



**FOREIGN
BROADCAST
INFORMATION
SERVICE**

JPRS Report

Soviet Union

Economic Affairs

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

19990322 085



Soviet Union Economic Affairs

JPRS-UEA-88-045

CONTENTS

12 DECEMBER 1988

NATIONAL ECONOMY

ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

Soviet-American Roundtable Discusses Reforms [Yu.P. Voronov, T.M. Boyko; <i>EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVO (EKO) No 10, Oct 88</i>]	1
Pessimism Expressed on Quick Achievement of 'Full Khozraschet' [G.V. Grenbek; <i>EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA No 8, Aug 88</i>]	11
Advantages of Forming Industrial Concerns Described [A. Shamov; <i>IZVESTIYA, 30 Aug 88</i>]	13
Practice of Lease Contracts at Industrial Enterprises Discussed	15
Two Views of Lease System [M. Krushinskiy; <i>IZVESTIYA, 11 Aug 88</i>]	15
Moscow Oblast Experience [V. Novikov, T. Rysina; <i>EKONOMICHESKAYA GAZETA No 32, Aug 88</i>]	18
Formation, Operations of Socialist Concerns Described [T. Bakradze, M. Ishchenko; <i>ZARYA VOSTOKA, 11 Aug 88</i>]	20
Bukharin's Role, Contributions Defended [V.P. Danilov, S.A. Krasilnikov; <i>EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA No 8, Aug 88</i>]	23

[ERRATUM: In JPRS-88-043 of 22 November 1988 p 1 in the article: "Gosplan Officials Assess Economic Reforms, Perestroyka," the term goszakaz was incorrectly expanded to read State Procurement Agency. The correct translation of goszakaz is state order]

NATIONAL ECONOMY

PLANNING, PLAN IMPLEMENTATION

Bunich Promotes Need To Reform Planning Mechanism [P. Bunich; <i>OGONEK No 26, 25 Jun-2 Jul 88</i>]	28
---------------------------------------------------------------------------------------------------------	----

INVESTMENT, PRICES, BUDGET, FINANCE

Use of Bank Interest Rate To Control Credit Demand Discussed	35
Theoretical Basis Examined [S.M. Bogomolov; <i>DENGI I KREDIT No 7, Jul 88</i>]	35
Operation Under New Conditions [A. Yu. Simanovskiy; <i>DENGI I KREDIT No 7, Jul 88</i>]	37

AGRICULTURE

AGRO-ECONOMICS, POLICY, ORGANIZATION

Kirghiz SSR Gosagroprom Economic Transformation Discussed [<i>SELSKOYE KHOZYAYSTVO KIRGIZII No 5, May 88</i>]	42
--------------------------------------------------------------------------------------------------------------------	----

POST-PROCUREMENT PROCESSING

Problems In Uzbekistan's Food Processing Industry	45
Food Processing, Storage Problems [M. Babintsev, A. Kucherenko; <i>SELSKAYA ZHIZN, 19 Jun 88</i>]	45
Food Storage Seminar in Tashkent [I. Akhmetov; <i>SELSKAYA PRAVDA, 8 Jun 88</i>]	48

CONSTRUCTION

POLICY, ORGANIZATION

- Price Formation in Construction Sector Viewed
[V.M. Didkovskiy, et al; IZVESTIYA AKADEMII NAUK SSSR: SERIYA EKONOMICHESKAYA No
3, May-Jun 88] 50

CONSUMER GOODS, DOMESTIC TRADE

POLICY, ORGANIZATION

- Restructuring in Garment Industry Examined
[A.V.Fedorova; TEKSTILNAYA PROMYSHLENNOST No 8, Aug 88] 59

HOUSING, PERSONAL SERVICES

- Georgian Buro Member Stresses Need for Improved Services
[K. Kostav; ZARYA VOSTOKA, 2 Aug 88] 65

ENERGY

ENERGY COMPLEX ORGANIZATION

- Policy Changes in Fuel-Energy Complex Favored
[N. Pravednikov, et al; PLANOVOYE KHOZYAYSTVO No 8, Aug 88] 67
- Question of Whether to Export Soviet Oil Debated
[P. Voshchanov; KOMSOMOLSKAYA PRAVDA, 15 Jul 88] 70
- Progress on New Tyanovskiy Field Noted [T. Nikolayeva; PRAVDA, 19 Jul 88] 74
- Experimental Coal Slurry Pipeline in Kuzbass [A. Illarionov; IZVESTIYA, 23 Jul 88] 74

TRANSPORTATION

CIVIL AVIATION

- Aviation Weather Service Problems Noted
[B. Kiselev; VOZDUSHNYY TRANSPORT, 27 Sep 88] 76
- Collegium Examines Flight Safety Issue [VOZDUSHNYY TRANSPORT, 27 Sep 88] 77
- Flight Safety Incidents Reported [V. Tamarin; VOZDUSHNYY TRANSPORT, 10 Sep 88] 80
- New Aviation Company Founders Interviewed
[V. Ksenofontov; VOZDUSHNYY TRANSPORT, 17 Sep 88] 82
- Aviation Center Upgraded to Institute Status
[V. Rzhavskiy; VOZDUSHNYY TRANSPORT, 15 Sep 88] 85
- Aeroflot Language Training Program Inadequate
[V. Tseyukov; VOZDUSHNYY TRANSPORT, 29 Sep 88] 86

EXPERIMENTAL SYSTEMS

- Magnetic Suspension Transport System Reviewed [S. Markosyan; KOMMUNIST, 9 Aug 88] 88

ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

Soviet-American Roundtable Discusses Reforms
*18200085 Novosibirsk EKONOMIKA I
ORGANIZATSIYA PROMYSHLENNOGO
PROIZVODSTVO (EKO) in Russian No 10, Oct 88
(signed to press 8 Sep 88) pp 75-96*

[Article prepared by Yu.P. Voronov and T.M. Boyko from roundtable discussion among US economists A. Bergson, Harvard University professor; J. Vanous, codirector of the consulting firm "Planecon"; G. Grossman, University of California professor; T. Gustafson, Georgetown University professor; H. Levine, University of Pennsylvania professor; J. Hough, Brookings Institute and Duke University professor; and E. Hewett, senior associate of the Brookings Institute, editor of the journal SOVIET ECONOMY, and consultant to the Democratic Party; and the Soviet economists L.I. Abalkin, member of the academy and director of the Economics Institute of the USSR Academy of Sciences; A.G. Aganbegyan, member of the academy and secretary of the Economics Department of the USSR Academy of Sciences; T.I. Zaslavskaya, member of the academy and director of the All-Union Center for the Study of Public Opinion of Goskomtrud and AUCCTU; V.P. Loginov, doctor of economic sciences, deputy director of the Economics Institute of the USSR Academy of Sciences; N.Ya. Petrakov, corresponding member of the USSR Academy of Sciences, deputy director of the Central Institute of Mathematical Economics of the USSR Academy of Sciences; and L.I. Rozenova, candidate of economic sciences and deputy chairman of USSR Goskomsen: "Major Reform: The Participants and the Observers"]

[Text] E. Hewett: The restructuring being carried out in the USSR, is this a historic inevitability or an accident brought about by serious adverse phenomena and the zigzags in development in the seventies and early eighties?

L.I. Abalkin: What we are talking about today is a profound reform of an authentically revolutionary nature, a breaking up of the present economic mechanism and management system, and the shaping of new ones based on the principles, ideals, goals, and social standards which we consider appropriate to socialism. Our views of socialism have been essentially renewed and have, it seems to us, become more profound and flexible. Much of what we are dealing with in practice are deformations of the principles of socialism, not true socialism. Were it not for those deformations, restructuring would take on a different form and would be conducted with different methods and in a different time frame; it would be easier.

But it would still be inevitable, because the scale and complexity of the economy have increased, the scientific-technical revolution has been dictating its requirements, essential shifts have taken place in the social

structure, there has been a sharp rise in the educational level of the work force, and people's demands and priorities have changed. The processes of overcoming the deformations, those of renewing and reviving socialist principles, and the objective logic of economic growth are joined together today in restructuring. The transition to full cost accounting (khozraschet), self-financing, election of managers, and so on—these things do not represent a search for the means of raising efficiency by 2-3 percent, but our response to a challenge of the times, to a challenge of history. We must prove socialism's capacity for renewal, for economic and social progress.

A. Bergson: We American scientists sincerely wish you success in restructuring, and that is why we feel a certain awkwardness in expressing a lack of confidence in the excessive attention which you have been paying to industry—to that sector which presents the greatest difficulty to general restructuring. Why don't you begin with the simpler sectors—agriculture and services, which promise a quicker return and furnish the material base for a growth of industry? China has been implementing that strategy effectively.

A.G. Aganbegyan: Even in the USSR the first steps to reorganize management were taken in agriculture in 1985 and 1986. Only in 1988 did the reform "move over" to industry. Investment policy was first changed concerning agriculture, and as a consequence agricultural production grew 10 percent between 1986 and 1987, which was the size of its growth over the previous 7 years. Compared to the average annual level in the 11th FYP grain production rose from 180 to 210 million tons, meat production from 16 to 18 million tons, and milk production from 95 to 101 million tons. Unfortunately, a sizable portion of the growth of agricultural production is directed toward reducing imports of grain and meat, which is why satisfaction of people's needs for scarce products has not improved as greatly as we would have liked.

I agree that the transformations in our agriculture are more modest than in China. But the USSR and China are completely different countries. Between 1953 and 1959 we had progress in agriculture on the scale now taking place in China. We were unable to use the untapped potential which China has used on the basis of manual labor by leasing out parcels of land because manual labor disappeared from our agriculture long ago. Our agriculture has 40 HP for every member of its labor force. We are traveling a different road, although, of course, we also could be doing more. The new model charter of the artel expands the rights of kolkhozes, envisages a system of purchase prices, and other measures are also being prepared.

L.I. Abalkin: In China, they spent 8 years beginning with agriculture, consumer services, and trade, building up resources, and then they made the transition to the reform in industry. We do not have that kind of time. We have used up the time which we let slip by, and we

cannot postpone the transformations in industry. The deadlines are tight, and we are forced to make the transition to full cost accounting without a reform of prices—which is undoubtedly a halfway measure. And the success will be modest. It will be greater insofar as the reform becomes integral and rounded off—at the beginning of the nineties. But we have no alternatives.

E. Hewett: Has this observation of yours been substantiated in theory?

L.I. Abalkin: I do not know whether the grounds which I am about to refer to can be called theoretical or whether they come from an awareness of reality. The first basis lies in the very rapid progress of engineering and technology. Should we let another 8 years go by, we would never become a state that is highly developed from the technical and industrial standpoint. During that time there will be yet another generation of equipment and technology (and in certain sectors even two). That could not be made up. The second circumstance has to do with social factors, with the disposition in society. People have become tired of waiting, have had enough of words, and are demanding serious steps and vigorous action.

We do in fact need a thorough reform in agriculture. But often oversimplified notions are expressed such as: if we convert the kolkhozes to the family contract—in 2 years we will solve all the problems. Family livestock projects which in a year or 2 have doubled the productivity of livestock are given as an example. But it would be naive to suppose that we will catch up with the United States in milk production per dairy cow by making the transition to the family contract. The dairy cows we have today will not produce that much milk even in the system of the family contract, even under an individual contract, and not even if you bring American dairy farmers over here. There have to be changes in livestock breeds, in the varieties used for farm crops, and in the technology. And when we say technology, we are referring to something quite different from the agricultural machinebuilding it now signifies; we are talking about infrastructure, good roads, grain elevators, and vegetable storage facilities. If industry remains what it has been, we will not manage to raise up agriculture even in 8 years.

H. Levine: Mr. Abalkin said that the people have become tired of words. Which means that if the public is to become actively involved in restructuring, there needs to be a visible demonstration right now of what the state has actually done and is doing in the area of increasing the quality of goods and foodstuffs, health care, housing construction, and other areas directly related to raising the standard of living. The economy has to be reoriented toward the output of goods that are really necessary and really good, it has to stop “producing for the scrap heap,” as Mr. Gorbachev put it in Bucharest.

But how is this to be done when at the same time gross volume is taken as a reference and the effort is being made to achieve annual growth rates of 4-5 percent

(especially in the transitional period)? It is not growth for the sake of growth that is needed. Given the limited nature of capital investments, will the necessary resources be found for the kind of development that is required both in machinebuilding, which will help to pull the economy out of the stagnation, and those branches working directly for the consumer?

A.G. Aganbegyan: There is unquestionably a contradiction between growth rates and improvement of quality. But raising the rates is not the decisive thing for us. The main thing is the new quality of growth and the qualitative shifts. So, if the rates are calculated correctly, then as the transition is made to the new quality, the price will also rise to some extent. That is why the qualitative shifts themselves will bring about a certain growth. For us, an annual rate of 4 percent and then 5 percent is not such a high rate. Nor is this a rate at which it is impossible to improve quality. I would refrain from rash judgments on this account. In recent years, the United States has been increasing output at an annual rate of 4 percent, but the qualitative shifts have also been appreciable. Japan has had growth rates of 7 and 8 percent as it improved quality. The rate is not the point.

As for the Soviet people's standard of living, it has, of course, lagged behind industrial might, the level of development of science and technology, and the educational level of the population. At first, the lag of the social sphere was caused by certain historical conditions; but over the last 15-20 years it has been compounded above all in connection with negative trends in economic development. The residual principle was established in the allocation of resources for the social sphere. By the mid-eighties we had taken a step backward from the 1960-1965 period with respect to many indicators. Now the social sphere has been given priority, predominant development of the relevant groups of branches is being safeguarded, and resources are being redistributed to perform the tasks of raising the standard of living.

Specifically, what has been done along these lines in 1986 and 1987? For the first time in 20 years we have reversed the adverse trend of stagnation in housing construction in which we built only 2 million separate apartments every year. In 1986, we built 2.2 million and in 1987 we built 2.3 million. The shift did not, of course, take place all at once: it is now permitted to redistribute to housing construction and social and consumer services as much as 10 percent of capital investments allocated for production facilities. By the beginning of the nineties we want to be building 3 million housing units a year.

In the last 2 decades, the average length of life in the USSR has decreased, and the mortality rate has risen. Among the specific reasons for this are the twofold increase in production and sales of vodka, the fourfold growth of wine sales and production, and that same residual principle for allocation of resources for health care. The share of the national income allocated to

development of the health service has been dropping all the while, and is now less than 4 percent, while in other countries it is 8-12 percent. That is why radical improvement of health care has become a most acute social problem. An interrelated set of urgent measures has been adopted, the first of which is the campaign to combat drunkenness. We have managed to lower the mortality rate from 10.6 to 9.7 per thousand. Average length of life has increased from 68 to 70 years, and a drop in the infant mortality rate has also begun. Yet these indicators are still substantially worse than in the advanced countries.

Preparation of a new pension law that will substantially increase the size of the average pension is nearing completion, and a reform of education is being carried out. The growth rates of the service sector have doubled; in this area we are considerably surpassing the planning targets. But I agree that the success might be greater, we might have achieved growth rates of 15-20 percent, not the 10 percent which we had between 1986 and 1987.

So far there have been no radical jumps upward in the standard of living. The problems which accumulated for decades in this area are not solved with redistributive measures. We need a spurt in the rise of efficiency. In the 12th FYP, labor productivity has to rise 1.5-fold, another 1.5-fold in the nineties, and over the entire period up to the year 2000—2.3-2.5-fold, accompanied by a twofold growth in the total volume of output. The main strategic lever for raising efficiency is radical acceleration of scientific-technical progress.

We have quite a bit of scientific-technical spadework that has been done, but development and application have been poor, largely because of the incorrect capital investment policy. The new thing in that policy is the redistribution of capital investments to machinebuilding and the course that has been adopted toward radical technical reconstruction of all sectors and branches, while new construction is being held back. In 1985, the rate of renewal of the products of machinebuilding was 3 percent, in 1987 it was 9 percent, and in 1990 it is to be raised to 13 percent. This will require a 4-5-fold faster renewal of the production plant in machinebuilding itself, which in turn requires doubling capital investments in this branch over the period 1986-1990 (in the 11th FYP they increased only 24 percent). Capital investments for technical reconstruction of machinebuilding in the period 1986-1987 increased more than 1.5-fold over the previous 8 years. But many branches have proven not to be ready for the change of product and for technical reconstruction. State acceptance has also had an effect; it has shaken up the development of a number of machinebuilding enterprises which were in a rut. The situation is gradually coming around.

Unattributed remark: From what one can see in the 12th Five-Year Plan, the strategy of the CPSU is to put emphasis on intensive factors, right?

V.P. Loginov: The level of utilization of intensive factors in economic growth is determined by the ratio between the extractive and manufacturing branches of industry and their development. The extractive complex, especially the petroleum and gas extraction industries, grew at accelerated rates for a long time. Everywhere in the world resource-saving technologies have been introduced, and there has been a relative reduction in the consumption of fuel and energy (per unit of the gross national product), but in our country, in spite of the steady rise in costs of mining raw materials and fuel, the extractive and fuel and energy complexes have continued to "swell" without interruption. The appropriate theoretical conceptions were even supplied to support this "strategy."

In the 12th FYP, for the first time in all the years of Soviet power, we will not be aiming at a substantial expansion of growth in the volume of raw materials extracted (excepting gas), and plans call for covering the entire growth in the output of the manufacturing branches while nearly stabilizing the extraction of all types of natural resources. Two-thirds of the need for fuel and raw materials would be met through conservation and reduction of standard rates of consumption. The small increase in coal production will come from strip mining.

Machinebuilding will be developing at the fastest pace (twice as fast as the industrial sector as a whole): 44-45 percent over the 5-year planning period as a whole. In the manufacturing branches, the finishing stages of the production cycle are to grow the most. For instance, in metallurgy it is rolling mill production that will grow at faster rates, not the smelting of metal, and in the chemical and petrochemical industry it will be those production operations producing gasoline, oil, and plastics, i.e., end products.

E. Hewett: I am surprised to hear that you intend to stabilize the production of all fuels except gas. As far as I am aware the 12th FYP still calls for an increase in petroleum production. This is an expensive program: after all, every year a certain number of oil fields dry up. Doesn't this kind of policy threaten intensification? You are producing approximately twice as much petroleum as the United States. If you managed to reduce that volume, that would be a substantial contribution to restructuring. Natural gas is an inexpensive source of energy, but increasing its extraction is a conservative and expensive policy, even if petroleum and coal production are maintained.

V.P. Loginov: The plan calls for an increase of only 40 million tons in petroleum production. This figure is negligible against a total volume of extraction of 600 million tons. At present, we cannot reduce petroleum production in absolute terms, our policy is imposed upon us because we are supplying petroleum not only to our own economy, but all the European socialist countries, and no one will give it to them except us. Such a

policy is, of course, wasteful, since every new ton of petroleum is more expensive to bring up than the last one. The transition from petroleum to gas as a fuel is already yielding a sizable economy. We have begun the extensive gasification of transportation. There is no question that the restructuring of technology in petroleum refining and of energy consumption is more difficult than increasing production. It takes larger capital investments in petroleum refineries and more time to increase the yield of the useful product from every ton of petroleum than it does to drill new wells. If we had had less petroleum, reality would long ago have forced us to invest more rapidly in refining. As it is now, performance of the program that has been drafted for restructuring the petroleum refining industry is being postponed on the grounds of a shortage of resources, the need to create new equipment, and so on.

A. Bergson: It is my understanding that the main direction of restructuring in the USSR is the more rapid and effective application of scientific-technical advances. It is significant that everyone who studies the Soviet economy calls attention to the fact that there are many restrictions at the enterprise level and the incentives and rewards for innovations are manifestly inadequate. The risk of ruining one's career, of losing the prospects for growth if new equipment does not work right, is quite real. And at the same time, there is no competition, which is precisely what puts pressure on the manager and necessitates updating. Why don't you organize competition, on the one hand, among your own enterprises (for example, allow enterprises to produce any product at their own discretion; in case of a mistake they will answer for it with their own resources); and on the other between Soviet enterprises and Western firms exporting products to the USSR?

V.P. Loginov: The theory of the advantages of large enterprises has been dominant in our economic science and in our practice. As a consequence, giant enterprises producing many types of products of machinebuilding and consumer goods have been created in many branches in the USSR. In the thirties and forties, the small and medium-sized enterprises did not have as good indicators as the very large ones. That is why our mania for bigness has had the result that a few enterprises, often just one or two, hold a monopoly over many types of industrial products. In that kind of context, it is difficult to improve product quality and to bring about conditions for application of new technology, since the monopoly stands in the way of all that. But now the situation has changed, flexible production systems, computers, progress in transportation are making it possible for small and medium-sized enterprises to achieve the operating results of the large ones and even to surpass them. As the network of enterprises producing products of the same kind expands, then, the sphere of competitive relations will in future be considerably expanded.

A.G. Aganbegyan: We put a broad interpretation on Lenin's aphorism "Every monopoly results in decay." It is possible that legislation will be adopted against

monopolization both of production and also of certain spheres of consumption. We consider the hypertrophy of excessively large enterprises to be a defect. The USSR has a total of 45,000 enterprises (not including kolkhozes, cooperatives, and so on), but it should have a few hundred thousand. Imports will become an important competitive factor as the transition is made to a convertible currency. We have set the goal of achieving ruble convertibility first of all on the markets of the socialist countries, and then on the world market as well. But to do that we have to carry out a price reform and increase the competitiveness of our goods. We have been cut off from the world market for long years because of the low quality of some of our goods and because of trade restrictions.

V.P. Loginov: Decisions have already been made whereby enterprises will themselves begin to dispose of foreign exchange. When they sell their products on the world market, they will use a sizable portion of the foreign exchange for their own purposes (to buy equipment abroad, to improve production).

I agree that economic incentives for application of highly effective technologies and equipment are necessary. Directive methods are also dominant at present in the field of scientific-technical progress. They are justified when applied to the application of revolutionary and fundamentally new technologies, new production operations, which in most cases do not yield a profit for several years and require subsidies and credit. The profit realized in selling a product must become the incentive for applying most technologies and innovations. Unfortunately, most products of intellectual labor have not been drawn into market relations in our country, and they do not have a price. Yet the relative share of these products is an indicator of a country's level of development. We would do well to imitate the foreign experience in setting up a market for scientific-technical products, information, computer software. But a market for scientific-technical products will be effective only in interaction with the market for traditional goods, which also does not exist at present.

G. Grossman: Under the new conditions will enterprises still have to ask permission from ministries for every little thing? How are the functions and status of ministries changing, if they are?

L.I. Abalkin: I will state my view on these questions, which is why I will be categorical. In principle, the ministries must not be responsible for the operation of enterprises. So long as they are responsible for them, the old bureaucratic mechanism of management will be preserved. It is quite difficult to remake the system and indeed even people's psychology if the ministry is to be responsible for the operation of enterprises as it was in the past. If that kind of responsibility is removed from it and it itself does not carry on economic activity, then naturally financial methods of monitoring and evaluating performance are inapplicable to it.

But it remains an element of the apparatus of the state. With what functions? Those functions are to solve the problems of the branch as a whole, as an organic system, to define its technical policy, to study the needs of society for the product in question, and so on. How to put an end to the bureaucratic methods of ministry intervention in the activity of enterprises? By a sharp reduction in the management apparatus, by simplifying its structure, by developing democracy in the management of production, through election of directors, by their accountability to collectives rather than to the superior authority, and through self-management. All of this is not a final solution, but a temporary step. Perhaps in 2 or 3 years we will be taking another more radical step. We should not be hasty, we need to see how things are going.

Pricing Reforms

E. Hewett: In a system in which the price structure has been disrupted and prices are not related to consumption, enterprises can realize a profit in places where there actually isn't any. By postponing the reform of wholesale prices and linking it to the reform of retail prices, you are holding back the economic reform. The Hungarians, for example, first changed wholesale prices and then retail prices, their system of subsidies pursued policy goals.

A.G. Aganbegyan: I agree that it would be good to make the transition to full cost accounting in association with a new price system. We were unable to begin the price reform in 1985, since we did not have a general conception at that time. What is more, it is impossible to prepare the kind of price reform we would like in half a year or a year. For the first time in our history we intend to revise wholesale prices, rate schedules, purchase prices in agriculture, and retail prices. More than that, not only to revise price levels and relations, but also to reduce the share of centrally set prices and to increase the share of contract prices and free prices. If the reform is not prepared thoroughly enough, we might make a large miscalculation and cause consequences so undesirable as to nullify everything else. Unlike Poland and Hungary, there is no one who will help us if we miscalculate.

Cost accounting in the context of the old prices will not, of course, be complete, and self-financing will not be fully effective. But along with the shortcomings there are also advantages here. Managers in the economy and collectives will gradually become accustomed to making their own decisions. With the transition to self-financing, after all, the development fund will triple and the fund for social development will quadruple.

N.Ya. Petrakov: What is the purpose of the reforms intended in pricing? The thing that is traditional for the Soviet economy is the change in price levels (the price reform) and the new thing is changing the pricing mechanism itself. We want to create a more flexible price system that is not so centralized, to create a market for

machines and equipment, to make the transition to wholesale trade in those things. The prices of strategic resources and goods which determine the structure will, of course, be set centrally as in the past. We have not so far had the main attribute of the market—the balance between supply and demand through the dynamic behavior of prices.

L.I. Abalkin: I would like to emphasize that we will achieve market equilibrium not only by means of prices and income regulation, but also through the measures of direct planned management of proportions in the national economy. The role of prices in our country is in many respects different than, say, in the classic model of a market economy.

By no means everything in our country is represented as well as we would like; the model which we intend to introduce by the beginning of the nineties is frequently compared to a Western-type market model. Our steps are measured according to how close we come to that. But we are not working toward that model, we do not consider it ideal. Our model is not a purely market model and will not be.

J. Vanous: What is it that you do not like in the present price structure?

N.Ya. Petrakov: Just as in an underdeveloped country, we have very expensive equipment and products of the manufacturing branches and relatively inexpensive raw materials and agricultural products. We will illustrate by comparing prices of Soviet automobiles and meat. It turns out that an automobile costs 8 tons of meat. But if you compare the costs, you see that only 0.5 ton of meat should be required for the automobile. Present prices are reproducing an economic situation that is altogether wrong.

Our machinebuilding has extremely high profitability—25 billion rubles, while manifestly depressed prices of raw materials are hindering the penetration of resource-saving technologies into industry. They send the wrong information to planning agencies and enterprises about real production costs and about the real need for raw materials. The fuel and energy complex has prices that leave it approximately 14 billion rubles short for development. In actuality, it is perched on subsidies.

In industry, the profit amounts to 100 billion rubles, the turnover tax amounts to 97 billion, and overdepreciation (depreciation of assets already amortized) amounts to 36 billion rubles. These represent accumulation of industry at present prices. But its needs are approximately 85 billion rubles. About 150 billion rubles of excess profit are built into the prices of industrial goods. The population receives 73 billion rubles from the budget in the form of subsidies. That is, there is a redistribution through the budget and prices which have been constructed incorrectly. We must alter decisively the price

relation between the products of the extractive branches and those of the manufacturing branches and thereby come closer to world price structure on the domestic market.

It is a complicated matter to introduce flexible pricing all at once. For long years the state was in essence covering the poor performance of enterprises and the output of low-quality products by means of subsidies, tax breaks, exemption from contributions to the budget, and short-term credit (its growth over the period 1971-1985 was twice as great as the growth rate of the gross national product). The growth has been especially rapid for short-term credits to agriculture (12.6-fold over 15 years) and to construction (9.6-fold), that is, to precisely those sectors where the return of capital investments was lowest. Unrepaid short-term credit became long-term. Money not backed up by a physical equivalent was pumped into circulation in that way.

If the money system is to be restored to health, the credit potential of banks must be limited to real liabilities, and the percentage rate made a more effective management instrument. Self-financing will help to put a stop to resources not earned, unjustified credits, and subsidies from the state budget. Enterprises will be left strictly limited money resources which will not allow them to pay for above-allowance inventories and to pay wages for production of products which are not in demand. Quite a few construction projects should also be decisively frozen, since the lengthy construction time is tying up both physical resources and money resources.

H. Levine: Mr. Petrakov, the theory that the system of flexible contract prices is impossible unless supply and demand are balanced has been developed in your writing and in the work of Abalkin, member of the academy. Many Western economists feel that the dependence is the other way around: you cannot achieve balance on the market until prices are flexible and rise to reduce demand and increase the supply. If you wait to introduce a flexible price system until the market is balanced, you may wait until we have both retired....

N.Ya. Petrakov: I never considered market equilibrium to be a prior condition for the introduction of equilibrium prices. The issue lies elsewhere: the transition to the system of free prices causes them to rise rapidly. Inflation has been artificially held back by rigid price controls. This has given rise to a deficit and what is called "extra" money. In my opinion, a simultaneous transition is needed to a flexible pricing system and reduction of the amount of money in circulation. This can be done by means of an extreme measure—a monetary reform, but there are also other ways.

E. Hewett: You will try to avoid inflation, but you will still have it regardless of what prices you set. Of course, it can be controlled by means of special taxes. I do not think that the Soviet government is bold enough to carry

out a monetary reform. Right now, ordinary citizens are paying far higher prices than those indicated in price lists. Prices have been rising rapidly in Yugoslavia, Poland, and Hungary.

N.Ya. Petrakov: Many officials in planning agencies feel that a monetary reform would be worthwhile. I am not an adherent of that point of view. Although a large portion of the population living on current income, receiving and immediately spending wages, would evidently not perceive a monetary reform as a disaster. It would be a different matter for those who have savings. A fine point of this is that without specific studies we cannot judge how those savings have been built up—whether through the person's own work or by speculation. What is more, the problem of "extra" money cannot be reduced to cash circulation. A large amount of "extra" money is held by enterprises, because for a long time they received preferential credits and subsidies that were not related to the end results of their operation. Enterprise finance has not been isolated from the monetary system as a whole. A portion of the resources of enterprises goes over to cash through the payment of wages and bonuses. The most radical solution would be to carry out a monetary reform, price reform, and reform of wages all at the same time.

A.G. Aganbegyan: As for changing prices of foodstuffs, the directives of the CPSU Central Committee are as follows in this area: the reform must be carried out by the most democratic means, its conception should be published and discussed in advance and the decision made according to the results of the discussion; and the population's standard of living must not drop.

L.I. Rozenova: USSR Goskomtsen is to submit proposals for improvement of retail prices and for ways of offsetting their changes in the 2d half of 1988. If we get through the first stage successfully, material will be published in 1989 for the nationwide discussion in the country. In view of the extremely great social importance of retail prices, the directives of the CPSU Central Committee stipulate that their change must not only result in a deterioration of the standard of living of the workers, but on the contrary must raise that level for certain categories of working people and must achieve greater social justice.

H. Levine: Mr. Petrakov, you and other Soviet scientists have been proposing introduction of a system of flexible prices combined with planned distribution of investment resources. Prices will be used to control initial decisions. We consider this to be the system of full cost accounting rather than a system of full competition.

N.Ya. Petrakov: It is usually thought that in the context of competition the price level controls the distribution of investment resources. There is a certain connection between prices and investment policy. But in a planned economy capital investment policy is determined by the plan. I think that this process must be mirrored in the

price system. If planning agencies assume responsibility for determining the directions which are to be given priority, then the priorities must also be reflected in the price level. If they have the correct conception of the strategy for economic development—prices will balance supply and demand. If as a consequence of their mistake some branch has undeservedly become a priority sector, this will immediately have an impact on the price level, and the demand for this product will drop sharply. It turns out that the plan has to be revised. With the present prices, which are not very mobile, the demand of branches for a particular product is distorted. The planned distribution of resources must be backed up with a system of planned prices that reflect priorities. Flexible pricing also presupposes flexibility in the distribution of resources, which is as it were delegated to other and lower levels of management. But a flexible price becomes meaningful only when an enterprise can acquire resources with sufficient freedom independently of the planning agency.

J. Vanous: What will the relation be between real and planned prices in connection with the planning of capital investments?

N.Ya. Petrakov: It is difficult at this point to assess how prices will move. It is unimportant what is taken as a benchmark. Suppose we adopt the plan as the benchmark and establish prices accordingly. If we see that an imbalance has occurred, we must revise the targets contained in the plan.

Of course, it is tempting to suppose that the market provides full information for compiling the plan. But as of this moment we do not have such a market in our country and there is no such information to be obtained. It would be naive to say the least if we simply proclaimed that pricing is free and assume that the thing is done, and then we would regulate investment policy. First of all, the monetary system is in a disorganized state; second, there is no market that free (not even in the United States).

J. Hough: If I am not mistaken, preparation for compiling the 13th FYP will begin in 1988. It has to be worked out in the new prices. Is that realistic?

L.I. Rozenova: We are doing everything to achieve that. The new 5-year plan must be calculated in new prices. The new wholesale prices for coal, petroleum, gas, metal, the products of machinebuilding and industrial rate schedules will take effect on 1 January 1990, and the new wholesale prices and rate schedules in construction and purchase prices of agricultural products as of 1 January 1991. The revision is supposed to improve the relations of wholesale prices between the products of raw materials branches and the manufacturing branches of industry. The prices of coal and petroleum are being almost

doubled, the future wholesale price per ton of petroleum will be 70 rubles. If the price of coal is taken as unity, then the price of gas will be 1.3-1.4, and the price of mazut 1.7-1.8.

Prices are to be reduced on electronics and equipment containing electronics (machine tools with NPC, machining centers, etc.). If the motivation to apply technology is to be increased, the prices of many types of products of machinebuilding have to be lowered, but average prices in the branch will remain unchanged or will rise 1-2 percent.

A. Bergson: When prices rise in machinebuilding, then the charge for electric power usually doubles. If electric power rates are raised, then prices will rise sharply in the petrochemical industry. As a consequence, there will have to be more enterprises operating at a loss following the reform. They now number 13-14 percent in your country.

L.I. Rozenova: There will still be enterprises operating at a loss. Building a price system as a function of the performance characteristics and quality of machines and equipment should be seen as the main direction in improving their wholesale prices. The departure from honoring individual costs and objective reflection of performance parameters in the price will have the result that enterprises manufacturing outdated equipment will suffer irreversible losses in cost-accounting income, wages, and social benefits.

G. Grossman: We know from the writings of Soviet economists that prices in the USSR have been covering concealed inflation. Are any sort of procedures being introduced to keep contract prices from generating new inflation?

L.I. Rozenova: The contract price must be set within the limits of 70 percent of the improvement of performance characteristics so that 30 percent would have to be redistributed to the consumer, thereby guaranteeing the effectiveness of the new equipment's application. This limitation is being introduced so that prices do not increase faster than performance characteristics, so as to get away from the manufacturer's dictate. Whereas earlier the price was formed on the basis of standard costs and profit within the limits of the benefit, now the price will be determined as a portion of the useful benefit from improvement of the performance characteristics.

J. Hough: As far as I know, the 70-percent rule has already been in effect for some time. And the producers raised the price of the new product in order to make it profitable, and the consumers cannot exercise effective control. Won't the defects of the previous price model crop up in the new one, which supposedly depends directly on improvement of the commodity's performance characteristics?

L.I. Rozenova: The following rules have been adopted. The client will make out the request for creation of the new product and the maximum limit price so as to take into account the improved performance characteristics, and the contract price is also determined jointly with the client, although earlier pricing authorities were the producer's partner. In order to orient developers toward creation of highly efficient new generations of machines, in the price model the entire growth of the useful benefit is added to the price of the equipment being replaced, adjusted by the factor 0.9. This means that if the improvement of the performance characteristics is negligible (within the 10-percent range), then for all practical purposes the old base price remains in effect.

G. Grossman: How can you know in advance the consumers of your product and its distribution among various branches and enterprises? The benefit will change even for a single consumer depending on how widely he intends to use this technology. The useful benefit is determined only afterward. It in turn has an impact on the behavior of the future customer.

L.I. Rozenova: The economic benefit will, of course, differ from one sphere of application to another and from one particular customer to another. Which is in fact why the contract prices will differ. When the assignment is issued for development of new technology, the principal client is already known. He is in fact submitting his requirements. The contract prices will be set so as to take into account the benefit of each customer. The manufacturer, who is interested in offsetting his costs, will realize maximum profit, and will at first send the equipment into those spheres where the greatest benefit is anticipated from its use, as a rule, to the principal client.

H. Levine: The prices of new products are an important element of the reform. In a market economy, a mechanism has been worked out that controls prices relative to performance characteristics. If the producer sets too high a price, he simply loses money. The other way is administrative price regulation and centralized price monitoring. Preference has to be given to one mechanism or the other; they do not work effectively together. What is Goskomtsen making the principal control mechanism?

L.I. Rozenova: As high as 65-70 percent of prices of new products will be contract prices. The contract prices will remain in effect for 2 years. Then they will be entered in price lists subject to approval by USSR Goskomtsen, ministries, and local authorities or even in the price list of the enterprise. Between now and 1990 we will be "purging" our price lists and transferring a sizable portion of them to approval by ministries and directly by enterprises.

The prices of new products will be contract prices, but not, of course, just any prices, but prices that conform to rules that have been formulated by USSR Goskomtsen. The producer of a quality product at lower cost will be the gainer. It is beyond question that we cannot look

over the shoulder of every producer and every consumer. The person who pays the money will have to be the main inspector. But we would still have spot checks on how the methodology is being observed, whether it needs to be improved, who it is hindering, and who it is helping. We will also be checking to see whether the contract prices are set within the limits of 70 percent of the useful benefit.

T. Gustafson: What rights will you give to the consumer so that he can really avoid the producer's dictate? Democratization in pricing is also a difficult road. If they are to follow up on enforcement of the rules, won't pricing authorities have to greatly expand their staffs, which, incidentally, will be working against independence and democracy?

L.I. Rozenova: We propose combating the producer's dictate above all through the limit price, which is cleared with the client in the design stage. The manufacturer cannot exceed it. This is a mandatory condition. Economic penalties have also been envisaged. Up to now only what has been acquired illegally by hiking up prices has been confiscated into the state budget. The penalty is now being doubled. In addition to the confiscation into the budget, a violation of state price discipline entails a fine in the same amount. If a sample check is run on 10 enterprises and 1 is found to have hiked up prices, and if this enterprise receives a double penalty, we hope that this will have a sobering effect on the other 9. What is more, in the context of self-financing the consumer has begun to count his money and impose higher requirements as to the price level.

As for staff size, USSR Goskomtsen now has about 400 people and there will be a reduction, just as in other departments.

A. Bergson: The main objective of your restructuring is to increase the economy's efficiency. But, as has already been said here, it is extremely important to have in mind the projection of economic relations on the social sphere and to win the support of the people. I would like our Soviet colleagues to describe the social content of restructuring in more detail.

T.I. Zaslavskaya: I will give several specific examples of the social content of restructuring. The first is democratization of disposition of state property; the second is distribution of rights and duties among party, soviet, and economic authorities in management, bringing their rights into conformity with their duties; the third is pluralization of the participants in economic relations, development of self-employment, new cooperatives, contract relations and leasing relations, expansion of the economic activity of local soviets; the fourth is increasing competitiveness in the economic sphere and correspondingly the strictness of economic relations (there will be greater differentiation in the economic condition

of work collectives and individuals, enterprises may go bankrupt); and the fifth is the increased increase in the occupational mobility of individuals and manpower.

G. Grossman: We have been striving for greater stability in people's lives. In the USSR, movement is now going in the opposite direction. It seems that excessive stability and tranquillity of the work force are detrimental to the dynamism of the economy and society. How do you see the specific role of stability in economic life, including unemployment and bankruptcy?

T.I. Zaslavskaya: As a matter of fact, we face a difficult task. We want to get away from the socioeconomic system which was soft on the individual, which offered an easy method of survival and reproduction of manpower (with housing that was actually gratis, artificially depressed prices on foodstuffs, free medicine and education), since it is not dynamic and has not been satisfactory in its results. The Soviet people have been accustomed to living a carefree life, though a modest one, and they have not been accustomed to economic stress, risk, and danger. That is why we are now proposing to them the transition to a completely different way of life. This is difficult and painful, of course, for most people. So those who have been suffering from being fettered, from underutilization of their energies, are undoubtedly the gainers.

I want to emphasize that we absolutely must have a well-thought-out strategy for overcoming future difficulties and social tension; otherwise restructuring can be brought to a standstill. For example, in Hungary they deem it economically indispensable to eliminate unprofitable enterprises, but the lack of preparation for dealing with the social problems of the manpower laid off is becoming a brake on the economic reform.

The transition of enterprises to self-financing will inevitably create incentives for laying off unnecessary manpower. Which workers will enterprises lay off first? We must suppose it will not be the best ones, but rather those who are least skilled, undisciplined, and so on. Which means that we need to have programs as to where these people are going to be employed and what form of employment that will be. Similar problems have arisen when disciplined and skilled people were laid off because they were elderly or not very healthy, or women with small children.

Problems related to the vocational aspect of occupational mobility and the retraining of workers are equally complicated. So far there has been no differentiated approach here; usually we are inclined to deal with the total number of workers who may be laid off and who have to be placed in jobs. But the far more important thing is where the potential jobs are located and what requirements they are laying down for manpower of a particular kind.

Calculations show that most of the workers who have to be laid off in the production of physical goods will be able to find jobs in the service sector. But a great many problems remain. To be specific, people have their own ideas about where they are willing to work, and those ideas may not match the structure of job vacancies. Over a number of decades we have become accustomed to not changing our job or our occupation or the place where we live unless we ourselves want to. In addition, up to now the service sector has been considered a "second-class" place to work, so that it is no accident that wages there average 60 rubles less than in the branches of physical production.

A. Bergson: In this case, it will evidently be useful not only to revise the wage levels, but also what Mr. Gorbachev has called cooperative socialism. By moving into the cooperative sector, people will be able to realize high earnings and prestige. In the West, those who work a lot and those who take risks often receive high earnings [original reads "expenditures"]. The risk entitles one to a higher income. If you do everything you intend, there will inevitably be greater differentiation of income. How do you feel about that? Are you ready for such changes? And what does high income mean in your terms? Does there have to be a ceiling?

T.I. Zaslavskaya: The notion of the exceedingly great social value of equality, including equality in income, has struck deep roots in our thinking. The differentiation of employment income in the USSR at present is relatively small. Moreover, broad strata of the population, just like the managers, feel that there is something shameful about earning a lot. It is fine to earn 500-600 rubles a month, but if a man earns, say, 2,000 rubles a month, then people see this as dishonest income that has not come from labor. He presumably could not earn that much by honest labor. When someone realizes very high income, people perceive this as a violation of socialist justice. Here principal attention is paid to how much the man received, not what he did or what he contributed to society. This wrinkle in the social consciousness is holding back restructuring even now. People have to be given an opportunity to fully realize their work potential, and that potential is not always the same by any means. The main thing today is to stimulate every person to work up to the full extent of his abilities so that the engineer looks on the design he is developing with maximum responsibility, so that the kolkhoz member brings in a harvest that is 5-6-fold larger than now. The person who achieves extremely high results in his work must have equally high income, and moreover he must not be ashamed of it, but must be proud of what he has achieved.

Where personal income is not formed on the basis of rate schedule systems, but by the law of the market, essential differentiation of income is inevitable. Moreover, a certain portion will not be in line with fair distribution on the basis of work. This has to be consciously accepted

if we want to develop the economy. And relative justice in distribution can be achieved by progressive taxation that takes a slice out of accidental income.

Now about restrictions. Take, for example, people who do creative work. USSR People's Artists, whose talent and work the country has recognized, receive about 1,000 rubles per month. Approximately the same amount is earned by people known as *shabashniki*, who do not possess unique abilities and talent, but who do good work for a 14-hour day and have no days off or holidays. A thousand rubles can provisionally be taken as the maximum level of monthly income in social production.

In the private sector, income may be 2-3-fold greater. After all, the intensity of work is at a maximum there, the creative component is fully employed, there is a risk in losing one's resources and not receiving a return. Of course, a man will not be entirely destroyed, since in our country people engage in self-employment as an addition to the job they have in social production. If the most energetic and enterprising individuals are able to bring down 2,000-3,000 rubles a month, then this becomes a strong incentive for improvement of the activity of others. But some kind of ceiling is indispensable. Say, when income exceeds 10,000 rubles per month, then it is easy to build up an amount which would make it possible to live comfortably on the interest, without working any longer.

T. Gustafson: We get the impression that as a consequence of restructuring some regions are losing more and some (mainly the European part of the USSR) are getting more. As a matter of fact, the redistribution of capital investments on behalf of reconstruction largely "settles" in the European part, where the fixed capital is concentrated; the restriction on new construction has an impact mainly in Central Asia and Siberia; the reduction of subsidies will again be harmful to Central Asia; if expenditures for social welfare are to depend on the income of local enterprises, then the best conditions will be created where the richest enterprises are located, that is, again in the European part. Can it be that the drafters of restructuring did not pay enough attention to the possible serious consequences it might have for Central Asia and for the nationality question in general?

T.I. Zaslavskaya: It seems to me that the regional aspect of restructuring has still not been worked on sufficiently. Until the overall conception of restructuring was formulated, it was early to differentiate it by regions and republics. Now the time has come to look at the impact of the measures being taken in a regional breakdown. In my opinion, it is not the center, but the regional institutes, which know best the local problems and can competently apply the general conception to the local conditions and see what is happening from place to

place, that should be the decisive scientific force in this area. There are quite a few problems in Central Asia, as there are in other regions. But they should be figured out from within.

Siberia is a region that is just being developed, so that construction of new enterprises there will undoubtedly continue. What is more, there are things which should undergo reconstruction there. So that I would not say that reconstruction is disadvantageous to Siberia, that it is supposedly losing because of the measures that have been outlined. That is not so. But there are social problems related to regions. For instance, if we make development of the social infrastructure dependent upon the efficiency of economic activity, then the danger arises that in some cities and regions enterprises will create wonderful conditions for people's work and lives and will begin to attract the most qualified personnel. Others will be incapable of that kind of development and will never be able to progress. If we do not create a reliable economic mechanism in good time to guarantee more or less equal living conditions for various groups of the population in different areas, then there will be an intensification of the socially unjustified differentiation of living conditions, of the adequacy of the infrastructure for social and consumer services, the adequacy of various forms of services of various types in cities and rural areas (the largest, large, small, and rayon centers, central homesteads, peripheral settlements), as well as from one region or republic to another.

J. Vanous: In the United States, there are lively discussions about who in the USSR is supporting restructuring, who is in the opposition, and how it is seen by blue-collar workers, the intelligentsia, and young people.

T.I. Zaslavskaya: Little has been done so far in the way of reliable sociological research with sound methods on the attitude toward restructuring. What is more, direct questions (such as: Do you support restructuring or not?) yield unreliable results. More precise methods have to be developed, and they need to be used to discover people's attitude—not toward restructuring in general, but only toward the specific measures. Usually, a person supports one thing, is doubtful about another, does not agree with a third. In this case, the overall response offers nothing. That is why the judgments I have expressed are more intuitive in nature.

When restructuring just began, a sizable portion of the working class, intelligentsia, and peasantry took a waiting position. There was distrust about the effectiveness of reform engendered by the Khrushchev era. But in the period since that time fundamental shifts have taken place in the country's social-psychological and political climate. The working class and intelligentsia are reacting to the growing *glasnost* as to the satisfaction of a real need. The more open management becomes in its character, the more vigorously self-management develops, the stronger people will feel the decisions taken to be their own.

Young people support restructuring more vigorously than the older generation since they understand that this is a vital issue for them. We older people have mainly already lived our lives.

People's personal system of values and character are taking on colossal importance. For some people the main thing is to have more rights and under that condition they are ready to bear more responsibility. Others, on the other hand, waive the rights just so no responsibility is added. The way out, in my opinion, lies in the replacement and rotation of supervisory personnel, in the purposive selection of the most energetic people for the leading role, in an influx of a new and more vigorous generation.

N.Ya. Petrakov: It is obvious to us today that radical transformations in the economy and in management will not yield appreciable results without equally large changes in the country's political, ideological, and spiritual life. The principles of cost accounting cannot be fully implemented unless democratic principles are carried out consistently. Democracy presupposes that a man's interests are protected against all intervention that has not been provided for in legislation. That is why major changes are also needed in the method of the activity of party committees at all levels. If those methods are to be changed, responsibility for fulfillment of the plan by every enterprise must be taken away from the party committee and the party secretary. Otherwise they will intervene in everyday economic life as they have in the past.

Habits, inertia, and the complexity of the transitional period are, of course, having their impact. The reform itself has to be protected against attempts to distort it. A permanently operating democratic mechanism has to be set up that would incorporate everything to guarantee the irreversibility of restructuring and the people's active participation in it, that would advance the most vigorous people to the leading positions, that would be sensitive to people's moods and would make the necessary adjustments in its operation.

COPYRIGHT: Izdatelstvo "Nauka," "Ekonomika i organizatsiya promyshlennogo proizvodstva," 1988.

Pessimism Expressed on Quick Achievement of 'Full Khozraschet'

18200030b Novosibirsk *EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA* in Russian No 8, Aug 88 pp 95-100 (signed to press 30 Jun 88)

[Article by Docent G.V. Grenbek, Candidate of Economic Science: "No Provisions For Going Over to an Ideal Model"]

[Text] 1. The concept of an ideal cost accounting [khozraschet] model (so-called "total khozraschet") as a basis for the economic system being developed in the country

exists in the scientific literature. The difficulty is to predict when, if at all, it can be implemented. At the very best we can hardly hope to attain this by the year 2000. This is apparent from an assessment of the current economic situation and of what is needed to make the transition. Furthermore, neither the Law on the Enterprise nor the package of decrees on improving the economic management system even envisage the ideal model's practical implementation.

What are the limitations of the Law? Firstly, wage payment and khozraschet forms of incentives. Two variants are envisaged. In one the wage fund is retained as a guaranteed portion of wage payment. The expenses are included in the cost of output and are fully covered in the planned price even if the enterprise is planned to operate at a loss (in that case through subsidies from the superior organization). Khozraschet does not allow the wage fund to increase faster than output, while the material incentive fund is only marginally dependent on khozraschet income. Therefore this variant does not implement the ideal khozraschet model.

The second variant consists in the formation of the wage payment fund (without its division into a wage fund and material incentive fund) according to the balance principle, based on the results of an enterprise's khozraschet activity. It approximates the ideal model only if the enterprise is independent and the distribution of khozraschet income in fact depends on results. A few isolated enterprises are currently working according to this variant, but no extensive introduction is envisaged at this time.

The draft Law on the Enterprise provided that all depreciation deductions be placed at the disposal of the enterprise, in the production, science and technology development fund. This offered the promise of some aspects of the ideal khozraschet model, but the formula was dropped in the final wording. Instead, proportional distribution of depreciation between the funds of central agencies and the enterprise was introduced. Now even the largest plants cannot finance reconstruction from their own depreciation funds, because the equipment at them is so expensive and much the worse for wear and tear. Furthermore, they have huge maintenance costs, which are covered by a portion of the depreciation moneys. The machine building industry developed slowly, which makes it impossible to reduce maintenance by writing off of equipment more quickly. This is a problem which the law cannot resolve by itself. **But proportional distribution of depreciation deductions is a risky recourse.** By using it over the past decades we have reduced Magnitka [Magnitogorsk Steel Works], KMK [Kuznetsk Metallurgical Combine] and other large and medium plants to the state of a squeezed-out lemon.

Besides, price increases exceed the growth in the effectiveness of new equipment by so much that even if the depreciation moneys are retained by the plants they would not be sufficient for even simple technological

upgrading. Ten discarded old lathes have to be replaced by at least five numerical control machine tools (in terms of capacity), and one NC machine costs 8-10 times more than a lathe. But this is just another economic problem which the Law cannot resolve.

In working capital there is an approximation of the ideal model: plants have been given some independence in this sphere. But the *khozraschet* approach to the reproduction of working capital assumes complete freedom of economic maneuvering, including the introduction of wholesale trade in producer goods. This objective has been proclaimed, but will it be achieved in the near future? So far this seems unlikely. Some of the output not subject to centralized planning is manufactured on the basis of direct links between producers and consumers on a contractual basis while some is planned through the system of state orders. Many departments have "re-designated" virtually the entire output of subordinate plants as state orders. But as we all know, in economics a change of name has never changed anything.

I see a state order as something that defines the boundaries for the development of capacities in the areas of plant operation in which the state is interested. Neither more nor less. For example, Uralmash [Urals Machine Building Plant] builds drilling, mining, ore-enrichment and other types of equipment, and it should know what proportions it should maintain in the long-term development of its capacities. The departments for which that output is manufactured should know their quotas in each of those areas within Uralmash's output. That, as I see it, is what state orders are all about. Of course, they must be supported financially and guaranteed by the state. After all, a walking excavator costs tens of millions of rubles and no enterprise development fund can bear such costs. What is needed is budgetary or centralized financing for the customer. **The state order should function as both a definer of proportions and a guarantee of the material, technical and fiscal support of those proportions.** Its actual implementation—for instance, the Uralmash's contract with the Neryungri mine or KATEK [Kansk-Achinsk Fuel-Energy Complex]—should in no way be regulated from above.

Thus, so far we see attempts to implement a very restricted *khozraschet* model which is far from ideal. But the sluggish ministries and departments are in no hurry to follow even this circumscribed model. The main reason is not the one universally headlined in the press: "Bureaucrats, resistance to change..." It's all there, but **the reason for their sluggishness lies in the fact that ministries continue to be responsible for the output of subordinate plants.** As long as the ministries are not relieved of that responsibility it is useless to ask them to give up petty supervision of plants. He who bears responsibility must have administrative clout, material capabilities, and financial reserves. **We are inconsistent: We say that the ministry is the general staff of the industry while continuing to stick it with the functions of a line**

supervisor. The establishment of additional, supraministerial and interministerial agencies such as Agroprom, the Machine Building Bureau and others, does not help matters but, on the contrary, obfuscates them.

2. Even if the new pricing system is developed theoretically by 1990, its introduction and adaptation will require, I think, not a year but more likely the entire 13th 5-year plan. It will be necessary to formulate the new plan without prices and to implement it in terms of traditional prices (the old ones will have been abandoned while the new ones will have not yet formed or been tested in practice). How can this difficulty be overcome? **I think the old index method should be used.** Economic work at the factory level consists precisely of physically measuring the factors on which the manufacture of a new product is based. These include the required amounts of specific materials in meters or kilograms; labor input in hours; equipment operation in hours; results in meters or pieces of finished products. It is necessary to consider how this can be used at other managerial levels employing economic balance sheets in physical terms. But there is also another danger: The ministries, together with the Ministry of Finance, are currently setting unjustified norms, allegedly because the 5-year plan has already been drawn up and there is no getting away from its basis, therefore the 13th 5-year plan will also be drawn up in old prices. But in that case we will subvert all our efforts to introduce *khozraschet* and, accordingly, the new management system even in its circumscribed form.

3. As for economic norms, this is at present an extremely "cunning" and complex problem. There are different approaches to it at our institute and, consequently, among the professors of the Special Department. My position is as follows. **A stable norm is a stable share of the work collective, nothing more; it is a form of material incentives aimed at accelerating development.** It need not be approached from the base year, but rather from the anticipated effect. If you reach the level of the maximum anticipated effect, all the better for you.

The idea is understandable, but the people involved in its practical implementation are suspicious. For many years we have been hearing talk of the need to stabilize norms, but plant managers see and know that in actual fact there has been no stabilization, that all they attain will be "sheared off," and the faster the "wool" grows the sooner you'll be invited to the "shearer." Hence, the main thing is to not disclose your reserves before your neighbor. So far this feeling has not changed. Especially since the Finance Ministry (and under its pressure all ministries) actively feeds that distrust. The ideal model assumes that norms should be the same for all plants of a given sector. Sectoral, natural, climate or national differences are all possible. **But it is wrong to differentiate norms according to the basis, as is currently done, otherwise those who worked poorly before will be in a better condition. They cannot be based on growth rates, which**

inevitably decline, because technologies are not renewed every year and machines grow older. Dynamically developing plants will again suffer under constant norms.

There should be no payments to ministries at all. They should be financed in a centralized manner from the national budget, if the government finds it necessary to establish centralized funds in specific ministries. Normative payments by plants continue to be a form of funneling moneys from profitable to unprofitable ones. Nor should the employees of ministries get their incentives from khozraschet funds. We have done this before and no good has come of it.

Only the respective proportions of the state budget and the plant should be defined. Then the government can distribute its share according to the tasks facing different sectors or regions. Of course, priority should be given to new development regions and key industries.

4. In the area of information support, everything will depend on how much an enterprise feels constrained to conceal information. In the US, for example, incomes are concealed to avoid taxation. Information is divided into distorted (income—and hence the existence of a special fiscal police), authentic, and classified (commercial, technical, etc.). We have no need for a fiscal police because, with a state bank and uniform accountability, there is no way to conceal income. However, information which is not based on khozraschet results has been, is, and will continue to be unreliable.

5. Up till now we have built our management system from the top downward. Hence the duplication of the functions of lower levels at higher levels. At the 27th CPSU Congress and subsequent Central Committee plenums a reverse process has been effect, from the work collective upward. Only that with which the management of work collectives are unable to cope should be relegated to higher levels. This must be continued! No simple manpower reductions in those selfsame ministries will help. It is necessary to do away with duplicated functions, so that people would have nothing to do. Then they will leave of their own accord.

6. What concerns me? The mass media frequently mislead the public when they declare that plant managers have been given all rights. This makes them the target of criticism. In actual fact they must frequently bear responsibility for things for which they are not to blame.

Plants and their managers are essentially unprepared for their new role, for implementing the khozraschet model even in the framework of the Law. For dozens of years they have been operating in other conditions, according to other rules. What is a good chief economist or chief bookkeeper today? A person who knows how to select the best variant of a solution? No, it is a person who knows how to circumvent prohibitions and force the solution the chief wants. From the point of view of the ideal khozraschet model these skills are worthless. And

what should he have now? Economic intuition, a sixth sense, the knack of spotting how to make a profit and reduce costs, a readiness to take risks. Very few possess these qualities. At one of the EKO directors clubs I heard one director's comment: "I and my colleagues—Heroes of Socialist Labor are the fortunate few. We became Heroes, others landed in jail." This is only too true.

There are economic difficulties, and they are very serious. But it is silly to fear what exists objectively. I am worried by the social atmosphere surrounding perestroika. We need, firstly, a realization that it cannot be put off till tomorrow, and secondly, it cannot be carried out without casualties today. We have been living beyond our means, on credit since the mid 1970s. The time has come to repay our debts. This is difficult and it involves a decline in our well-being.

There is too much sensationalism in our presentation of perestroika. In our criticism of the past we have been concentrating on personalities instead of processes. All right, we've blamed the leaders, but we ate today's piece of the pie yesterday all together. It is important to realize this in view of the mounting distrust towards perestroika. It is still possible to significantly correct this by providing objective information.

COPYRIGHT: Izdatelstvo "Nauka," "Ekonomika i organizatsiya promyshlennogo proizvodstva," 1988

Advantages of Forming Industrial Concerns Described

18200025a Moscow IZVESTIYA in Russian 30 Aug 88
p 2

[Article by A. Shamov, candidate of economic sciences, assistant professor, Department of Administration, Academy of the National Economy, attached to USSR Council of Ministers, under rubric "Reform of the Economy Is the Foundation of Perestroika": "Ministries or Concerns?"]

[Text] Because of the nature of my work, I deal with the administrators of associations and enterprises. As a rule, they are people with professional training, who have a good knowledge of the practical aspects of our economic life and who are able to orient themselves quickly in the labyrinths of our still-bureaucratic system of administration. In response to the question concerning what it is that is the greatest hindrance against their working well, they usually mention first of all not the low quality of the raw and other materials being received, not the failure to maintain deliveries, not the worn-out equipment, but the diktat of the superior party and state agencies. First of all, it is the diktat of their own ministries...

Yes, the ministries in their modern form serve as a serious roadblock on the path of perestroika. And at the All-Union Party Conference that was mentioned very loudly. It was noted that the new economic mechanism

being introduced sometimes spins its wheels because the people in the central departments are not properly executing the appropriate party and governmental decrees.

But it is obvious that the ministries' diktat have its own economic roots and corresponding economic decisions to overcome it.

Wherein, then, lies the economic nature, the economic necessity of branch ministries? It evolves from the fact that the enterprise is the basic link in the national economy. But whatever independence it possesses, it cannot, at its level, fulfill a number of important functions of development in the system of a single national-economic complex. In particular, the strategic tasks of scientific-technical progress, the choice of the most efficient alternatives for ties running along the technical, technological, and economic chains, and large-scale financial and credit operations.

In order to fulfill these functions it is necessary to unite the efforts of related enterprises. The purpose of this kind of unification can be, for example, the formation of a scientific complex within the confines of which one can carry out all stages of the "science-production" cycle, beginning with fundamental research and ending with the experimental model or experimental series. Or the enterprises can unite for the purpose of creating large-scale entities in the production or social infrastructure: formations in an overall power base, the construction of a housing project, etc. It is precisely for that purpose, within the confines of groups of enterprises that produce similar types of output, that is, the branches, that special agencies of administration—branch ministries—are created.

Primordially, then, the ministries exist for the enterprises. They must express the will of the enterprises. and must implement the interests that are common for them.

The development of the bureaucratic system of administration led to a situation in which everything proved to be the other way around: the enterprises exist so that the ministries can manipulate them at their discretion. It has been only during the period of perestroyka that it has been possible to turn the problem upside-down. As was noted at the June 1987 Plenum of the CPSU Central Committee, the task was posed to begin major reforms of the economic mechanism starting with the basic link, "having in mind first of all the creation for it of the most favorable environment, the reinforcing of its rights, and simultaneously the increasing of the responsibility, and on that basis the introducing of fundamental changes into the activities of all the superior links of economic administration." Thus, the restructuring of branch administration is supposed to proceed from the enterprise to the ministry.

However, for the time being, that task is being resolved poorly. The chief reason for this, in my opinion, lies in the fact that the economic problem of reforming the

ministries is being resolved basically by the administrative method: by eliminating certain ministries, consolidating others, reducing the size of the administrative staff...

And yet it is completely obvious that we must proceed along a different path.

In Leningrad 33 very large associations, enterprises, scientific-research, planning-and-designing institutes, and other organizations are establishing fundamentally new national-economic subdivisions—Soviet concerns—which, in the plans in official documents, have been called state interbranch production associations (GMPO). Fifteen enterprises and organizations form a cost-accountable concern for producing equipment for the fuel and power complex—Energomash—and 18 form a cost-accountable concern for developing and producing chemical materials—Tekhnokhim.

The uniting of enterprises and organizations into concerns makes it possible to close their technical, technological, and economic ties together for producing the final output. Along the chains in these ties, Energomash will deliver equipment systems to the fuel and power complex: boilers, turbines, generators. Tekhnokhim has been conceived as an engineering firm. It will be able to work out the problems of producing modern dyes, materials for electronics, and catalysts, beginning with the development of the idea and ending with the turning over of the plant under lock and key at any point in the country or abroad.

Within the confines of the concerns it is planned to fulfill those functions that are common to related groups of enterprises, which functions were already mentioned: the resolution of questions of scientific-technical progress that are common to the GMPO; the forecasting of the prospects for development; specialization and cooperative action by means of the creation of joint procurement, tool, and auxiliary production entities, a single data-retrieval and computer base...

The fulfillment of these functions has one fundamental peculiarity: all the enterprises and organizations that have voluntarily become part of the concerns are no longer directly subordinate to the corresponding branch ministries. The body that becomes the concern's highest agency of administration is the GMPO board, headed by its president.

And that board is an agency that is qualitatively different from the branch ministry.

First, it is organically included in the production system.

Second, the status of the board depends completely upon the successful functioning of the concern, since the board is financed from the concern's centralized fund that is formed by means of deductions from profits earned by its component enterprises and organizations. The board

has no self-interest in forcing on them decisions that can be detrimental to them, since this reflects directly on the implementation of the material interests both of the entire concern and the board itself. The board here is directly, immediately based on economic methods.

Third, the board will not be able to make any decisions that contradict the interests of the entire concern or its component enterprises and organizations, since the managers of those enterprises and organizations are its members.

The creation of concerns will mean that we have found not only a new form to overcome the diktat of individual ministries, but also a new method of eliminating the departmental disconnection among the enterprises. Deprived of the "vigilant eye" of the branch ministries, the enterprises and organizations that are part of the concerns will operate primarily not for an intermediate result, but for the final output, the quantity and quality of which will determine the implementation of their interests. The enterprises finally will operate not for the ministry, but for the consumer.

With the separation of the Energomash concern from the systems of USSR Ministry of the Electrical Equipment Industry and the USSR Ministry of Power and Transportation Machine Building, it is converted into a competitor for the other enterprises in those ministries, since, in various parts of the country, they produce the very same output that Energomash does. A similar situation prevails with Tekhnokhim. But inasmuch as the concern will have the advantages that were previously mentioned, it will be no simple matter to compete with them.

But there also can be, and must be, other no less important and far-reaching consequences. The concerns will be granted the broadest opportunities for realizing the interests of their component labor collectives. The concerns will be able independently to determine the procedure for paying for labor performed to produce the current work results, without taking into consideration the existing systems of salary and wage rates; to establish a guaranteed wage minimum for all categories of workers, without limiting wages by any maximum; to develop and approve, with the coordination of the labor collective, all types of statutes governing the payment of bonuses; and to establish direct ties with organizations in the CEMA member countries and with firms in the capitalist and developing countries.

It is obvious that the collectives of other enterprises which, on the basis of their technical, technological, and economic ties, constitute a single production or scientific-technical complex, will also prefer to be no longer directly subordinate to their ministries and to form interbranch associations that are similar to the Leningrad ones, or to find some other new organizational forms.

I certainly have no intention of simplifying the extremely complicated and contradictory problems of the fundamental restructuring of the system of branch administration that the Leningraders have chosen. Of course, the organizers of the concerns, even before they are created, will have to resolve extremely complicated questions, for example, questions involving the branch ministries' "renunciation" of their enterprises, and, obviously, it will also be necessary to resolve even more complicated questions. However, at the same time I am convinced that the path taken by the Leningraders, as of today, deserves the most careful attention.

The question arises: who, then, will engage in the material-technical supplying of the interbranch associations? Of course, those associations themselves! The work of these associations is inconceivable without their changeover to wholesale trade. And this, in its turn, will accelerate the process of changing over to wholesale trade in all links of the economy.

Another fact that testifies to the advantage of constructing the new system of administration, and that proceeds from the interests of the basic links in the national economy, is that, at the 9th Session of the USSR Supreme Soviet, 11th Convocation, it was precisely this principle that was recommended for the cooperative sector of the economy for administering that sector. In order to realize completely their tremendous potential, the cooperatives currently have the opportunity to unite on completely voluntary principles into unions and associations. The agencies for administering those unions and associations, if they are constructed on a strictly democratic basis, can guarantee a sharp forward breakthrough by the cooperative sector by effectively organizing there the introduction of the latest achievements of science and technology, by carrying out a financial and credit policy, by protecting the rights of the cooperations, and by implementing other functions of administration that are common to the groups of collectives.

For the time being, there has been a definition only of the overall principle of constructing a system of administering the cooperative system. The specific forms that it will take will be shown by practical life.

This approach will make it possible to form fundamentally new types of agencies for administering both the kolkhozes and the entire agroindustry. These agencies must be constructed on the very same principles as the boards of the Leningrad concerns.

Practice of Lease Contracts at Industrial Enterprises Discussed

Two Views of Lease System

*18200291 Moscow IZVESTIYA in Russian 11 Aug 88
p 2*

[Article by M. Krushinskiy: "Of Leasing, Risk and Social Protection: A Discussion Between Managers of Two Very Dissimilar Industrial Enterprises" under the "Economic Reform, the Foundation of Perestroika" rubric; first paragraph is source introduction]

[Text] A lot is being said now about lease contracts.

Having been approved at the 19th All-Union Party Conference and the July Central Committee Plenum, the lease contract system have quickly begun to win new supporters, including some in the industrial production sector. Yet, experience in this area remains limited and can not be mechanically applied to all different conditions in which different enterprises function. In this respect, the discussion that we offer to the readers' attention may prove useful.

My interlocutors are not only different people. In the wide ocean of economic activity their home ports are on the opposite shores. Mikhail Aleksandrovich Bocharov heads the Butovskiy Construction Materials Complex, a relatively small enterprise on the border between Moscow and Moscow Oblast. It has 420 employees, its annual output is about R5 million and the value of its capital equipment is R3.8 million. Last March, it switched to lease contract. Behind Alfred Nikolaevich Rogozhan stands an industrial giant, the Orsko-Khali-lovskiy Metallurgical Complex in Novotroitsk, Orenburg Oblast. It has 25,000 employees, R706.5 million annual output and R1.33 billion worth of capital equipment. It is this monster that the collective proposes to lease from the state.

[A. Rogozhan] "We have been following Butovskiy's experience for a long time, ever since the first article on them appeared in IZVESTIYA last February. We have been trying to fit their experience to our situation in many ways, but only now have we been able to arrive at a set concept. Now, I have come to take a first-hand look at them."

[M. Bocharov] "Why you, the chief sociologist of the complex? Why not an economist, for instance?"

[A. Rogozhan] "Because leasing is primarily a 'human' question, economics come second. In my opinion, the purpose of leasing is to restore to workers a sense of owning their enterprises and to fill their lives with a sense of dignity. How much harm the attitude toward people as to mere 'labor resources' has caused us! On the other hand, I am not a total ignoramus in economics either. I hold a candidate of economic sciences degree."

[M. Bocharov] "Pardon me. Well, I agree with you: all problems should not be reduced to mere salary increases. Incidentally, this is the advantage of the lease contract over all forms of cooperation, which often ignore the social aspects of industrial activity."

[Correspondent] "What do you mean?"

[M. Bocharov] "I mean the very thing about which you have been writing so happily and, in my opinion, so one-sidedly. What good is it that at cooperatives people kill themselves putting in 12-hour days? And what about instances when the aged, the handicapped and all those who are unable to work at such a rate are dismissed? Financial stimulus is great, but at times chasing the extra

ruble becomes a goal in itself. Here, greed looms large: you get together with partners, make a quick profit and, once profits have thinned out a little, skip the scene. Please understand me correctly, I am not against cooperation, but we should not pass over its seedier side either. As to lease contract, it provides the usual level of social protection that is characteristic of our social system."

[A. Rogozhan] "Are you sure about it?"

[M. Bocharov] "About what?"

[A. Rogozhan] "About social protection. No matter what you say, 100 percent protection is afforded to employees only at enterprises of the old type, ones that have not been touched by economic innovation. There, the salary, albeit a modest one, is nonetheless guaranteed. But once you start funding it with income earned at the marketplace, there is always a risk that one day your people may go without a salary."

[M. Bocharov] "True, this is the nature of business risk. At our complex, for instance, we have set up a special risk fund."

[A. Rogozhan] "It is easier for you. I mean, it is harder for you because you are the trailblazers of leasing, but it is also easier. There is fewer of you. But can we risk the well-being of 25,000 families—of an entire city, in effect? Especially now, when the industry is facing increases in raw materials prices and our profitability will decline?"

[Correspondent] "I do not understand you. Are you switching to lease contract, or what?"

[A. Rogozhan] "We are planning to switch, but on the condition that salaries are funded in the traditional way."

[Correspondent] "Do you mean as a share of total output? What will be different in that case?"

[A. Rogozhan] "Everything else. First of all, contributions to the state budget and to the ministry will be fixed, not a floating percentage of profits. Secondly, the target measure will not be profits, but economic earnings, which we will decide how to spend without orders from above. The reason we need security is to make sure that the salary fund does not fall below its current level. If there are surpluses, we could distribute them as year-end bonuses, for instance."

[M. Bocharov] "As far as I know, this is the model the Sumy Industrial Association imeni Frunze intends to adopt. What we have here is a mixture: the first model of self-financing supplies the salary fund, the second economic earnings and the third, i.e., the lease contract system, fixed-rate contributions to the state and independent distribution of earnings."

[Correspondent] "In other words, it is not 'pure' leasing. What is your opinion of it?"

[M. Bocharov] "I am of two minds about it. As a director of the Butovskiy Complex, I am an ardent supporter of 'pure' leasing and unmitigated business risk. However, Alfred Nikolaevich also has a point: a huge enterprise such as his needs social protection. Compared to them, we are like a small row-boat next to a cruiser. We are free to maneuver: if need be, we could find a way out using special-purpose funds, credits or something else. We have relatively few employees, and each one of them knows what he is getting himself into. They, on the other hand, need stability under the reliable protection of the state."

[A. Rogozhan] "And one other thing: we can not be dependent on exogenous economic conditions. True, it could be achieved within the framework of 'pure' leasing, if the fixed contribution figure were allowed to fluctuate depending on the price of raw materials or annual output of the complex."

[Correspondent] "Your extra-large size gives rise to yet another problem. In Butov, once the lease has switched to the lease system, every employee comes into possession of, formally speaking, 1/400 of all buildings, structures and equipment. People feel that they are the true owners; they will not let a single nail go to waste. In your case, however, there is no substantive difference whether a given piece of equipment belongs to the collective or to the state in general. Ownership remains depersonalized."

[A. Rogozhan] "This problem could be solved with the help of a graduated lease system. We have 60 shops, each with roughly the same number of employees as the Butovskiy Complex. The shop's collective becomes the second lease holder, and its employees, psychologically, become the owners of the capital equipment."

[Correspondent] "Yet, this entails more independence for each shop; otherwise, leasing becomes an empty formality."

[M. Bocharov] "Naturally. But not everything could be foreseen from the start, right? We too are discovering many things by trial and error."

[Correspondent] "So when are you, at Novotroitsk, switching to the new way? With whom and for how long the lease contract will be signed?"

[A. Rogozhan] "These are the most sensitive questions! Neither the ministry nor the oblast knows anything about our plans yet. But we are counting on their support. It will be beneficial to the state, the region and the sector. Without any additional investment, we will be able not only to increase production but to do a great

deal in the area of social services—both for ourselves and for the city. For instance, we could set up a housing construction organization or help with the implementation of the food program."

[M. Bocharov] "I do not want to criticize the USSR Ministry of Ferrous Metals but, objectively speaking, it has no desire to let us out of its grip. You are strong; it is hard to resist the temptation of supporting weaker enterprises at your expense. And, generally speaking, can an economic management entity be considered the owner of capital equipment? Can it dispose of it as it wishes? I am not so sure. I think that the contract should be signed directly with the Soviet Power, which should be, since you are responsible to central management, the Supreme Soviet or the USSR Council of Ministers."

[Correspondent] "Yet, the Butovskiy Complex signed its own contract with the managerial board, not with the ispolkom."

[M. Bocharov] "This is true, but 6 months ago the situation was different. The idea is to reduce interference by economic management entities to a minimum. The parochial approach here is unacceptable. And one more thing: I would advise my Novotroitsk colleagues to secure the backing of local party and soviet officials, as well as the State Bank. And they should discuss every little detail among themselves beforehand."

[A. Rogozhan] "In this respect, much has already been done and even tried out. We have long had a 'school of socioeconomic thinking', which is a good way to analyze various forms of self-financing collectively. The enterprise has 15 different internal cooperatives: they manufacture products using wastes of the main production. Here, however, psychological difficulties arise. We can not permit cooperative members to earn more than steel furnace operators. We think that this would not be equitable."

[M. Bocharov] "This, I think, is a tribute to stereotypes. Everyone should get paid according to his labor contribution: this is the crux of the matter."

[A. Rogozhan] "I understand what you mean and I am ready to admit that from the purely economic point of view you are probably right. But there are deeper matters. The stereotypes you are talking about have a healthy core and we think that it should be preserved. We want to be owners of a metal-producing enterprise. Do you know what I mean? Owners of blast furnaces and open-hearth furnaces."

I will refrain from trying to dot all the i's or contest any of the ideas expressed by the interlocutors. The main conclusion of the discussion is, in my opinion, that the leasing contract system can be adopted by any enterprise, large or small, highly or not so highly profitable, one that produces means of production or consumer goods. Just like cooperation, and the second model of

self-financing described by the Law on State Enterprises, it will have to be tested by real life and patient, thorough analysis. Let mixed, hybrid forms of it arise: in every given case, the innovation has to be measured against actual conditions, and experience is the sole criterium for determining economic truth. The only thing that has no place here is a superficial, I'll-tag-along approach.

Moscow Oblast Experience

18200291 Moscow *EKONOMICHESKAYA GAZETA* in Russian No 32, Aug 88 p 5

[Article by V. Novikov, CPSU Moscow Oblast Party Committee's Secretary, and T.Rysina, candidate of economic sciences, senior research scientist, USSR Gosplan's Economics Scientific Research Institute: "How to Stem Losses: Leasing of State Enterprises, an Efficient Form of Economic Management" under the "Implementation of the 19th All-Union Party Conference's Decisions" rubric]

[Text] A lot has been written and said about lease contract, a form that is being widely used in agriculture. Its advantages are clear. It is easy to see why this form of economic activity has been termed the key to solving the food problem. As to using lease contracts at state enterprises in other sectors of the economy, those possibilities are still at a testing stage. Only the first steps have been taken in this area.

The originality and daring of this form stem from the undeniably exciting and interesting time of transition in which we live. Life itself has suggested the idea of applying leasing to state enterprises. As we are developing cooperative activity, allowing the individual to come to market, it would be unjust to bar state enterprises from implementing internal changes. Leasing is the natural next stage of developing market-based economic relations in industry and the logical extension of full economic accountability and self-financing.

Another aspect of the problem should be also mentioned. While not downgrading the economic and social importance of cooperation under present conditions, we must nonetheless remember that the main potential for increasing production and saturating the market with consumer goods lies in raising returns on state property. The USSR Law on State Enterprises (Complexes) has opened this opportunity.

Why have economic managers in Moscow Oblast become so interested in lease contracts? The conclusion that leasing was inevitable was suggested by a sober assessment of the economic situation, since loss-making and low-profit enterprises make up approximately 10 percent of the total number of enterprises in the oblast. The Moscow Oblast party committee and ispolkom have persistently sought ways to revitalize the region's economy and accelerate its economic and social development. Lease contracts are important among those measures. Science, represented by the USSR Gosplan's

Economics Scientific Research Institute and, later, the USSR Ministry of Finance's Finance Scientific Research Institute, have emerged as their ally in studying this path. In a rather short time, in cooperation with the scientific organizations, scientific and methodological materials on switching to lease contracts for state enterprises have been developed.

At the same time, party organizations' efforts were focused on preparatory and organizational work in the oblast, and on explaining new form of economic relations based on real accounting. Ten sector-based working groups were set up to facilitate the transition to the lease system for enterprises of the local industry, the agricultural industry complex, the construction materials industry, consumer services, the restaurant and retail trade industry, transportation, housing and municipal services and cultural, travel and tourist organizations. Another scientific and methodological support group worked on methodological recommendations. The project was coordinated by the CPSU Moscow Committee's economic department. As a result, "General Methodological Recommendations on Leasing State Enterprises by Their Working Collectives" were developed in a short time period and, in May 1988, approved by the Commission on Improving Management, Planning and the Economic Structure.

Leasing state enterprises entails a radically new relationship between the primary economic entity and the managerial organization that supervises it, be it an economic board, a trust or a state agency or ministry. Leasing is governed by a contract signed usually for 10-15 years. The contract formulates the system of interaction between contracting parties and spells out their responsibilities toward each other, rights and accountability. The contract stipulates that the supervisory entity passes fixed productive and nonproductive capital, as well as on-going production funds, to the enterprises' collective for temporary ownership and use. The collective pledges to use the means of production which it receives in temporary ownership with maximum efficiency, in the best interest of the economy and the collective.

New economic relations bring the producer of material goods closer to the means of production and help overcome a certain alienation from them on the part of the worker that was characteristic of the old economic system.

How has economic activity been developing based on leasing of state enterprises? A distinctive feature of leased enterprises is their independence and freedom in all aspects of economic activity: planning, procuring material and technical supplies, setting long-term technological policy, solving social development problems of the working collective and selecting forms and methods of material inducement. Economic activity is carried out based on a modified second model of self-financing.

The rent is fixed when the contract is negotiated. It is taken out of the enterprise's earnings (profit) and is set as a ruble sum remitted to the supervisory entity on an annual or quarterly basis. The sum depends on the financial state of the enterprise, its economic sector and the established order of funding budget items. For instance, if the budget is funded centrally, the rent includes funds transferred to the superior entity to be later included in the budget. After all deductions, the leased enterprise's remaining earnings form its economic income which is not taken away. This point needs to be stressed, since under the old economic system this so-called free remainder was routinely remitted to the ministry or the agency.

The freedom of deciding on nearly all business questions allows the enterprise to tap its industrial resources to the fullest possible extent and to make and implement technological and organizational decisions favoring long-term planning and financial stability.

The leased enterprise can spend its economic income independently, without guidance from above. The enterprise sets up its own industrial investment and research and development fund, social development fund, risk fund (financial reserve) and general salary fund. The only important target is to make sure that labor productivity grows faster than average labor costs. In effect, it is the only internal economic requirement, which acts as a reliable means of balancing consumer money income and the availability of goods.

Leasing enhances, not only formally but in reality, the role of the working collective's soviet. It has a bigger say both in how economic income is spent and how each employee's share of the general salary fund is determined. The collective itself chooses the forms and methods of material stimulation. Using centrally developed rates and salary guidelines for various positions, the collective has the right to adjust them taking into account its own economic income as well as the degree of difficulty and responsibility of each employee's functions. At leased enterprises, parasitism and wage leveling are quickly eliminated. Everyone understands that there is a direct link between his work and pay and tries to work intensively, creatively and unselfishly.

The development of lease-based economic forms also creates an objective foundation for radically new business structures, including also their geographic aspects. The collective of a leased enterprise does not need supervision from above and is free to join territorial and industry associations, organizations or consortiums to produce a given good or service.

The relatively small experience of Moscow Oblast enterprises and organizations with leasing shows that workers become more responsive to material stimulus. Collectives approach the task of distributing the salary fund in an honest and responsible way. For instance, the salary fund at the Lyubertsy dental clinic was apportioned

taking into account everyone's labor participation coefficient. The additions to employees' base monthly salaries ranged from R10 to R70. In the very first month of the new system's implementation, the plan for services was overfulfilled by 35 percent, and output per employee rose on average by one third. After one month of working under lease contract, Khimki's "Optika" store increased its sales by 10.3 percent and paid services by 29.1 percent; the staff was cut by 35 percent and salaries rose.

Here is another example. Before it switched to lease contract, the food store of the Serpukhovskiy rayon consumer union in the village of Zebrovo lost on average R2,000 per month. It had three employees. After one sales clerk signed a lease contract with the management of the rayon consumer organization, the store's sales doubled and losses were stemmed. The sales clerk now uses his private car to serve several other villages, which have no retail outlets of their own. Is this not an example of businesslike attitude? And there are many more such examples.

By stressing the profit motive, leasing of state enterprises becomes a powerful mechanism of raising the efficiency of social production. It is in leasing that the socialist principle "from each according to ability, to each according to labor" is most fully realized.

For instance, the transfer of the Main Moscow Oblast Construction Materials Production Administration's Khlyupinskiy "Stroyolimer" plant to lease contract has enabled the working collective to reduce production costs by R15,000 and improve other economic indicators in just a few months. In the first 7 months of this year, compared to the same period a year ago, output and productivity rose by over 15 percent. Consumer goods production increased 72 percent. Once it switched to the lease contract system, the collective decided to raise its output targets for the second half of the year by R1.5 million, or 6.5 percent. This would bring an additional R500,000 of economic income and help address a number of pressing social questions.

In Moscow Oblast, over 200 working collectives have signed lease contracts, including 15 plants and factories, 29 stores, 30 cafes, restaurants and bars, 39 fast food establishments and snack bars, 4 restaurant and delicatessen complexes (which have 38 outlets), 4 tailor shops, 8 stonemason shops, 6 flower farms belonging to the "Moscow Oblast Flowers" firm, 3 public bath and laundry complexes, 3 hotels, 1 dental clinic, 2 vacation resorts and 3 amusement parks.

Early results are encouraging, but serious obstacles in the path on the new work form remain. For instance, it is difficult to get the managers of the oblast's economic organizations to support state enterprise leasing. Many of them have not yet understood the importance of leasing in raising food and consumer goods production as well as in improving services. Party organizations and working collectives often misunderstand the essence of

new economic relations. Many difficulties and natural as well as imaginary prejudices stand in the way of state enterprise leasing. It is understandable, since the path of innovation is always difficult.

In the course of implementation of the lease system, the fact that the legal framework of economic reform lags behind becomes more and more obvious. For example, the need to abolish numerous restrictions on workers' right to hold more than one job and on paying retirement-age employees is felt very acutely. We need new legislation on employment and special treatment of the working handicapped. We need propaganda and assistance in implementing leasing. One of the ways to solve this problem is to set up cooperatives that would act as a middle-man. Starting this year, a middle-man self-financed cooperative "Vektor" opened in Moscow Oblast. One of its functions is to assist working collectives in familiarizing themselves with the new economic system.

As the lease system is implemented, the task of restructuring the activity of party committees becomes easier. Having been freed from the burden of economic questions, they could focus more on political and educational work, supporting innovations and protecting them from conservative forces.

Formation, Operations of Socialist Concerns Described

*18200044 Tbilisi ZARYA VOSTOKA in Russian
11 Aug 88 p 2*

[Article by Tamaz Bakradze, candidate of economic sciences, docent, and chief of the sector for interdisciplinary studies of the Center for Improvement of Qualifications of Key Party, Soviet, and Economy Personnel of the Georgian CP Central Committee, and Marina Ishchenko, candidate of economic sciences, senior scientific associate in the Center]

[Text] The restructuring of management of the economy that has developed in our country presupposes along with the solution of other global problems the creation of new organizational structures that guarantee more intensive specialization and improved reliability of ties in industrial cooperation, as well as the direct involvement of science in production, and on that basis—a breakthrough toward the world standard of quality. Their creation, as noted in the material of the June (1987) Plenum of the CPSU Central Committee, must be related above all to overcoming narrow departmental and local barriers which have been holding back the processes of socialization of production operations and the development in the economy of diverse processes of integration, especially horizontal integration.

This issue was raised once again in all its acuteness in many of the speeches made by delegates to the 19th All-Union CPSU Conference. It is clear from them that

departmental hurdles are a "sore point" and impediment in the operations of an absolute majority of enterprises and associations. It is no accident that the resolutions of the party forum stated plainly: "...the conference supports with determination the course of transforming the functions and style of operation of ministries and other central departments, the elimination of unnecessary structural levels and the transfer of their rights to the local level, a substantial reduction of the size of the administration and an improvement in the qualifications of personnel employed in it." And the July (1988) Plenum of the CPSU Central Committee stressed that only practical deeds to implement the principles of policy worked out by the conference will make restructuring irreversible.

As is now being demonstrated by experience in the management of our economy, it is precisely where the interests of different departments overlap, that is, along the line of demarcation between branches and sectors, that the most serious national economic problems and dislocations occur, threatening the loss of immense resources and time.

What, then, is the way out?! It is seen (and this is the opinion of many scientists and specialists) in the creation of intersector associations after the pattern of socialist concerns. The objective of creating the latter is a concentration of energies, efficient coordination of the actions of enterprises and associations depending upon one another in manufacturing a particular product, but at present subordinate to different ministries. What is needed is a body that would be designed to increase the efficiency and improve the end results of the network of interrelated industrial, financial, and commercial enterprises and organizations. That is what the concern must become.

What would be the legal status and structure of such concerns? They are vested with full legal rights, but they consist of enterprises, production associations, scientific-production associations, and scientific organizations that retain their legal rights and operate independently on the principles of self-financing and full cost accounting (khozraschet), but which are carrying out a technical, economic, and social policy within the framework of the concern. The components of the concern might also be commercial organizations in the sense of manufacturers' outlets and other stores, but also its own bank, which would hold and put to temporary use the uncommitted resources of its enterprises. Membership in the concern and withdrawal from it would be exclusively voluntary, subject to consent of the respective work collectives.

Machinebuilders making power engineering equipment in Leningrad, for example, hit upon the idea of setting up such a concern. Taking several large enterprises, they have been creating this kind of intersector association. The heads of these enterprises are supporting the idea and believe, first, the enterprises making up the concern

and moving out from under the subordination of ministries will be counting only on their own energies, which forces them to react more rapidly to technical innovations and to strive to make their product competitive on the domestic and world market; second, for enterprises with a long product list the only possibility of insuring themselves against the adverse fluctuations of demand for their own products is to join forces with their principal trading partners and through a common effort to coordinate the future demand and potential for their own production. And finally, they are unanimous in the opinion that the members of the concern might also include consumer-service enterprises when there is a technical necessity for their participation in general production, provided they are profitable and there is a demand for the end product of the concern as a whole. Then its profitable sections not only support the lagging partners with their money resources, but they can also help to improve the profitability of their production operation.

This kind of concern would be governed by a directors' council consisting of the managers of the enterprises, associations, and organizations belonging to the concern, as well as elected representatives of their work collectives and public organizations. Management of current activity would be the responsibility of the concern's board, elected by the council.

The board would operate through committees or commissions. The latter would be made up of the personnel of the subdivisions within the concern. Important scientists and specialists versed in the problems to be solved would also be enlisted to take part in this operational activity. The form for economic-legal regulation of relations between the enterprises belonging to the concern and ministries might be, say, coordinating agreements which would be concluded between the concern's board and the respective departments. The concern's "backlog" of orders would be made up of state orders (to be issued only for products which have national economic importance, as has been stated in the USSR Law on the State Enterprise), direct orders concluded on the basis of long-term business relations, and also one-time production agreements and contracts.

The enterprises, associations, and organizations which are part of the concern will be granted the right to independently conclude direct contracts and agreements with capitalist firms, with organizations and enterprises of the socialist countries, and with enterprises of the developing states. The concern's board and its management will figure only as coordinators of relations in this area. Thus, the conditions will objectively be brought about in which the enterprises will not be working for the administration (as has been the case up to now in the structure of the existing ministries), but the administration will be working for and defending the interests of the enterprises.

And finally, the last thing—the remuneration of the service personnel and engineering and technical personnel of the concern's administration and the specialists enlisted. This will be charged exclusively to the net income of the concern on the basis of the deductions earmarked for it in firmly fixed proportions, which will obviously restrain the desire to increase the number of managerial personnel.

Organized in this way, the concern, which would function on principles of self-financing, full cost accounting, and self-management, will be directly subordinate to the center, but only principles consistent with cost accounting, coordination, and consultation, it is thought, should be the basis of that subordination. It is evident that the solution of these problems, along with the "contours" of the structure, composition, legal rights, and interrelations of the concern, must be reflected in a "regulation" on the socialist concern (or even a law).

In continuing our discussion of new organizational forms for management of the economy, we would like to acquaint the reader briefly with another highly interesting body of experience gained in developing alternative versions of the concern in ESSR Minlegprom—about which Yu. Kraft, the republic's minister of light industry, spoke briefly in his interview to readers of the newspaper SOVETSKAYA ESTONIYA.

The idea of creating what is referred to as the commercial-industrial concern in the republic dates back to 1985 when its ministry became a participant in the large-scale economic experiment in which the wholesale segment of the republic's Mintorg was attached to ESSR Minlegprom. At the time, many representatives of the trade ministry considered this transfer a mistake (and they still do). But reality has demonstrated the opposite. And only one figure has been given to confirm this: the volume of warehouse turnover in wholesale trade increased last year by almost 13 percent, which means that more goods are reaching the warehouse, they are also going out to customers more promptly, that is, they are not lying idle....

Within the framework of the master chart for management of the ESSR economy, provision is now being made to set up a republic state committee for industry, which would include Minlegprom, Minmestprom, and the timber and lumber, pulp and paper, and woodworking ministries. The goal of setting up such a committee is the efficient and coordinated management of the production of consumer goods in the republic and maximum satisfaction of the population's demand for them.

The commercial-industrial concern, a version of which has been developed in the republic, would on the one hand be an alternative to the Ministry of Light Industry, and on the other an optimum variant for management of the future state committee. The concern, which would be

part of the latter, would retain its economic, legal, and managerial independence. Moreover, its managerial structure would be 40 percent smaller than at present—that of the ministry.

It is a basic condition that the concern maintain its economy. After all, imagine how complicated it would be to manage such a cumbersome thing as the projected republic state committee?! The full independence of the commercial-industrial concern will help to solve a part of this problem effectively, since even now ESSR Minlegprom, as is well-known, is a unified complex with highly developed internal specialization and industrial cooperation. Interaction between the concern that is to be set up and the proposed state committee would mainly be structured on a consultative and coordinating basis.

Further. It is assumed that the concern, while it performs first of all the tasks of furnishing the products of light industry to the republic, will expand its foreign economic relations, will speed up scientific-technical progress, and will augment the republic's contribution to the all-union market, but now on a cost-accounting basis. A distinguishing feature of the future concern will be the creation of its own commercial bank, whose resources will be built up from deductions (in firmly fixed proportions) from the enterprises and associations making up the concern. The bank will extend credits for its enterprises at a lower rate of interest than that of the state.

What is more, the commercial bank is designed to issue shares of stock; not only enterprises in the same branch and sector, but also enterprises which are suppliers of raw materials and equipment from other branches and sectors, may be the holders of that stock. As stockholders, the latter will, of course, be motivated to see that the end results of the concern's activity are always high; otherwise, the shares of stock will begin to lose value. Any worker of an enterprise that is part of the concern and even of a supplier enterprise might also be a stockholder.

In other words, he essentially becomes a co-owner of a portion of the fixed capital of the enterprise that is part of the concern, in proportion to the value of the bonds he has acquired, with a fixed percentage of income from the enterprise's activity. These shares will have a fixed exchange value, i.e., it will be possible to buy them and sell them without losing anything.

Creation of this kind of commercial-industrial concern within the state committee is organically integrated into the conception of regional (republic) cost accounting being worked out by Estonia's economic scientists.

The creation of alternative models of republic cost accounting is exciting the minds of scientists of our own republic as well, of Belorussia, of Lithuania, and of other regions in the country. It is no accident that the 19th All-Union Party Conference approved the development of ideas and conceptions along these lines and reflected

them in its resolutions, which state: "Things have to be organized in such a way that the workers know quite well how much the republic or oblast is producing, what its contribution is to the country's economy, and how much it is receiving. Attention should be paid to the idea of the conversion of republics and regions to the principles of cost accounting. With a straightforward definition of their contribution to carrying out all-union programs..." And at the July (1988) Plenum of the CPSU Central Committee it was straightforwardly stated that proposals need to be prepared for delineating the powers of the USSR and the union republic and for transfer of a number of managerial functions to the republics. To define the optimum versions of the possible conversion of the republics and regions to the principles of cost accounting, of development of direct relations among them, along with clear specific statement of the contribution to performance of all-union programs.

...A legitimate question may occur to the reader: Out of the available developments, assuming they are creatively reworked and filled with specific content, what specifically can be applied in management of the branches of our republic's industry? We will turn, for example, to the process of the state production association now being created in the republic timber and lumber and wood-working industry. What does it essentially represent at the present moment? In our view, a purely mechanical unification of enterprises which at the present moment are part of GSSR Minlesprom. Put figuratively, this is changing "the sign on the door," accompanied by some reduction in the present administrative-managerial apparatus of the ministry, but the structure, functions, subordination, rights, and duties—in short, relations between enterprises and the administrative apparatus, remain for all practical purposes what they were. Is there a need for such transformations? Perhaps they are in fact necessary, but they are halfway measures and do not solve the problems of a radical improvement of the activity of ministries which is assumed by the radical reform. Within the framework of the old structures of the administration the enterprises will obviously still be devoid of true independence, and everything will be preserved as it was.

What is the way out, then?! It is seen only in the creation of new organizational structures for management or in an essential transformation of those that now exist.

It would seem that GSSR Minlesprom, together with other branches in the republic's industrial sector, might undertake to create a commercial-industrial concern (with certain adjustments, of course, to take local conditions into account). And all the prerequisites exist for this. It has its own stores (there are two of them in Tbilisi alone), whose turnover is at the disposition of Minlesprom; it has its own large production associations, which are technically advanced, have millions in income, and their products are in demand at the union level; there are

opportunities for broad development of foreign economic relations, border trade in particular, for expansion of its own trade within the branch, for broad utilization of all the advantages of marketing, which presupposes, as is well-known, the study, monitoring, and forecasting of demand and requirements, higher product competitiveness, extensive use of advertising, and so on.

Is there not an area here to be creatively and scientifically explored by scientists and specialists concerned with the problems of reorganizing the management structure of the republic's industry within the framework of the master plan for management of Georgia's economy?!

Thus, it is quite obvious that the paramount task of our republic's scientists is to make a real and practical study and to propose the creation of conditions for larger independence of regions, to accomplish forms of cooperation in which every republic would be motivated to improve the end results of its economic activity as the basis of its own prosperity, and of the augmentation of the general wealth and might of the Soviet state.

Bukharin's Role, Contributions Defended

18200030a Novosibirsk EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA in Russian No 8, Aug 88 pp 45-54 (signed to press 30 Jun 88)

[Article by V.P. Danilov, Doctor of Historical Science, Institute of History, USSR Academy of Sciences, Moscow, and S.A. Krasilnikov, Candidate of Historical Science, Institute of History, Philology and Philosophy, Siberian Branch, USSR Academy of Sciences, Novosibirsk, under the heading "100th Birthday of N. I. Bukharin" in the "Pages of History" section: "Opponent of 'The Great Turning Point'"]

[Text] N. I. Bukharin was one of the key figures in the ideological and political life of the postrevolutionary period. He was seen as one of Lenin's closest associates, an original thinker, "astute theoretician," and "favorite of the entire party." From 1917, when the 6th congress of the RSDWP(B) [Russian Social-Democratic Workers Party (Bolsheviks)] elected him to membership of the Central Committee, and until 1929, Bukharin was among the higher party leadership: candidate and full member of the Politburo, member of the Comintern Executive Committee (and its head from 1926 to 1929), editor-in-chief of PRAVDA. His complete removal from participation in the political leadership at the end of 1929 was one of the main results of Stalin's "Great Turning Point," insofar as he had been the strongest and most active opponent of bureaucratic command management and of all that is associated in our minds with Stalin's personality cult.

Bukharin's writings are numerous. They include books, pamphlets, articles, reports, speeches and addresses on questions of Communist Party and Soviet government policies, the theory and practice of world communism, political economy, sociology and philosophy, culture and art, psychology and education, history of science, and other areas of knowledge. In 1969, American historian Sidney Heitman published an annotated bibliography of Bukharin's works located in "major American and European libraries" (Bukharin, N. I. *A Bibliography with Annotation, Including the Locations of His Works in Major American and European Libraries*. Compiled and edited by Sidney Heitman, Stanford, 1969, 181 pp). It lists 937 references (including translations and new editions), 37 of which were published before 1917, 821 between 1917 and 1929, 72 between 1930 and 1937, 5 after 1937, and 2 are undated. A Soviet bibliography will doubtlessly include more publications, but in any case it will gratefully incorporate the results of the stupendous work carried out by Heitman at a time when not only Bukharin's works but his very name was banned in our country.

Studying Bukharin's world outlook as a whole, as well as his views and positions on the most diverse problems of theory and practice will take time and the efforts of many experts. But in the first place it will require the publication of his literary heritage. For half a century and more—almost 60 years, in fact—Bukharin's works were not just rejected, but vilified, banned, and destroyed. So the first thing now is to publish those works again, for only that will make them accessible to the reading public and draw them into the circulation of contemporary ideas. It is not accidental that the magazine KOMMUNIST and newspaper PRAVDA have already launched this important and noble undertaking.

As we now re-evaluate our country's historical experience we seek to extract and actualize that component of our "heritage" which is associated with the formulation of the strategies and tactics of social development at turning points. The interest in Bukharin is of a dual nature: Firstly, as a spokesman for positions at variance with Stalin's on the controversies of the late 1920s-early 1930s on the ways, means and tempo of socialist change, and secondly, as a specific type of party leader and Russian intellectual "forged" in the era of the October revolution. The latter is the key to an understanding of the former.

Nikolai Ivanovich Bukharin was born in Moscow on October 9 (September 27, Old Style) 1888 into the family of a teacher. He was brought up in the tradition of that progressive social milieu, but despite extraordinary capabilities he never received a formal education: involvement in the revolutionary movement (he had been a party member since 1906) and arrests cut short his studies at Moscow University. He was exiled to the Onega country, from where he escaped abroad to the life of a political emigre forced by the persecution of various authorities to move from one country to another. But

those were also the years when he got to know and work together with V. I. Lenin, when he studied at the best foreign libraries, and analyzed the practical activities of the labor movement. Despite Bukharin's weaknesses as a politician (excessive trustfulness and vacillation, due mainly to his youth), Lenin valued his qualities as a theoretician and a scholar. Bukharin, for his part, always regarded himself as a pupil of Lenin's. Once, before the revolution, after a heated argument, he wrote to Lenin, "I have the deepest regard for you, I consider you to be my revolutionary teacher, and I love you."

After the revolution Bukharin remained an "active economist" in Lenin's eyes, that is, an actively searching thinker in the field of Marxist political economy and its practical applications. It is by no means accidental that towards the end of 1917 Lenin, true to the principle of taking professional competence into account in the placement of party cadres, involved Bukharin in the organization of the All-Russia National Economic Council [VSNKh]. The dramatic pages of intraparty discord over Brest and left-wing communist demands for the institution of direct forms of transition to socialism in the economy almost placed Bukharin and those who shared his views outside the party fold. However, the start of the civil war and foreign intervention shifted the debate into another plane. What was needed was a concerted effort, and Bukharin found the strength and courage in himself to not only submit to the will of the majority but also work actively for its implementation.

In 1920 his "Economics of the Transitional Period" appeared; it evoked an extensive public response and varied assessments within the party leadership and in scientific circles. Its characterization as an apology of the policy of "war communism" was to a certain degree justified. However, the notion that Lenin rated it extremely negatively current in our literature is far from correct. Lenin's commentaries and overall review (recently republished in "Leninskiy sbornik," Vol. 40, Moscow, 1985) offer quite a different picture: His criticism was constructive and had the purpose of "purging" Bukharin's system of analysis of eclectic admixtures and the influence of non-Marxist concepts. In an effort to accentuate the valuable, "healthy" Marxist kernel, Lenin in his reading of the work not only argued with the author but also supported him. In particular, there was a complete identity of views in their understanding of the tremendous importance of the role and place of the factor of extraeconomical force and of the dialectics of the connection between economics and politics in the epoch of the dictatorship of the proletariat. Moreover, it was none other than Lenin who noted the impermissibility of fetishizing the factor of state interference in, and political supervision of, socio-economic processes without knowledge of objective reality. Yet Bukharin was suggesting that the socialist mode evolving in the framework of the transitional period would develop at the discretion of the proletarian state.

Later, after Lenin's death, Bukharin repeatedly returned to the political lessons he had learned from the leader

and teacher. No one in the 1920s wrote more, or more frequently, than Bukharin himself on the essence and significance of left-wing mistakes in evaluating the Brest peace treaty and the socialist potential of a "war-communist" economy. Bukharin's polemic with Stalin's group and the appearance of "Notes of an Economist," as well as his speech, "Lenin's Political Will," were in themselves testimony to the depth and sincerity of his mastery of Lenin's lessons. For in the long-term theoretical-political aspect the "Bukharin of 1928" was as it were arguing with himself, with the "Bukharin of 1920," insofar as the danger had grown that concepts regarding the role of the factor of extraeconomical force and methods of the era of "war communism" as a catalyst of social development would be transferred from the theoretical domain to political reality. Having gained a deep insight into Lenin's concept of the New Economic Policy (NEP), Bukharin also acquired a new, Leninist, understanding of the dialectic of the interrelationship between economics and politics. After recuperating from the "children's disease of 'leftishness'," Bukharin proved to be especially sensitive to different variants of the disease, while his knowledge of it as it were from within allowed him to carry out the extremely difficult task of debunking the ideology and theory of Trotskyism.

The defeat of Bukharin and his supporters in the struggle against the establishment of the bureaucratic, autocratic rule of Stalin was not an ideological or theoretical defeat. On the contrary, the entire subsequent experience of our society's development has proved the correctness of the basic initial positions and fundamental solutions of the "Bukharin alternative" and its overall correspondence to the Leninist view of the ways of building socialism in our country. There is nothing more spurious than Stalin's myth about the right-wing opportunism of Bukharin, A. I. Rykov, M. P. Tomskiy and their supporters, who were allegedly opposed to the country's industrialization and to socialist changes in agriculture, defended the interests of the kulaks, etc. In actual fact, Bukharin and his comrades took an active part in formulating the resolutions of the 14th Party Congress regarding the course of industrialization and its implementation in practice. The acceleration of reconstruction processes in general, and especially in agriculture, was envisioned in the decisions of the 15th Party Congress, which were based on Lenin's principles of the New Economic Policy. The decisions of the 14th and 15th Congresses expressed a concept of the transition to socialism the major contribution to which was made by Bukharin. In this connection it is worth noting, in particular, that on the eve of the 15th Congress it was he who justified the need to launch an offensive against the kulaks (see: N. I. Bukharin, "On the Results of the Joint Plenum of the CC and CCC AUCP(B)": Speech at a meeting of the aktiv of the Leningrad AUCP(B) organization 26 October 1927, PRAVDA, 4 Nov 27; "Current Tasks of the Party": Speech at 16th Moscow Gubernia Party Conference, 20 Nov 1927, Moscow-Leningrad, 1928, pp 28-33). It is not accidental

that at the conference this slogan was associated with "Bukharin's statement of the issue" (15th AUCP(B) Congress, Stenographic Report, Vol. II, Moscow, 1962, pp 1229-1231).

The differences with Bukharin and his supporters surfaced later, and they were not on issues of whether or not to accelerate the country's industrialization, whether or not to launch an assault on the kulaks, etc., but on how to do it all: by economic means, retaining and developing NEP principles, or mainly by fiat, by administrative-political means, not eschewing the use of brute force.

The clash between these two positions in late 1927-early 1928 stemmed from failures that began to occur in various areas of economic policy, in the managerial sphere, etc. In its efforts to overcome the grain procurement crisis the Stalin leadership resorted to extreme, noneconomic measures of asserting itself in the countryside. The "Shakhty Case" against a group of Donbas managers and engineers raised the issue of the nature of the participation of the intelligentsia in tackling the tasks of the reconstruction period, and even of the fate of whole strata and groups of intellectuals.

The April and June Party CC plenums of 1928 concentrated on those "sore" spots with the aim of formulating a program of measures to avert a crisis. The basic differences between Bukharin and Stalin in evaluating the causes of negative processes in the economy and the social sphere mentioned before, and in the ways of overcoming them, surfaced, and the discerning reader comparing reports on the results of the April (1928) plenum made by Stalin to the Moscow Party organization and by Bukharin to the Leningrad organization (PRAVDA, 18, 19 Apr 1928) could clearly see this. Stalin interpreted the grain procurement crisis as essentially a consequence of the mounting social activity of the kulaks on the basis of their general economic consolidation in the villages ("The procurement crisis heralded the first attack of rural capitalist elements against the Soviet government in the conditions of NEP"). The "Shakhty Case" was interpreted as an inevitable alliance of international capitalists and hostile groups among the technical intelligentsia in the form of economic counter-revolution ("The Shakhty Case is a manifestation of a serious challenge to the Soviet government on the part of international capitalists and their agents in our country").

Bukharin in his analysis of the same developments placed emphasis on mistakes and shortcomings in the work of government authorities ("We know that the main levers of economic influence are in our hands, and possession of those levers makes us invincible from the point of view of internal relations, provided we make no major blunders. The kulaks, for their part, are a dangerous force primarily insofar as they take advantage of our mistakes".) Sabotage escalates from a potential threat to

reality mainly as a consequence of mistakes and weakness on the part of the authorities ("The entire drive-belt system—masses-class-trade unions-Soviets-party—was disrupted").

Thus, Bukharin saw the lessons of the spring of 1928 as highlighting shortcomings in the sphere of administrative management of society ("within ourselves"). Stalin placed emphasis on entirely different factors, stating in his concluding remarks: "We have internal enemies. We have external enemies. We cannot forget this for one minute, comrades." Hence the choice: Either self-criticism while improving the work of the party and the government and pursuing the course of industrialization of the country and socialist transformation of agriculture on the basis of NEP, or blame all difficulties of economic development on the actions of enemies and, consequently, shift the center of gravity in implementing the party's policies to administrative and force methods.

In July and August 1928, during the debate at the 6th Comintern congress on the section of the program, "Principles of the Economic Policies of Proletarian Dictatorship," Bukharin accentuated the problem of the "universality" of NEP as opposed to the thesis about the need to apply direct forms of transition to socialist principles already tested during the period of "war communism." He saw economic policy—the "NEP method"—as a correct combination, on the basis of market forms, of the links between town and country, between large-scale socialist industry and the small businesses of simple commodity producers cooperated on a genuinely voluntary basis. This was reflected in an appropriate section of the Comintern program. We should also note that it stated that when drawing up economic plans it was necessary to reckon with objectively forming economic relations and that in the new conditions apparently capitalistic forms and methods of economic activity (value accounting, cash remuneration, etc.) act as levers of socialist transformations. The idea pervading the entire economic portion of the Comintern program on the need to implement a "correct" economic policy based on knowledge of the laws of development of economic and social processes and on the basis of the principles of NEP can be traced beyond any doubt to Bukharin.

Bukharin's efforts in advocating this kind of economic policy rested on a serious basis. Differences with the Central Committee during its July (1928) plenum on problems of rural development (immediately abandoning extraordinary measures, increasing grain procurement prices, etc.) indicated that a part of the party leadership opted for noneconomic methods of resolving complex economic problems.

Thus, the appearance in the 30 September 1928 issue of PRAVDA of an article by its editor, N. I. Bukharin, was a logical link in the debate between two ever-diverging alternative assessments of national development (concerning its rate, forms and methods). "Notes of an

Economist" must be viewed as it were in two dimensions: Firstly, in the context of the history of the latter 1920s, and secondly, from the point of view of our current insights into those problems. What belongs to "that time" and what has transcended temporal boundaries and draws our attention today? Obviously, this must be decided by every reader independently.

We should note, however, that today's reader must take into account the circumstances of the place and time when the article was written and the historical conditions in which it appeared. It was timed to coincide with the summing up of the results of one economic year (1927-28) and planning for the next one (1928-29). The economic year at the time did not coincide with the calendar year and began on October 1. In 1928 that date also marked the beginning of the first 5-year plan, which enhanced the value of the retrospective and prospective analysis of the nation's economic development undertaken by Bukharin.

"Notes of an Economist" are remarkable primarily because they revealed, investigated and publically exposed the principal evils of the Stalin leadership's bureaucratic-command system literally at the very time when it was being asserted and showed the origins and consequences of those evils and the ways of overcoming them. It was quite elementary (for the latter 1920s): The impermissibility of management by fiat in resolving economic problems. Emphasis was specifically placed on the need to coordinate, integrate and balance specific assignments when planning economic development in general, and especially in the area of capital construction in industry. The article revealed that the plan for the 1928-29 economic year already contained imbalances, most notably, plans for building factories "today" from bricks and structural steel to be manufactured "tomorrow."

"Notes of an Economist" were not directed against the high rate of economic growth; they were targeted against the inconsistencies of administrative decision-making, against disdain for objective conditions and possibilities ("bottlenecks," etc.), which inevitably slowed down the actual growth rates and in the final analysis made society's extreme efforts meaningless. A vicious campaign of castigation, and more than just castigation, a campaign against "remakers" and people who "gave up in the face of difficulties" (which was supposed to be a manifestation of "right-wing leanings"), put an end to any debates on these issues. Naturally enough, the issues soon re-emerged, but in a different aspect: not as issues of planning but as issues of overcoming consequences. The "imbalances" and "bottlenecks" were recalled in 1930-1931 when it was necessary to explain the reasons for the failure of plants to fulfill their production plans, the poor quality of output, the high rate of breakdowns, etc.

The article offered only a cursory, spotty analysis of a number of important methodological problems of economic science (the nature of crisis processes in conditions of the transitional period; the relationship between

plans [directives] and forecasts [foresight]; the relationship between plans and market regulation levers, etc.), but it was quite adequate to reveal the main, summarizing idea of the article. This can be formulated as follows: Communists must learn how to manage things in a civilized manner in the conditions of the reconstruction period. The role of the factor of party-government leadership is truly tremendous: "By disrupting basic economic proportions in the country, major mistakes by the economic management can thereby also cause retrenchments of class forces that would be extremely unpleasant for the proletariat." Conversely, in the interests of socialism, "it is necessary to achieve the most correct combinations of the basic elements of the economy as possible ('balance' them, arrange them most expediently while actively influencing the course of economic life and class struggle)."

The words of the concluding part of the article have a quite contemporary ring: "We must launch and mobilize the maximum of economic factors favoring socialism. This assumes a complex combination of personal, group, mass, public and government initiative."

Of course, many assessments contained in the article bear the imprint of time, whether it is a question of the positions taken by some economists at the time or of such events as, for example, the "Shakhty Case." The assessment of the latter, incidentally, indicates that in the latter 1920s even members of the supreme party leadership lacked access to trustworthy information about the repressive apparatus, which was already completely subordinated to Stalin.

A few words are in order about what the article does not contain. In the words of the author, "one must be a truly witty person" to see in it any departure from the decisions of the 15th congress (December 1927) or from the economic section of the Comintern program (summer 1928) or to find in the article any denigration of the course of socialist industrialization and rural cooperation. Bukharin's realistic assessments of "bottlenecks" in the economy were reflected in the resolutions of the November (1928) CC Plenum, "On Economic Guideline Figures for 1928/29." There was, consequently, no basis for discerning a line in "Notes of an Economist" at variance with the party line.

The article began to acquire other evaluations, closer to those with which historians dealt until quite recently, not at once but by the spring of 1929, after Stalin had declared in February that the article "Notes of an Economist" is an attempt to "correct" the CC line. It was then declared to be "completely wrong" and a "camouflaged attack against the CC." After the April (1929) CC Plenum Bukharin was removed from his position as PRAVDA editor and from the Comintern leadership. The heat of criticism in the economic literature grew that fall, when the results of the 1928/29 economic year were being summed up and Bukharin, no longer a member of the Politburo, became a convenient target of criticism with limited opportunities to

respond. Articles appeared by V. Bogushevskiy ("Two Assessments—Two Action Programs", *TORGOVO-PROMYSHLENNAYA GAZETA*, 1 Oct 1929), A. Mendelson ("The 1928-29 Economic Year", *PLANOVOYE KHOZYAYSTVO*, No 8, 1929), and I. Byalyy ("Balance, Crises, the Role of Objective and Subjective Factors", *PLANOVOYE KHOZYAYSTVO*, No 9, 1929). The key points of debate were two positions put forth by Bukharin: On the nature of crisis phenomena in the economy of the transitional period and the possibility of not only maintaining but surpassing the undertaken rate of industrialization. It was, in particular, groundlessly claimed that Bukharin had attempted to prove "the existence of a general economic crisis" in the USSR (actually, he stressed the arbitrary nature of the term "crisis" by placing it in quotes). The articles also proclaimed "the brilliant bankruptcy of the predictions and reactionary essence of the proposals from the right" and declared that "the rates of industrialization have not only been maintained but even surpassed."

Stalin, too, entered the fray. In his article, "The Year of the Great Turning Point," timed for the 12th anniversary of the October revolution, he wrote: "It is hardly surprising ... that the assumptions of the 5-year plan have been surpassed this year, while the optimal variant of the plan, which bourgeois scribblers considered to be 'an unattainable fantasy' and which horrifies our right-wing opportunists (Bukharin's group) has in fact become a minimal variant of the 5-year plan" (*Problems of Leninism*, Moscow, 1939, p. 267).

Actually, during the first three years of the plan the annual growth rates of the national income, industry as a whole, and its first subdivision in particular, were stable and high. They began to slow down and then decline in 1931-1932 as an inevitable price of the "leap," of the rejection of the strategy of maintaining an economic

optimum proclaimed by the 15th congress. The time factor, which objectively confirmed that Bukharin had been right when he criticized the harm of the policy of economic prescription and "superindustrialization" for the country, placed him, in the subjective aspect, in an extremely grave position. Whereas in 1929 economists were still "tracking" discrepancies between plan assignments and their fulfillment, especially where qualitative indicators (cost, real wages, money supply, etc.) were involved, subsequently those lone voices grew weaker and weaker. At almost the same time as Bukharin, in the "year of the Great Turning Point" or a little later, A. I. Rykov, G. M. Krzhizhanovskiy, V. G. Groman, V. A. Bazarov, N. D. Kondratyev and a number of other leading economists were barred from participating in the formulation of economic strategy. The retirement of these people meant a replacement of the type of managers who had accepted the "NEP method" with another type oriented on command mobilization methods of economic management.

Historians still lack sufficient data to answer the question: What made the departure from Lenin's idea of the New Economic Policy possible? Yet there is one variant of an answer. It stems from an analysis of the collective weakness of those who were to have upheld Lenin's strategy of economic and socio-political development. It is no accident that Bukharin's group found itself in isolation so easily and comparatively quickly, before it was able to organize any effective resistance to Stalin's ideas of mindlessly "spurring the country on." And yet we have "Notes of an Economist," a document which reaffirms Bukharin's right to be judged by us today as he was judged before 1929: Party theoretician, leading economist, a person endowed with the best traits of the Russian intelligentsia.

COPYRIGHT: Izdatelstvo "Nauka," "Ekonomika i organizatsiya promyshlennogo proizvodstva," 1988

PLANNING, PLAN IMPLEMENTATION

Bunich Promotes Need To Reform Planning Mechanism

18200227 Moscow OGONEK in Russian No 26,
25 Jun-2 Jul 88 pp 6-7, 29

[Article by Pavel Bunich, corresponding member of the USSR Academy of Sciences: "Compass of the Economy: To Where Does the Needle Point?"]

[Text] Reading journals and newspapers, I see how man is straightening up, how he gradually ascends to openness, decency, and dignity, and how the previously compressed spring of social activity and civilization escapes to freedom and discards the rust. However, is it possible to attain a full and mass psychological emancipation and to become an individual only on the basis of the most honest social and political revelations, without a foundation making each of us a master in the main sphere—in the economy? Is it realistic to uncover and raise one's creative potential, falling under the press pressing, which irritates the soul, and, at the same time, seeing that almost everything at work remains as before; standing, as previously, in lines and suffering from "SOS well-being" inadmissible for the representative of a great power. Some get into a panic and predict a crash and some nostalgically yearn for the past. At the same time, the chorus of another part of the means of mass information touched by the "achieved successes," which it is difficult to reconcile with the modest results, as well as of those who say that society is going uphill slowly, but in no way can it go more rapidly, does not fall silent.

Social and economic problems lie in the shortage. The disproportion between their critical and constructive components is still big. Not in the sense of an excess of critical openness. As compared with our disgraceful practice it is not sufficient. The specific nature of present publications is an exposure of cult socialism. The reevaluation of history is relevant to the present. Any negative is a reversed positive. Even "pure" criticism is creative. Revelations heal old wounds. People's heads no longer serve as a depository of the "Short Course."

An analysis of the past shows the defects of the social system formed for the first time, which have made possible the appearance of degenerative relations, unheard of abuses of power, and genocide. An independent newspaper article entailed a criminal article. An observant owner of a photographic camera [kamera] was moved straight to a prison cell [kamera]. "... The most skilled part of the old technical intelligentsia was infected with the disease of sabotage," I. V. Stalin asserted. Therefore, specialists in technological processes were pulverized by the processes of agricultural and industrial parties. The system suffering from diabetis did not tolerate forbidden fruits. Millions sat in prisons and were eliminated. Promises and statistics contradicted

the reality. They marched "with a song on life" ("on" is not a slip) and "never disappeared anywhere" (if those that no longer existed are not counted).

As is well known, policy is a concentrated expression of the economy. All-around centralization began in the economy approximately in 1928. The following principle was in effect: "... Large grain farms, which, at the same time, are state farms, need for their development neither the maximum profit, nor an average profit norm, but can limit themselves to a minimum of profit and sometimes also manage without any profit, which again creates favorable conditions for the development of a large grain economy" (I. V. Stalin). All socialist agricultural enterprises were directed toward a low profitability, because virtually all sovkhozes and kolkhozes, in contrast to small individual farms, were called large. The same ideology pertained to industry. Its negative practical results were not slow in manifesting themselves. Cost accounting was suppressed by a planned allocation. The principle of the common stock also dealt a blow to sovkhozes. "... If we compare the huge state investments in the business of sovkhozes with the present actual results of the work of sovkhozes, there is an enormous noncorrespondence to the disadvantage of sovkhozes." We again quote the leader. It would seem that the goal was attained and everything was according to theory. However, the situation was evaluated as negative. As the way out of the situation the chief author of the establishment of large farms proposed breaking them into smaller units. Cost accounting was not mentioned even as a slogan, although money was recognized throughout the period of socialism. Later the law of value was rehabilitated "in a transformed," that is, curtailed, "form."

The structures of the new economy are still en route—both theoretical and, especially, practical. An additional difficulty lies in the fact that the present stage requires not only overcoming previous errors, but also a significant advancement. The ideals of the new economic mechanism are much more complex and "subtler" than of that formed during Lenin's time. Revolution is not reproduction. Economic renaissance creates a new world and revives and augments historical values at the next coil of the spiral, like the era that gave rise to the term itself. Even the "restoration" process, the economic principle as such, lags now. The need for it is heard in the growing underground rumble and in the strong tremors bursting up. What, in reality, occurs on the "mainland"? Focal and small changes resembling the reforms carried out earlier, in 1965 and 1979, which, as is well known, did not become profound and did not give a qualitative shift. In order to defeat the old, it is necessary to eradicate it and to get to the foundations. The root of evil should be replaced with the root of good. The fight against superficial "niches" of the bureaucratic-command system can only do small and short-lived damage to it.

The initial "braking" position of the new economic mechanism lies in the fact that the presently implemented five-year plan has been worked out as applied to

old methods of management and, therefore, allegedly can be fulfilled only by them. Partial derivatives follow from this.

First. Deductions of enterprises into the budget are determined as a residue after what is planned for them from above for the needs of the five-year plan. If an enterprise is highly profitable, but higher echelons believe that it is time for it to stop its further flourishing, up to 90 percent of the profit can be withdrawn from such an enterprise in favor of society's income. Incentive funds alone, which are calculated by multiplying their small average industrial per-capita normative by the number of employed people, remain at the collective's disposal. The most modest funds for the development of production, science, and technology are also allocated. If an enterprise shows little profit, but the five-year plan envisages its accelerated growth, almost or even the entire profit is reserved for the collective. The budget is limited to a minimum of payments or to zero. If, finally, the enterprise does not cover its expenditures and is unprofitable, but according to the five-year plan it should live and continue to incur losses, in order that the collective may not refuse to work at such an enterprise and, God forbid, its earnings and other income may not suffer, the budget grants it a subsidy, which, as a tugboat, tows the social dependent in one column with creator enterprises.

This is called self-financing according to "individual normatives." An attempt is made to justify them both by the grimaces of current prices, which shower some with money and drive others to losses. However, the chief thing lies not in prices, but in the dictate of the five-year plan. "Individual normatives" are the antipode of self-financing and it is more correct to consider them a hidden (normative) redistribution of funds from good to bad enterprises. This is one of the basic reasons for the fact that the budget takes away almost three-fourths of the national income and gives out as much. This entire pumping places worse enterprises under better conditions, punishes advanced ones, and stimulates circulation from high to low efficiency, from top to bottom, not from bottom to top. When self-financing is an equalizing feeding, then an economic natural selection does not operate. In the USSR in recent years several fruitless scientific research institutes and one higher educational institution have been closed and some worthless enterprises have been linked with good ones. However, these disgraceful practices have been uncovered and overcome owing to the introduction of elementary order and, therefore, deserve to be demonstrated at mobile exhibits as relics.

Second derivative. The assignment of the five-year plan justifies the damaging procedure of an outright and uncompensated redistribution among enterprises of their depreciation funds. Once such a procedure is established in the five-year plan, it means that it should

petrify. And the fact that such a procedure is a scandalous disorder and a new gap in self-financing is a trifle as compared with the "advantages" of the guarantees of the five-year plan.

Third derivative. When incentives are silent, anti-incentives speak. Without strong cost accounting labor collectives, whose rights have expanded somewhat, direct their energy toward harmful goals. They try to understate plans. What is the use if they are stepped-up? "Surplus" money will be taken away anyway. And if they are understated, missing money will be added. The stick is broken, but there is no spice cake. One out of two remains: Either to repair the stick, or to give a spice cake, not nominal, but real, heavy. Only the second path leads ahead. However, it is also associated with a risk. They followed the first smoothed path: They revived the centralized pressing under the code name of "state order," saying: We do not mark time, but restructure ourselves. We do not evolve modestly, but run ahead of progress.

The present pseudostate order, as befits the state assignment, covers the entire area of production opportunities and even something in excess of it. If it is a matter of a genuine state order, it is called upon to stimulate itself—with subsidies and tax and other benefits. Now, however, the state order is sometimes profitable and sometimes not. However, since "surplus" money will flow away and missing money will flow in, people are indifferent to the state order. Even if people chase after it, they do so owing to advantages in supply, which, in brief, are also insufficient, as for previous state assignments. Here it is appropriate to say that the person ordering music not only pays money, but also provides musicians with musical instruments. State orders are now backed by drums and trumpets, but the orchestra does not have enough bow instruments. A symphony becomes a cacophony. According to the definition the state order seemingly guarantees sales. However, state orders, like state assignments, do not guarantee sales now.

These shortcomings are criticized separately, but their totality leads to damage exceeding the sum of the components. Promises to restrain the appetite of state orders are given from planning heights. In particular, it is suggested that the intraministerial turnover be excluded from them and that they be issued only for final products. However, state orders at the concluding production stage will predetermine intermediary processes, including intraministerial deliveries. As before, they will enslave the national economy. And who is to blame? The lack of cost-accounting incentives for production from below and normatives adjusted to the five-year plan.

Fourth derivative. As soon as the five-year plan allots all resources, the following remain for wholesale trade in the means of production: a bit from the plan overfulfillment, something from the stocks released in connection with the reduction in the demand of enterprises, where people approach self-financing more closely or naively believe

in it, and a little owing to the centralization of material resources belonging to a group of enterprises at territorial bases, as a result of which their supply has become more reliable and the claims overstated just in case have begun to "slim down..." However, if resources are given out by the center, naturally, the center also determines their output. But if deliveries are given "at the input" of enterprises and products, at the "output" from them, the rights of collectives are reduced to the movement of incomplete production or, as cyberneticists say, to rights inside the "black box."

Fifth derivative. The heavy hand of the five-year plan lays on the neck of foreign trade. Its scale is determined by the residual method—after meeting the needs of the domestic market. Although it would be more profitable to sell many goods on the foreign market and with the obtained currency to buy other goods and to better saturate the domestic market with them. Enterprises are urged to develop foreign trade, especially cooperation and joint activity. However, how to do this if collectives are tied and retied with state orders? Residues, of course, are sweet, but they will not satisfy you. In order not to shake the five-year plan, methods of converting currency proceeds into our rubles have also been adjusted to it. To stimulate effective export and import, it was established that contractual prices should directly affect the cost accounting of enterprises. If they sell better products at high prices, they also receive bigger proceeds in domestic currency and, if they sell inferior products, the proceeds drop. Perhaps even expenditures incurred in rubles will not be covered. However, for such comparisons the proceeds should also have a ruble expression. How to convert, for example, dollars into rubles? At what rate? At the official rate? It is even awkward to talk about this. So-called differentiated currency coefficients mechanically converting foreign prices into domestic prices have been introduced: If the foreign price is high and the domestic price is low, the coefficient works for a reduction and, if the foreign price is low and the domestic price is high, for an increase. There are thousands of such coefficients, ranging from 0.2 to 6.6. Furthermore, for many goods the coefficients are of an individual nature, departing from the group one. Foreign trade is equated with domestic trade. No improvements and deteriorations in it affect the situation of enterprises. In essence, everything remains as before, when foreign economic indicators were not converted. Why such a game? So that the preservation of the "status quo" in no way pushes enterprises to a revision of the five-year plan and to new contacts and contracts.

Sixth derivative. Bank credit also has sad prospects. It is impossible to increase its resources, because the budget has seized all "surplus" money. It is not necessary to expand bank investments—all basic projects are financed by the same budget and by the ministry, as well as through the adjustment of financial normatives to the plan. It is impossible to increase the interest—the profit assigned according to purposes has no funds for it.

Enterprises taxed from all sides, receiving dosed financial food, are almost cut off from commercial (firm) credit as well—it cannot be given or taken.

It is bad when independence is replaced with formality. It is not better when rights are given, but the conditions for their operation are absent. Enterprises were permitted to apply contractual prices to new equipment. However, the same state orders cut off the oxygen. As a rule, the payment for them is made at list prices and, as soon as orders filled the entire economy, contractual prices had nowhere to force their way. Some labor collectives did not agree with the distortions of the essence of state orders and turned to courts of arbitration. However, as far as I know, arbitrators refused to examine such claims.

Why? Perhaps because they live by their law? The obsolete present is in no hurry to become the past. The Ural Heavy Machine Building Plant imeni Sergo Ordzhonikidze saw to it that the Machine Building Bureau of the USSR Council of Ministers rectified the obvious absurdity. Other "winners" are not visible. Or they are very few.

Technical progress requires the release of labor resources. It is also necessary to dismiss idlers and breakers of discipline. Those that have tried to do this even once know that this is expensive. The irreplaceable expenditures of state enterprises and organizations sending machine operators, students, and professors to pick the harvest cannot be calculated. In order to normalize such abnormal interrelations, it has been determined that the city performs agricultural operations for pay. If someone knows cases of a mass transition to such a practice, let him advise us of them.

And how many changes, which have nothing new, are there? Or reservations reducing the new to naught? Two cost-accounting forms have been announced. Net output—proceeds from the sale of goods minus material expenditures—is the determining element in both cases. They are divided into wages (the wage fund together with the material incentive fund) and cost-accounting accumulations (forms of production and social development). For example, net output is 100. In the first cost-accounting form the wage fund is first deducted from it. This is done by means of a special normative equal, for example, to 60 percent. The accumulation fund remains—40 percent. Conversely, in the second form a normative of the accumulation fund is assigned initially. The wage fund remains—60 percent. The mechanism has been set forth in a somewhat simplified manner. However, the details do not change the conclusion that, basically, both cost-accounting forms give the same result. If the accumulation normative (reverse to the wage normative) were absent in the second form, then, in fact, it would be new and, perhaps, the only one, because the better is the enemy of the good.

The law states that enterprises themselves determine the number of workers and their occupational and skill composition. The volume of the wage fund resulting from the really gained income is the only thing that, in principle, should limit this number. At first glance the presently existing limitation coincides with what has been stated, but, in essence, is completely different. The number and composition of workers have to enter the wage fund, which is based on its past year's amount, the latter being based on the amount of the year before last, and so forth, until the first day of creation. Those that once were able to get a free table of organization and to fill it with posts with high salaries ensured a preferential existence for themselves for life. Another paradox lies in the fact that the planned wage fund operates as a percent normative in relation to normative net (commodity) output. The bigger this output in practice, the higher the wages. But if enterprises lower material expenditures, production volumes may not rise and wage funds may not be increased and there will be nothing with which to pay workers for efficiency. Like the pay, so the efficiency. Many centralized normatives regulating wage increases for individual workers and maximum amounts of bonuses for brigades and enterprise managers have been retained. As we see, the past determines even the future.

Foreign trade associations have been transferred to cost accounting. Instead of receiving room and board from the state, they live on sums earned on commission, which fully cover their estimates irrespective of the efficiency of work, and are paid... by the state. The saving of expenditures leads to the growth of profit, whose most meager share (3 to 5 percent) increases incentive funds. The fulfillment of the plan for currency proceeds is an indispensable condition for the formation of these funds in planned sums. If one can understate this indicator, the position of the advanced worker is ensured. Taking into consideration the possibility of lowering world prices for exported goods, it is advantageous for foreign trade associations to underestimate the plan for currency proceeds to a greater extent than for enterprises selling articles on the domestic market at planned prices.

It is impossible to increase basic expenditures from incentive funds—they are limited. Nothing is left from currency proceeds for an association. The entire balance of profit is transferred to the state. But the intentions and decisions were radical...

High payments in favor of ministries are given to enterprises having a big and stable profit. At times ministries appropriate up to 50 percent of it. Payments to the state budget are lowered for such enterprises respectively, being shifted to unprofitable and unreliable payers. Having seen this, central bodies made a correction: As a rule, the budget should not receive less than ministries. If this correction is fulfilled, advanced collectives will carry a double load. However, it must be fulfilled not always, but "as a rule." A good loophole for bypassing the new

decision and for satisfying departmental egoism. Precisely such formulations lead to the fact that the law is transformed into a pole, which can be turned in a convenient direction.

Slow progress and marking time... Steps backwards are also taken. At one time the following rule was in effect: Normatives of deductions into incentive funds from the above-plan profit should be higher than from the planned profit. It was introduced out of good motives in order to increase the above-plan profit. But what turned out? Collectives began to understate profit plans even more in order "to pump" an ever greater part of it over to the above-plan profit. The profit remained as before, but the incentive was increased. Such a disorder has now been revived. It is not difficult to guess to what it will lead. Here is another example. It was decided to eliminate the intermediary link between enterprises and ministries. But a further step should have been taken: Why do enterprises need ministries? Perhaps they should be transformed into sectorial departments of the Gosplan?

There are many examples. I will not restrain myself and will cite a recent one—from the foreign economic area. Foreign trade firms were established at a number of large enterprises, which received the right of a direct entry into the foreign market, and foreign trade associations of sectorial ministries, for servicing enterprises, which did not as yet have such a right. Is this good and logical? This is smooth only on paper. Ministry associations try to restore previous "ravines"—instead of providing various services to firms on a cost-accounting basis, they begin to command them. Laws are holy and executors are deft adversaries. Houses are seemingly new, but prejudices are old.

We say: Everything that is not prohibited is possible. And we say this superbly. However, everything is prohibited to this day. First of all, by the five-year plan. And not only by it, but by departmental ambitions. For example, commercial credit is not prohibited by the Law on the State Enterprise. This means?... This means nothing. Deputy chairman of the board of the USSR State Bank writes in EKONOMICHESKAYA GAZETA: "With due regard for the results of activity of enterprises under cost-accounting and self-financing conditions, as well as the results of the conducted experiment in the use of commercial credit (my stress—P. B.), the USSR State Bank proposes a more thorough (than who?—P. B.) examination of the problem of expanding (my stress—P. B.) commercial crediting..." So that we must still live to see the observance of freedoms from the Law on the State Enterprise. But, for the time being, enterprises continue to be independent in the sense that nothing depends on them. They remain under the subordination of ministries (is it possible to be "fully independent" and, at the same time, subordinate?). The giant is tied with an insignificantly large number of prohibitions, which do not become easier because of their insignificance. With one thick rope it is possible to tie more strongly than with dozens of thin ones, even if this rope

is cleverly made to fit the economic method of management. As is well known, at one time excessive taxes, not direct prohibitions, destroyed orchards.

However, if there is no full independence, there is no full responsibility. And if there is no responsibility, there is no interest in the efficiency of work, in the manifestation of initiative, in inventiveness, and in the search for ways to consumers' "hearts." There is no middle course. The system is either new, or old. It should be added to this that the effect of many reforms has been dragged out or postponed. Credit relations, price formation, markets of the means of production and securities, convertibility of the ruble, management training, and formation of a system of forecasting the job placement of released workers also pertain here.

Time and a preliminary accumulation of material prerequisites, indeed, are needed for their training. In brief, the radical reform lasts for quite a long time during the transitional period. After all, the old economic mechanism has been formed for no less than 60 years. With the exception of cracks in the foundation it is monolithic, earthquakeproof, and capable of resistance and has taken up all-round defensive positions. No matter how we hurry, the establishment of the new economic mechanism is a process. However, it is maximally short, of course. Now this process is being prolonged. First of all, owing to the fact that the real shifts in the state sector are smaller than their potential. Therefore, we have only entered the transitional period and right away, after crossing the threshold, we have decelerated our step.

Let us look at the results. They can be described according to the accepted scheme: advances and shortcomings. Streamlined formulations concerning the nonfulfillment of assignments for individual articles by individual enterprises, ministries, and republics can be presented. We can read such reports and see what is in the frame and what is outside it. However, there is time for everything. Time to create and solve rebuses. Time to uncover a dry economic residue.

In order to impart a new quality to the economy, as a minimum it is necessary to fulfill planned 5-year assignments, not formally, in terms of the production volume, but in terms of useful articles. There are some positive shifts. It is impossible not to see them. As is well known, before the beginning of restructuring a rise in production, in its efficiency, and in the population's standard of living stopped. Now the rates of growth of industrial production and of renewal of output have risen, the reduction in production costs has intensified, the drop in output-capital has slowed down, and the country has gotten out of the precrisis state and has stepped back from the precipice. However, decisive indicators, although they have risen as compared with past indicators, lag behind those envisaged by the plan. The plan for an increase in the national income has been fulfilled approximately 80 percent. This despite its feeding with

"gross output" and report padding. The material intensiveness of the national product has virtually remained at the previous level. Assignments for the development of machine building and the production of consumer goods and food products have not been fulfilled. It has been impossible to do without a movement backwards. The gap between workers' income and their commodity coverage has increased. Inflation continues to grow. The budget is tallied with a deficit. The weightlessness of the ruble is beginning to glimmer.

The Theses of the CPSU Central Committee for the 19th All-Union Party Conference note the following: "Learning lessons from the initial restructuring stage, it is necessary to accelerate the solution of problems, on which the full realization of the principles of the economic reform depends." The real possibility for an immediate realization of the program—the minimum in this area—lies in applying the advanced experience in the management of the enterprises of the Ministry of Chemical and Petroleum Machine Building to the entire state sector.

The sector's labor collectives pay to the budget and the ministry taxes amounting to approximately 50 kopecks per ruble of profit. A "surplus" of money, as compared with the five-year plan, is formed at the most profitable enterprises. I would like to mention that, if payments had been adjusted to the five-year plan, let us assume, 90 kopecks per ruble of profit would have been withdrawn from them. The "surplus" is assigned for an increase in incentive funds and for a return of previously taken credits and is deposited in a reserve for difficult times. This group of enterprises fulfills and overfulfills the five-year plan. The second group of enterprises represents those where tax payments and payments according to "individual normatives" coincide. This group predominates. The problems of the five-year plan also do not exist for it. Finally, enterprises, which, when paying taxes, are short of funds for the fulfillment of the five-year plan form the third group. To make up for the shortage, credits are granted them. It may seem that this requires additional funds from the state. Nothing of the kind. In other sectors these enterprises are given open and hidden subsidies, not credits. As the saying goes, they get "their own" anyway...

The main lesson of the Ministry of Chemical and Petroleum Machine Building is that it has found the way for a weighed and prudent combination of the five-year plan and restructuring and has tested tax-credit regulators "on itself". There have been no steps and jumps without support points and there has been no rashness. The sector's example is a lesson for others. What enterprises of one sectorial ministry can do is also accessible to enterprises of other ministries. Just as there are no two multiplication tables for different collectives, so there are no fundamentally different systems of managing them.

We are waiting for an answer, we are waiting for an answer, we are waiting for an answer... However, the water of life does not bubble as long as it is possible to earn money not with labor, but by coaxing out from the state low normatives of payments to the budget.

A fetish cannot be made of the five-year plan. Changes in the economic mechanism are now added to the usual reasons for refining it (incomplete predictability of scientific and technical progress, market, especially foreign market, conditions, fluctuations in weather conditions, uncovering the mistakes that have been made, and so forth). They are modest, but have an effect. Under the effect of the germ of self-financing agriculture has reduced the claims for equipment. The mountains of stocks are thawing out. The release of superfluous workers makes it possible to fill vacant work places. Cooperatives change ordinary life. So that it is hardly possible to do without corrections of the five-year plan.

Cost accounting in cooperatives is even more consistent than in the Ministry of Chemical and Petroleum Machine Building. As soon as the new principles of work in cooperatives were announced, they began to arise. People do not have to be urged to come to cooperatives. They go there. Cooperative workers do not need to be persuaded to work well. Cost accounting, the best Makarenko in the economy, does this. Individual labor activity is also expanding without agitation. If now it coincides with "i.t.d." [and so forth], soon ITD [individual labor activity] will become a significant structure of the economy. The basis is the same—cost accounting.

I had occasion to participate in many discussions of the drafts of the Law on the State Enterprise and the Law on Cooperatives. I can testify that the plan for cooperative activity evoked a much more interested and professional discussion even among managers of state enterprises. And this is understandable: Everything that is truly profound creates interest and captivates.

Whereas previously it was necessary to overcome the inequality of cooperatives, now it is a matter of overcoming the inequality of the state sector. When the Law on the State Enterprise is enriched with incentives activating the thought and hands of cooperative workers, then the state sector will get out of its lethargy, will get a second wind, and will occupy the place prescribed for it. And it will do this not under pressure from above, but according to its own interest, than which nothing is stronger. Is this permissible? The borrowing of managerial approaches of cooperatives by state enterprises? Not only permissible, but necessary. Because it is a matter of general economic and democratic elements and of clearing state property from the bureaucracy sticking to it. And this should be done as quickly as possible in order to galvanize the state sector, as well as to place it under equal conditions with cooperatives and to ensure their healthy competition and cooperation. A recent session of

the USSR Supreme Soviet stressed that "enriching each other, these laws (on cooperatives and on the state enterprise—P. B.) fill economic activity with a new content..."

The lease contract is especially effective. It demonstrates the face of the new economic mechanism and is called upon to become the basic form of its production relations, which overcomes the alienation of the man of labor from public property. Precisely a form, because, in essence, collectives of state enterprises cannot lease property, which belongs to them anyway. The lease contract will not only survive, but will eliminate old forms of management. The mechanism of the lease contract can be strengthened by the transfer of mutual relations of state enterprises with the budget to a license basis, when the labor collective, in addition to the rent for leased assets, pays a fixed sum to the budget. Rent is not taken for assets built with its own funds. These assets are "added on" to state property as joint property and shareholders receive dividends. A special tax is imposed on wage funds so that current interests of collectives do not prevail over long-term interests and more capital is injected into tax-exempt development funds. There is also a need for progressive taxes on individual personal income, when it grows sharply (but not as deadly as those introduced for cooperatives).

Such a mechanism is understandable. It is effective. It punishes for miscalculations and provides incentives for competent calculations. It requires skilled management, when a high purpose meets high importance. The system is suitable not only for small and medium-size, but also large, enterprises. In general outline the lease contract is applied by the Butovo Building Materials Plant and by approximately 100 enterprises in Moscow Oblast. Internal subdivisions of enterprises of Latvia's Ministry of Consumer Services, which produce 46 percent of the sector's products, state lease enterprises in the spheres of trade and public dining, contract lease links of sovkhoses, and lease crews of taxi pools work on the basis of the lease contract.

What leads to the fact that, despite the support of the majority, the potentials of the reform are utilized in an obviously insufficient manner and the very essence of restructuring is distorted? The fear of a risk and the immoderate moderation of the USSR Gosplan, the USSR Ministry of Finance, and bank bodies; the bureaucratic position of a number of ministries and departments. However, also the reflex of adherence to the old on the part of many economic managers and workers of low-level and primary links. The reform also has opponents fearing the loss of undeserved privileges. There are many of them among those that hold the reigns of government. And among rank-and-file workers, who agree to earn little, but to work even less. These kindred spirits are drawn to each other in an attempt to transform waves into calm seas. How not to mention Gilyarovskiy, who once said with a sad irony: "In Russia there

are two misfortunes: the rule of darkness, below and the darkness of rule, above." In a truncated volume this phrase is also true now.

Previous reforms, owing to their cosmetic nature, did not affect the masses, skimmed the surface, and vanished. In the present situation it is personally risky to slash the reform openly. Therefore, formally, everyone is "for." And those that are "against" camouflage themselves, replace no with yes, and transform declarations into decorations and into claims against the fighters for restructuring.

The slowed-down new formations resemble healthy cells in a sick molecule. They are fragmented and one by one confront the entire old system, which is not yet licked and is not a house of cards collapsing from the slightest whiff or touch. Therefore, the too weak sprouts of the new can be torn away by it, or be reborn. A small fire without a fresh wind turns into a small piece of extinct coal, not into a bonfire.

This cannot continue for long. The genie, who was let out of the bottle, cannot be driven back to it. The person who took a sip of the air of hope wants to breathe it constantly and with a full chest. He needs a fire in everything in the

broadest sense, a fire whose spark will kindle a purifying and creative flame. "Long Live Restructuring!" is a categorical imperative of the time. If not in this manner, than in another. If not in the planned, then in a different, way. If not with present costs, then at an excessive price. If not today, then tomorrow. If not this year, then after a longer period.

The way out is to see to it that supreme party and state bodies, expressing the will of the vanguard, head and organize the preparation of new cardinal reforms and laws, undertake the risk of their urgent adoption, scatter the hardy seeds of the effective economic mechanism, and help their germination. Then the system will strengthen, will begin to self-expand and self-deepen according to the logic of continuation, will largely change over to self-adjustment and "autopilot," and will strike such deep roots that it will become irreversible.

The point of the economic compass shows that a storm is expected. Let it burst forth more strongly. The hour has struck, without fear and although with reproach, but with other vital interests, for the economy, for its workers, and for "mentors," not managers of collectives.

COPYRIGHT: Izdatelstvo "Pravda," "Ogonek," 1988

INVESTMENT, PRICES, BUDGET, FINANCE

Use of Bank Interest Rate To Control Credit Demand Discussed

Theoretical Basis Examined

18200031 Moscow *DENGI I KREDIT* in Russian No 7,
Jul 88 (signed to press 22 Jun 88) pp 34-37

[Article by S.M. Bogomolov, candidate of economic sciences]

[Text] Among the set of measures making up the contents of the radical reform of the finance-and-credit system and embracing profound changes in the management of credit, a central place is taken up by reestablishment of the basic principles of credit financing, by demarcation of budget resources from credit resources, and by straightforward adherence to the economic limits on credit financing. From the standpoint of the credit policy being conducted by socialist banks, the purport of these changes might be defined as a decisive transition to a policy of credit restrictions.

The updating of the system of centralized planned management and the transition within it to restrictive credit policy—these make up one aspect of the radical economic reform. The other side—creation of the new mechanism for the activity of the enterprise—requires broad opportunities for responsible use of credit by socialist enterprises. That is why conditions balancing the demand for and supply of credit must be laid down in the new economic mechanism. The economically sound price of credit—the rate of interest on credit—is called upon to guarantee the dynamic correspondence between the demand for credit and the supply of it and to overcome both the shortage and also excessive availability of credit in the new economic system.

As a price, the bank interest rate is an irrational form of the price of the use value, the utility, the benefit from the resources loaned. The form of such a price, as K. Marx defined it, is without content and only means that the borrower is paying “for something that somehow figures as a use value,”¹ expresses its money equivalent, i.e., its price. What we refer to as this utility, the benefit of the credit, has great importance to substantiation of the level of payment for bank loans and to balancing the demand for credit with its supply.

The approach being proposed is based on the Marxist theory of the circulation of value and consists of determining the benefit from the use of credit in terms of the enterprise's saving on advances to support the turnover of its own resources. Regardless of the specific forms of the use of credit, ultimately enlistment of borrowed resources is a condition for attaining continuity and acceleration of the turnover of the value of the assets of the socialist enterprise and for carrying out production on an expanded scale. The results of this economy have

an effect on the rate of return from the assets of the socialist enterprise. The method of computing the income earned can be used to substantiate the level of payment for borrowed resources.

Calculation of the benefit from the use of credit should take into account that “own” resources and borrowed resources participate in exactly the same way in the enterprise's turnover. During the cycle, “own” and borrowed resources become indistinguishable, and this is manifested in the identical rate of profit realized from their use. “It makes no difference to the actual movement of capital,” K. Marx noted, “whether the capital belonged to the industrial capitalist from the very beginning and therefore comes back to him simply as his property.”² This compels us to seek out a possibility of determining the profitability of borrowed resources within the total profitability of the enterprise's assets. The absence of any sort of criteria for singling out the benefit of credit with respect to the larger rate is the basis for establishing the rate of interest on credit in proportion to the profitability of production that has been attained. Calculated in this way, the interest on credit might, it would seem, be seen as the rate of efficiency of the borrower's use of the resources received on loan. As is well-known, what is new about the role being given to the interest rate under the new conditions is that it is to be included in the system of long-term stable economic rates.

A study of the mechanism by which the enterprise's net income is formed shows how justified it is to determine the interest rate on the basis of the profitability of assets. The primary element in this process is the price's formation of the size of the enterprise's net income. The main directions for radical restructuring of management of the economy define the general principles on which the new price system is being built. Under those principles, the price must “consistently reflect...the socially necessary costs of the product's production and sale, its performance characteristics and quality, and effective demand.” It is essential that “prices take into account the charge on productive assets, labor resources, and natural resources...”³

The latter provision deserves particular attention. It should be taken into account that in the conception of the new economic mechanism these charges are being given the role of standards as to the efficiency of utilization of resources. Accordingly, the portion of the enterprise's net income formed by the price figures as a certain quantity determined in proportion to the fixed and working capital on the basis of the planned rate of efficiency of their utilization; that is, the surplus product produced by live labor is distributed so as to take into account the labor embodied in the enterprise's fixed and working capital. The subjects and products of past labor do not create surplus product, but they do increase the efficiency of live labor, thereby reducing the product's cost. Thanks to the cost saving achieved per unit output, the benefit assumed in pricing is associated in a stable

way with the embodied labor. Were it otherwise (if prices were set on the basis of the value of the surplus product), enterprises with a high share of live labor would be placed in more advantageous conditions, and development of scientific-technical progress would thereby be held back.

Thus, the redistribution of value that objectively occurs in exchange forms the size of the enterprise's net income in proportion to the volume of labor used, not only live labor, but also embodied labor. The return on assets contained in the price figures as the basis for singling out the benefit from the use of credit and makes it possible to assert that some portion of the net income is proportional to the amount of resources formed from the credit to the same degree that net income is proportional to the total amount of fixed and working capital.

This proportion is the relative magnitude of the return attributable to the borrowed resources (which actually is what we are interested in in substantiating the interest rates on credit). The quantitative value of the proportion corresponds, as indicated above, to the total rate of efficiency of costs, and therefore the single planned rate of profitability of capital used in pricing can be used to substantiate the level of interest rates. Taking into account the connection of the interest rate with pricing, the rate of interest on credit must express the benefit from its use not on the basis of the indicator of profitability achieved by the given enterprise, but on the basis of the indicator of the national economic profitability of capital.

Determining the interest rate on credit on the basis of the standard rate of efficiency of the utilization of resources is in line with the goals of maintaining the optimum relation between the demand for credit and its supply.

The basis of disequilibrium between the demand for credit and its supply is disruption of the repayment of loans issued earlier because the resources are borrowed for purposes that are not in line with the requirements of circulation at the moment. When the price of credit is economically substantiated, the earning of the income necessary to repay bank loans depends on observing the limits of the needs of the moment to be covered with the credit. Any excessive credit that is taken reduces the overall level of profitability of capital employed. The income base envisaged in the planned price for repayment of the credit ends up being lower. In this case, the bank is paid interest for use of credit at the expense of the enterprise's material interests. The interest rate on credit shows the price of the level of utilization of borrowed funds which the enterprise will be able to repay without incurring a loss. The mechanism of pressure through the interest rate that is created in this way is by nature a value mechanism and reflects in the interest rate its quality as the price of the use value of the borrowed funds, and it is the realization of that value on which the possibility of its repayment depends.

As a kind of price, the interest rate expresses in a special way the necessity of using the borrowed resources for the stated purposes and in the stated proportions. Achievement of these objectives, for which the price of the credit serves as an incentive, guarantees reduction of the collectively separate interests of the enterprise in the use of credit to the socially necessary needs and results of the activity. The mechanism whereby the law of value has its regulating effect is essentially reproduced in the movement of credit by the bank interest, since at an economically substantiated level of the interest rate any use of credit that does not correspond to the socially necessary rates would mean a drop in the level of the enterprise's income.

From the standpoint of the interrelationship between interest and the law of value, it is legitimate to look at the interest on credit as an economic interest based on use of the principles of equivalency and reimbursability proper to commodity-money relations. Provided the level of the interest rate is economically sound, relations based on compensation represented by the charge for credit is the means of confiscating profit on resources formed from the credit that is to be distributed within the planned price. The need for credit of enterprises in different sectors and branches is objectively different, just as the size of the income on credit afforded by the price is also different. Confiscation of this income through the charge on credit essentially guarantees the equivalency of relations among enterprise collectives in different sectors and branches as an economically equal exchange of activity between entities with equal rights. It is significant that the difference between the level of repayment of bank loans and the level of income envisaged in the planned price leaves at the enterprise's disposition income allowing it to repay loans taken in excess. The essence of the functioning of the law of value under socialism lies in achievement of the equivalency of exchange, and interest on credit figures as an important instrument in its use.

So, in our opinion a system of interest rates that would be based on the national economic level of the profitability of assets is appropriate to the new economic situation, which assumes invigoration of the role of the bank interest rate in eliminating the deformation of the demand for credit and its supply. A system of interest rates on credit structured in this way must express a certain coefficient Ye_{pk} , i.e., must determine for the enterprise the need of using the credit at the level of 12-percent profitability, which is uniform for the national economy as a whole.

At the same time, use of the bank interest rate for the purpose of combining the interest of work collectives with the interest of the entire nation, and that is exactly the purpose of the system of standard rates in which the rate of interest on credit is an element within the framework of the new conception of the economic mechanism, produces one essential feature. The stimulation of enterprises to achieve national economic efficiency of

their capital presupposes that a portion of the income received from the use of credit remains at their disposition. That portion, if it is calculated on the basis of the share of profit left in the economy which is the most widespread in distribution, might be one-third of the income realized. Adjusting the initial rate of 12 percent by that value, we get an interest rate of 8 percent per annum for repayment of bank loans. The quantitative discrepancy between the proposed rate and the required level of the utilization of the credit does not contradict the purpose of the bank interest rate. The enterprise's motivation to realize and use profit in its own turnover is an incentive for attaining the necessary profitability in use of the borrowed resources.

In our opinion, this kind of transformation of the system of interest rates will make it possible to enhance the role of an important economic standard applied to the performance of the socialist enterprise—the rate of interest on credit. But the constructive capabilities of the bank interest rate go further than that. The role of the interest rate as an economic standard lies not only in the fact that it is a part of the mechanism of the enterprise's economic activity, but also in its use within the system of centralized management through the plan.

When this value instrument is included in the system of centralized management, it must be taken into account that the possibility of planned management of credit is based on the planned nature of the circulation of value of the assets of the socialist enterprise. The principles of credit financing bring about the interrelationship between the movement of credit and the physical circulation of assets. If repayability is the basic and dominant principle of credit financing, then promptness outlines the mechanism for achievement of repayability on the basis of physical circulation, the principle of security relates the movement of credit to the movement of physical assets in the process of their circulation, and the earmarked nature of credit establishes the method of achieving the material security of the resources borrowed. Using this well-known definition of the principles of credit financing, we can frame the conclusion that with respect to management of credit ruble control is needed over observance of its principles through differentiation of the conditions for repayment of loans. Exaction of interest at a fixed rate is not sufficient to guarantee that proportions in the use of credit will conform to the plan; bank interest rates must in our view be differentiated as a function of observance of the principles of credit financing.

In the light of this requirement, it is the fact that needs for loans that involve violation of the principles of credit financing in effect lie outside the plan that serves as a criterion for differentiation of bank interest rates. Here, the very content of the process of distribution of profit, as a process of material incentives for success achieved in coping with production programs and financial programs, precludes the need to adjust the amount of payment for loans that lie outside the plan for the

amount of profit left in the economy. The rates of the charge for loans outside the plan (exceeding the planned amount of credit within the preferential credit financing rules, the credit that still exists for payment of wages, etc.) must envisage confiscation of the entire profit on the credit that is to be distributed within the price and must be set at the level of 12 percent per annum, which was the initial rate in our calculations.

The level of repayment of delinquent loans must in turn not only deprive the enterprise of sources of additional transfers to its cost-accounting funds, but by way of a penalty it is also a direct deduction from the profit going to satisfy the enterprise's needs. To those ends, the bank interest rate on delinquent loans must be 15 percent.

The proposed strategy cannot, of course, solve all the problems of present-day interest rate policy. Invigoration of the role of interest in the process of restructuring the economic mechanism presupposes performance of an interrelated set of measures including the following: changing the procedure for establishing interest rates, developing new directions for the use of interest in management of credit resources, expansion of the sphere of its use in the bank's borrowing and lending operations, improvement of the scale and optimization of the level of interest rates on credit, development of the new role of an economic standard for the interest rate, using it as an aid to achieve relations of partnership between the bank and the economy, creating the conditions for conversion of banks to full cost accounting, and expansion of bank independence in the use of the interest rate. The recommended changes in the level and system for exaction of interest rates is only a part of overall interest rate policy. But the need to perform them is in our view dictated by the new economic situation and represents an urgent economic task.

Footnotes

1. K. Marx and F. Engels, "Soch." [Works], Vol 25, Part I, p 389.
2. Ibid., p 382.
3. "Materialy Plenuma TsK KPSS, 25-26 iyunya 1987 goda" [Materials of the Plenum of the CPSU Central Committee Held 25-26 June 1987], Moscow, Politizdat, 1987, p 97.

Operation Under New Conditions

18200031 Moscow DENG I KREDIT in Russian No 7, Jul 88 (signed to press 22 Jun 88) pp 37-40

[Article by A.Yu. Simanovskiy, chief adviser in the Administration for the Methodology of Credit and Settlement Relations of USSR Gosbank]

[Text] Greater attention is being paid to the various elements of the economic mechanism in connection with the transition to predominantly economic methods of

managing the national economy. This has related to increasing the role of economic levers in the system for management of the national economic complex. One such lever is the bank interest rate. The interest being shown in the problems of interest rate policy, then, including determination of the sources from which the interest on credit is to be paid, is no accident.

Various opinions have been represented in this matter in the economics literature. To be specific, some authors suppose that the fund for development of production, science, and technology (FRPNT) is the source for payment of interest on credit appropriate to the nature of full cost accounting, not the profit of enterprises.

The differences in the theoretical approaches to this problem are reflected in economic practice. As is well-known, interest on long-term credit extended for construction of production facilities is paid out of the fund for development of production, science, and technology. As for interest on short-term credit,¹ beginning in 1988 most enterprises operating in the context of full cost accounting and self-financing pay it from profit. At the same time, the procedure for payment of interest on short-term credit from the FRPNT, which was in effect in 1987, has been retained for enterprises of Minavtoprom, Minneftekhimprom, and Minpribor for the period 1988-1990.

Obviously, the difference in sources for payment of interest on credit cannot be explained by sectoral peculiarities, since the economic nature of credit, interest, profit, and the FRPNT is the same in all cases.

It is equally obvious that differences in sources of payment for the interest on credit result in a differing impact of interest rate policy on the borrower. This follows from the very peculiarities of the place occupied by profit and the FRPNT in the system of economic relations as a whole and in the economics of the enterprise in particular.

Thus, the task of determining the source for payment of interest on credit consists above all of defining in principle the place which interest has in the structure of economic relations. Performance of this task presupposes clarification of the nature of the relations between interest and such economic forms as credit, profit, and the FRPNT. At the same time, it should be borne in mind that practice alone affords the final evaluation of the correctness of theoretical assumptions.

We will examine first of all the relation between interest and credit. In the most general definition, interest is the "payment the creditor receives from the borrower for use of the money or physical values borrowed."² In the advanced (money) form, interest figures as an irrational form of the "price" of credit, a form derived from it. In view of the organic relation between interest and credit, it would seem advisable not to get away from it even in specific economic matters. Starting from this premise,

we take up the question of the source for the payment of interest on credit in the context of the question of the source for repayment of the credit itself.

Credit extended to ensure the continuity of the cycle of reproduction at the starting point of the cycle (D) mediates all its stages (D -(T/3P)...P...T¹ - D¹) and may realistically be returned only as the result of completion of the cycle, i.e., from the proceeds of sale of the product—D¹. Since the value extended as credit, as it makes the transition from the money form to the commodity form, is embodied in the subjects of labor and is also used as an advance for remuneration of labor, it is an organic part of production costs, the product's production cost.

As for the interest on credit, the value which it expresses is obviously not advanced and does not take part in payment for physical and personal factors of production, and consequently does not have an equivalent in the production cost. Thus, the socially normal source for repayment of interest on credit can only be that portion of the proceeds that exceeds the product's production cost, i.e., profit.³

The next question is that of concretizing the source for repayment of interest on credit. Should that source be the FRPNT, which is formed in the profit distribution procedure, or should it be profit itself, before it is distributed among cost-accounting funds?

It is clear from general methodological positions that the main difference between these sources is determined by the specific place which they occupy in the system of production relations, including the relations of distribution.

Profit is the direct form of the surplus product, the result of breaking down the value realized into concrete economic forms: $C = (C_1 + C_2)$,⁴ V, and m. Profit as such is a collective category expressing the differing economic interests of participants in the process of reproduction, which in fact determines its further distribution among those entities (the state, the bank, the superior organization, the enterprise).

The FRPNT is derivative in nature and is formed in the procedure for subsequent distribution of C₁ and m. This fund expresses the interest of the enterprise's collective.

Profit and the FRPNT are related not directly, but through the cost-accounting income of the enterprise. This results from the fact that the process of distribution of profit has several phases. In the course of primary distribution, profit is broken down into the income of the various participants in the process of reproduction. Only by assuming the form of cost-accounting income of the enterprise in the process of primary distribution is a part of it then credited to the FRPNT. At the same time,

this fund is also formed from other sources, including above all depreciation deductions for full replacement of capital assets and the proceeds from sale of property that has been retired.

Thus, profit is a direct result of the distribution of the value of the product among elements, while the FRPNT is the result of the further distribution of the elements of value themselves, including only a portion of profit. It should be pointed out that in the formation of the FRPNT distribution is not primary in nature—among the participants in the process of distribution, but a secondary process derived from the cost-accounting income of its main participant—the enterprise.

To which group of distributive processes—primary or derivative—does the payment of interest on credit belong in view of its economic content? The answer to this question provides the key to substantiating the specific source from which interest is to be paid.

We share the viewpoint of those economists who believe that payment of interest on credit, which is a reflection of production relations in the sphere of distribution, is a variety of the charge on resources (along with the charge on assets, on natural resources) transferred to the borrower for temporary use.

When we define in this way the place of interest on credit in the economic structure of socialist society, we have to acknowledge that interest is one of the categories of primary distribution of profit among the participants in the process of reproduction.

This question also has another particular aspect. It is clear from considerations of formal logic that profit cannot take on the form of cost-accounting income, i.e., of the enterprise's own resources, until it has been purged of payments related to obligations of other contracting parties in cost-accounting relations. Only after all amounts to which partners are entitled have been eliminated, and in real terms only after all relevant payments have been made, can profit figure as the authentic income of the collective to be used for consumption and accumulation. For its part, interest, along with credit, is objectively included in the system of the enterprise's cost-accounting relations.

With respect to the form it takes the payment of interest on credit figures for the enterprise as an expenditure resulting in a reduction of the financial results of its activity "for itself";⁵ for the bank, on the other hand, it figures as gross income, the material basis for carrying on banking functions.

In examining the legitimacy of relating the interest on credit to the FRPNT from the positions of the cost-accounting interest of the bank and the enterprise, we also need to point out the following aspect of the problem. Whereas the specific source from which interest on credit is repaid has no real significance for the

bank,⁶ since this is not reflected in its total income, for the enterprise this question takes on fundamental importance. Since all the sources from which it is created become indistinguishable within the FRPNT, when the resources of the fund are insufficient with respect to that portion represented by transfers from profit, interest on credit will actually be paid out of depreciation and other sources that figure directly as sources of simple and expanded reproduction of fixed capital. Thus, shortcomings in the performance of the enterprise, instead of being covered by virtue of a reduction of the possibilities for productive accumulation and consumption of the enterprise's collective, will be covered on the basis of a shrinkage of the financial base for accumulation and simple reproduction, with no curtailment of the size of consumption. This obviously undermines the cost-accounting foundations of the enterprise's activity, and in this context the specific source for payment of interest is by no means a matter of indifference to the bank as an entity in the centralized management of the economy nor to society as a whole. The arguments made above may be applied to sources for payment of interest on both short-term and also long-term credit.

There is also a theoretical argument against associating interest specifically on short-term credit with the FRPNT. As is well-known, short-term credit is mainly supposed to support the conditions of the enterprise's current activity, the conditions of simple reproduction, by which is meant reproduction on a given material and technical base. The FRPNT is intended mainly to finance expanded reproduction, and consequently possesses from this standpoint an economic nature that differs from the nature of short-term credit.

The argument of advocates of the payment of interest on short-term credit out of the FRPNT is that credit serves as a borrowed source for augmenting the enterprise's working capital and as such "replaces" the FRPNT, whose resources in the enterprise may commit to that purpose in the context of self-financing.⁷

However, as has been noted, the source for repayment of interest on credit (profit) and the source for repayment of the credit itself (that portion of proceeds governing the production cost of the newly created product) are not identical. That is why the interchangeability of the FRPNT and credit as sources for the growth of working capital does not seem at all to solve the problem of the source from which interest on credit should be paid. Accordingly, this argument is not valid.

Summarizing what we have said, we can frame the conclusion that it is not legitimate to look on the FRPNT as an alternative to profit as a source from which to pay interest on credit.

We will turn to the practical consequences of using the different sources for repayment of interest on credit. On behalf of a more reliable analysis we have to examine

situations reflecting both relative growth and also reduction of the amount of interest paid on credit as compared to the base period. Other conditions being equal, it is obvious, the rate at which interest is paid on credit is inversely proportional to the dynamic behavior of the level of use of fixed and working capital. Leaving the attendant circumstances to one side, we can suppose that the relative growth of the amount of interest paid on credit is brought about by a drop in the efficiency of utilization of the enterprise's productive capital as well as of resources intended for capital investments. Reduction of the amount of interest paid on credit, on the contrary, indicates an increase in the efficiency of the use of capital.

It is well-known that the effectiveness of interest rate policy is determined by the degree of its impact on the cost-accounting interest of the enterprise as a whole, including its impact on the financial motivation of workers with respect to the results of employment of productive capital. The appropriate calculations have been made in order to estimate the effect of payment of interest on credit from the different sources (profit and the FRPNT) on the size of enterprises' cost-accounting funds.⁸

An analysis of their results shows that when the interest on credit is paid out of the FRPNT the effectiveness of the interest rate as an incentive for improving the quality of work is diminished. As a matter of fact, neither the saving on interest paid on credit resulting from improved employment of labor resources, physical resources, and financial resources, nor additional expenditures to pay interest because employment of these resources are deteriorated is reflected in the enterprise's opportunities to develop social services and provide material incentives to the collective.

We will illustrate this with the specific example of the Moscow Motor Vehicle Plant imeni Leninskiy Komsomol. The computation, which was made on the basis of data for the period 1985-1987, shows that as a result of higher efficiency in the use of credit and a reduction in the credit-intensiveness of production the saving on the payment of interest on credit at the head enterprise in 1987 represented 70,000 rubles against the amount of payment of interest on credit assumed in calculating the economic standards. Distribution of this saving when interest on credit is paid from profit would be as follows: 40,000 rubles would go to the fund for development of production, science, and technology; 18,000 rubles would go to the fund for social development; and 12,000 rubles would go to the material incentive fund. If the interest on credit were paid from the FRPNT, the entire amount of the saving would remain within the resources of that fund.

It is evident from this example that the procedure for payment of interest on credit from the fund for development of production, science, and technology is not in line with the task that has been set of achieving a radical

improvement of the efficiency of employment of labor resources, physical resources, and financial resources. Nor is this procedure in line with the need to reestablish the true purpose of credit, since in this case credit is transformed through the mechanism for payment of interest from a factor for raising the level of organization of the enterprise's economic activity to a factor holding back restructuring of the economic system on the principles of full cost accounting. On the contrary, when interest on credit is paid directly out of profit, the impact of interest rate policy toward higher efficiency in the employment of resources is vigorously achieved through the mechanism for strengthening the economic motivation and responsibility of enterprises.

So, the procedure for payment of interest on credit from enterprise profit is an appropriate condition of full cost accounting and self-financing. This procedure realizes the economic nature of interest on credit and is optimal from the standpoint of the impact of the credit mechanism toward higher efficiency of economic activity.

In line with this presentation it seems advisable to make changes in the economic mechanism now in effect and to establish profit as the sole source for payment of interest on all types of credit. Moreover, over the period that the standards established for enterprises in the 12th FYP are in effect, the level of interest rates on credit must be stable and must correspond to the level of the base period (the period whose indicators were taken as the basis in calculating the standard rates).

Footnotes

1. Starting with the economic nature of loans, it is more correct to divide them into loans for capital assets and loans for working capital, loans of money and of "capital." The division into short-term and long-term credit is used in the article not to depart from the tradition. The term short-term credit refers to credit for working capital, as a loan of money and a loan of "capital."
2. "Finansovo-kreditnyy slovar" [Finance-and-Credit Dictionary], Vol 2, Moscow, Finansy i statistika, 1986, p 489.
3. We are leaving aside the turnover tax as a form of the surplus product that is to some degree artificial and involves a substantial departure of prices from value.
4. C_1 is the value of machines and equipment carried over into the product, while C_2 represents the cost of the subjects of labor.
5. This creates the illusion that the interest on credit is a part of the enterprise's production costs. From the standpoint of the enterprise this approach has a real external justification. But from the standpoint of the economy as a whole, interest is a form of profit, not a form of production costs.

6. This is valid only in this context, i.e., for the bank as a cost-accounting entity.

7. This, incidentally, raises the problem of granting the enterprise the right to channel extra working capital into the FRPNT.

8. The calculations were made in conformity with the Standard Regulation on Normative Distribution of Profit in the 12th FYP.

COPYRIGHT: "Dengi i kredit," 1988

AGRO-ECONOMICS, POLICY, ORGANIZATION

Kirghiz SSR Gosagroprom Economic Transformation Discussed

18240092 Frunze SELSKOYE KHOZYAYSTVO
KIRGIZII in Russian No 5, May 88 pp 24-25

[Letters from readers: "Gosagroprom on Cost-Accounting?"; first two paragraphs are SELSKOYE KHOZYAYSTVO KIRGIZII introduction; this article is a follow-up to 18240083, published in JPRS-UEA-029, 15 July 1988]

[Text] The article "Gosagroprom on Cost-Accounting?" (No 2, 1988) discussed the imperfection of the existing APK management system and the lack of material interest in a qualitative growth of agro-industrial production on the part of workers in the republic's Gosagroprom apparatus. The author maintained that this could be attained only if managers are included in economic relations.

As was to be expected, readers quickly responded to this article (the first selection of letters was included in the previous issue). Their thoughts do not coincide in everything. At times very disputable opinions are expressed. However, everyone unanimously supports the idea of the transfer of the republic's Gosagroprom apparatus to cost accounting.

I wholeheartedly support B. Talgarbekov's proposal. I hope that under cost-accounting conditions the Gosagroprom apparatus will finally wake up from its long sleep and overcome its indifference. But what is happening? A real squandering of public funds, but it appears that no one is to blame. For example, go to the Tokmak Wool Processing Factory. Money is wasted here. You don't believe? Ask what they do with suint in wool. I will answer: They wash it away with chemical agents and use it as a mineral fertilizer. Yet, comrades, a high-quality cosmetic and medical preparation can be made from suint. It is also valued on the foreign market!

Moreover, the Gosagroprom does not know how many sheep the republic is able to keep. If they had given access to materials and enlisted broad specialists, they would have calculated everything.

Incidentally, about materials. Here is one of the confirmations of how bureaucrats can (and how they know how to) make a problem out of a trifle. What do I have in mind? One studies some problem, gathers materials, and uses statistical collections. As is known, however, new data will not be found in them. One day I went to the Gosagroprom and not with empty hands. I armed myself in advance with an official letter signed by the rector of the university. I made the rounds of several offices and wound up with V. Chelishcheva, chief of the Main Planning Committee. I said: "They will not give them without your permission." She said: "Who are you? A graduate student."

In brief, having accomplished nothing, I went home. Although I did not understand whether they were afraid of leaking state secrets, or did not want unnecessary trouble.

Ch. Duyshenaliyev, geographer.

Should the Gosagroprom apparatus be transferred to cost accounting or not—there cannot be two opinions here. It should. However, I believe that we should not rush with this. We are simply not ready for this radical measure. Cost accounting has not yet been properly mastered even at kolkhozes, sovkhoses, and enterprises. RAPO and oblAPO have not yet changed over to it. Therefore, it is necessary to do all this in stages, to begin from below, and not to run ahead. Otherwise, we will add fuel to the fire.

B. Bukashev, head of a sector at the Scientific Research Institute of Economics of the republic's Gosagroprom

It is impossible not to agree with the author that to this day planning is carried out by administrative methods. In fact, the Gosplan repeatedly and groundlessly corrects control figures and does not always take local conditions into consideration. Experience also shows that Gosagroprom specialists do not go deeply into this matter. During the preparation of plans both departments ignore the opinion of practical workers, but in their apparatus there are many specialists who came there right out of school. Hence the routine approach to many problems and the isolation of planning from practice.

How to change this, frankly speaking, abnormal situation? I think that it is necessary to enlist scientists and production workers in work in the Gosplan and Gosagroprom apparatus, which, incidentally, was widely practised during the first years of Soviet rule. Of course, it is necessary to transfer the apparatus of both departments to cost accounting. Yes, I did not make a slip of the tongue: both the Gosagroprom and the Gosplan. As long as they do not work on the basis of cost accounting, we will not attain scientifically substantiated planning.

M. Akynbayev, candidate of economic sciences.

As is obvious from B. Talgarbekov's article, one of the serious reasons for the deceleration of restructuring in the republic's APK lies in the fact that the managerial apparatus does not keep pace with the changes in the economic activity of labor collectives. For now restructuring in agroprom bodies has touched only upon external parameters. For example, staffs have been reduced, there are more appeals to use economic methods, and so forth. At the same time, the Law on the State Enterprise (Association) begins to fundamentally change the working conditions of direct producers. An obvious contradiction between them and the command center arises and it is not eliminated if the latter itself does not use economic methods of management. But for now power continues to be in the hands of the same forces that have

brought agriculture to the present state. Therefore, for them restructuring in the APK is again just another set of "measures." A legitimate question suggests itself: Has the period given to APK management bodies so that they, in practice, may fulfill the promise for a "fuller satisfaction of the population's needs" not expired? Moreover, such a conclusion is convincingly confirmed in the article "Archimedean Lever of Management" by K. Yun, deputy head of a department at the Central Committee of the Communist Party of Kirghizia: "... the vast Gosagroprom apparatus consisting of 749 specialists, essentially, runs idle (my stress—A. K.).

A. Kochkunov, candidate of historical sciences.

It is necessary to strengthen the role of the republic's Gosplan, which should be transferred to a wage system based on final annual results both in industry and in agriculture.

The Gosplan will determine the republic's economic policy according to the principle of the so-called "middle line," that is, in the form of general strategic orders at enterprises and kolkhozes.

The remaining part of the activity of enterprises, kolkhozes, and sovkhoses should be determined by the market and market relations, especially as according to the USSR Constitution kolkhozes are independent economic units.

Thus, I believe that only full cost accounting permeating the entire national economy from the primary labor unit to the highest economic management body with the use of socialist competition can get us out of the dead-end economic situation that has been created.

S. Artemov, philosopher.

I assume that most responses to B. Talgarbekov's article will be connected with the idea of transferring the republic's Gosagroprom to cost accounting, because precisely this aspect of the publication, on the one hand, directly affects the interests of managers, who actively read your journal and, on the other, is in the course of such a timely problem as the change in the role of the bureaucratic apparatus in the economy. In my opinion, however, the article also has other interesting ideas, which need to be discussed and developed further (they are slightly obscured by the article's title). First of all, it has the original concept that at present a normal development of agricultural production is possible only as a result of the coordination of its three criteria: stability, cost-accounting income, and plan fulfillment.

Historically, it turned out that precisely the aspect of economic stability and maintaining a certain level of satisfaction of needs on the basis of preservation of the existing attitude toward the environment and of the

natural basis for existence was paramount for the natural-patriarchal economy. Commodity production, occupying a ruling position in society under capitalism, brings a new dominant to economic activity—profit. Before that socialism demanded the subordination of production primarily to the state plan. At the same time, the criteria of stability and profit (or of cost-accounting income) were not included as necessary and equal factors in the system of goals moving the economy forward, but, conversely, were belittled by the authoritative pressure of the plan. Disregard for the real needs and interests of producers became the reverse of this process, because a coordination of the enumerated criteria could occur only as a coordination of different interests.

In order to attain their optimal correlation, we must be guided by actual interests, not by imaginary ones, which have been taken for real for so long. This is fair both with regard to those who manage and those that are managed. Concerning the former an error raised to the rank of an official directive prevailed. According to it, their interests are directly connected with the development of the best plans and, therefore, there is no need to include managers in economic relations. (The article shows that this is not so). In my opinion, however, a certain idealization with regard to the interests of the latter is also allowed.

Now it is believed that in collectives everyone is interested in the growth of cost-accounting income. However, for some social groups this can prove to be incorrect. Many rural settlements do not have a water supply line, a medical center, a pharmacy, club institutions, children's preschool institutions, or baths and are without regular and fully adequate domestic services. In itself the growth of the rural population's income cannot rectify the situation in the social sphere. The impossibility of meeting these urgent needs with modern means determines the high value of the traditional domestic style of life and does not contribute to the development of a system of needs. This results in a strong gravitation toward an unchanged reproduction of the established structure of life. Such a traditional motivation in itself is aimed more toward a stable management of production with the preservation of significant reserves and is little disposed toward more stepped-up work.

With regard to these social groups (as to all other) the plan compulsorily produced production growth in the prereform system. However, the transition from the planned-compulsory to the planned-cost-accounting mechanism can encounter motivational limits of growth and serious difficulties owing to the lack of incentives for economic activity.

Therefore, the economic reform at the APK fully justifies the hopes pinned on it only by joining a profound social transformation of rural areas, which will develop the entire set of conditions for the vital activity of the rural population and will lend dynamism and to a greater extent modern features to its way of life.

Otherwise, the insufficient social and economic activity of rural areas will become the ground, on which bureaucratic-command management, which always strives to compensate for shortcomings in the producer's activity with power pressure on him, will again intensify.

As we see, in itself the cost accounting of APK management bodies is by no means a universal medicine against all the troubles of the administrative system. Economic interest in the preparation of a high-quality plan should be coordinated with an activation of producers. I will stress again that social transformations in rural areas acquire great importance here. Only a set of these processes can balance the aspirations for stability and cost accounting income with each other and taken together, with plan requirements. In my opinion, the main value of B. Talgarbekov's article lies in the overall approach to these three factors.

M. Goldgeyl, economist.

The stagnation in the economy, which was felt as far back as 20 to 25 years ago, is largely, if not basically, linked with the imperfection of the economic mechanism. The state of its agrarian sector is an especially eloquent evidence of this. It, along with present flaws, focused elements of anachronism of the past in itself. Only the first step has been taken in the solution of these

problems—an attempt has been made to bring the structure of related sectors into conformity with their functions in the form of the APK. However, this in itself is not a pledge or a guarantee of the rationalization and efficient functioning of the economy's agro-industrial sphere. Adequate mechanisms and means and levers of attainment of high national economic results should be placed under the new structure.

The article under discussion is devoted to their search and substantiation. In particular, it suggests that APK apparatuses on various hierarchical levels be transferred to cost accounting. The advisability of this innovation is obvious. Otherwise, the sector's staff will never become a strategist in the development of prospects, a generator of ideas, and a stimulator of the introduction of the achievements gained by science, technology, and advanced experience. For example, having the vast potential of raw furs and hides at its disposal, Kirghizia processes them not in a full volume and on a semiprimitive level. If this potential is activated maximally, it is possible to count not only on an economic effect, but also on a social advantage: increase in the employment and introduction of rural inhabitants to industrial labor and entry into the world market with products in unchangeable demand. There is a mass of such examples.

B. Sarygulov, candidate of economic sciences.

COPYRIGHT: Izdatelstvo TSK Kompartii Kirgizii, "Selskoye khozyaystvo Kirgizii," 1988

POST-PROCUREMENT PROCESSING

Problems In Uzbekistan's Food Processing Industry

Food Processing, Storage Problems

18240095 Moscow SELSKAYA ZHIZN in Russian
19 Jun 88 p 2

[Report on "roundtable" by M. Babintsev and A. Kucherenko, special correspondents of SELSKAYA ZHIZN: "Between the Field and the Counter"]

[Text] Let us describe the situation: Basically, canned goods, beverages, and boxes of sweets with labels of Russian, Ukrainian, and Moldavian plants and combines stand on the counters of Uzbek stores. One can rarely see products of local enterprises. Raw materials for food and other sectors of industry are also brought to the republic. But there are big opportunities for processing field and farm products in the republic. How to realize them?

A program for reconstructing existing plants, factories, and combines, introducing the achievements of scientific and technical progress and new technologies, and developing the social sphere has been worked out in Uzbekistan. There is a turning point. About 200 enterprises are being built and renovated simultaneously and hundreds of millions of rubles are being invested in the development of processing.

As yet, however, not everything is smooth. The editorial department asked scientists, managers of the republic Gosagroprom, farms, and enterprises, builders, and workers to discuss urgent problems at a "roundtable."

S. G. Khorev, deputy chairman of the Uzbek SSR Gosagroprom:

There are 36 canning plants in the republic. Most of them were built during prewar and war years. Until recently hardly any attention was paid to these enterprises. They began to collapse in the literal sense of the word. We squeeze out everything that is possible from obsolete and worn out equipment.

Primitive equipment, manual labor, and crowded conditions. Nevertheless, after the conference at the CPSU Central Committee last October, where the question of a fundamental reconstruction of processing sectors was raised sharply, the situation is changing. It is changing slowly, I would say, with a "squeak," but it is changing. And for the better. For the first time last year we produced more than 1 billion standard cans of food. A total of 1.02 billion cans are now planned.

Reconstruction and new construction have helped. Two new canning plants have been put into operation. Lines for the production of fruit juices and tomato paste have been installed and operate at a number of enterprises.

In 2 years of the five-year plan the capacity of canning production facilities has increased by 126 million standard cans. The increase is substantial. There is a guarantee that lines in front of plants will be reduced. What has been done shows: We don't sit with our hands folded. The rates of construction and reconstruction grow and we cope with plans. However, suppliers disappoint us. We additionally need 275 tons of food tin, 12 million half-liter bottles, and 4.2 million cans of the same capacity.

All this represents our present concerns. But, as I understand, the question is raised as follows: What goal will we reach by the end of the five-year plan?

S. M. Oganesyanyan, deputy chief of the Main Administration of Fruits and Vegetables of the Uzbek SSR Gosagroprom:

In accordance with the government decree, through reconstruction and new construction it is necessary to commission capacities for another 785 million standard cans by 1990. In practice, in 2 and 1/2 years we will have to double our potential, which, in turn, needs to be renewed. Are we ready for this? I am not confident.

S. G. Khorev:

I also doubt the reality of such an assignment. Too many problems with equipment, construction, and provision with finances and materials arise. Together with builders we search for ways of coping with the new assignment. The point is that reconstruction plans are constantly "corrected" toward an increase without taking our capabilities into account.

B. K. Kasymkhodzhayev, deputy chairman of the Uzbek SSR Gosagroprom:

We are rightly criticized for importing confectionery and other food products. Nevertheless, despite many shortcomings, oversights, and slipups, the food industry has finally begun to develop.

In the last 2 years production capacities have increased owing to the expansion and reconstruction of enterprises. Last year the republic's workers additionally obtained 11,700 tons of confectionery products, 3.2 million decaliters of nonalcoholic beverages, 17 million bottles of mineral water, and many other products.

All these are the fruits of reconstruction. In 2 years food industry workers have assembled 11 overallly mechanized lines for the production of high-quality sweets, marshmallow-fruit jelly products, toffee, and caramels, five lines for bottling nonalcoholic beverages and mineral water, and 12 prepressing units.

However, this is extremely insufficient for the solution of this problem. May the reader forgive me for the abundance of figures: By 1990, according to the plan, we need

to double the production of confectionery products and to additionally produce about 70 million bottles of mineral water, 60,000 tons of vegetable oil, and many other products.

Could more have been done? Undoubtedly. Disregard for the sector's needs on the part of the republic's former management led to the fact that it was necessary to begin reconstruction almost from zero. Its "Majesty" Cotton "forced" our problems out to the background for too long.

Almost one-half of the equipment has become obsolete and worn out and the proportion of manual labor exceeds 40 percent. Some, especially oil and fat, enterprises, are located in makeshift buildings constructed as long ago as the 1920's-1930's. There is a need for a fundamental and radical turning point in the renewal of the food sector. I speak calmly, but, believe me, these words burst out from the soul.

Through the reconstruction, retooling, and reprofiling of production facilities we will have to establish capacities for 39,000 tons of confectionery products, build new nonalcoholic beverage plants in the cities of Gulistan, Gallyaara, Termez, and Nukus, renovate Andizhan and Kattakurgan oil and fat combines and Kagan and Leninsk oil extraction plants, and erect confectionery factories in Tashkent and Samarkand... All this must be done during the remaining 2 and 1/2 years of the five-year plan.

A. F. Danko, director of the Yangiyul Lazvat Production Association:

Our association is also on the list of reconstructed enterprises. However, the rates of reconstruction are such that we will hardly cope with it before the end of the century. Let us look at things realistically and not build castles in the air. The rates of renewal must be increased three- to fourfold in order to reach the control figures determined by the CPSU Central Committee. Builders let us down greatly.

T. N. Nabiyeu, deputy chairman of the republic Gosagroprom, minister:

The meat and dairy sector is the most complex. There is a shortage of meat products on counters. It is necessary to constantly increase output both in terms of quantity and assortment.

Something is being done in this respect. Last year 15 types of meat and 11 types of dairy products were mastered. About 6,000 tons of meat and 60,000 tons of milk—more than the assignment—were saved. Seven mechanized flow lines and seven automatic machines were introduced.

Figures are figures, but, if we view our work with the customer's eyes, there has been a very small increase in meat, sausages, and dairy products on counters.

Will there be a radical turning point? One would like it. If the program developed by the government is fulfilled, it will make it possible to eliminate the acuteness of the problem.

Kh. T. Salomov, director of the Central Asian Scientific Research and Planning-Design Institute of the Food Industry:

With what do we, the republic's scientists, help the development of processing? Frankly speaking, our contribution is quite modest. The annual economic effect from the introduction of developments is less than 2 million rubles.

The Scientific Production Association of Nonalcoholic Beverages proposed an original technology of production of powder-like beverages. Scientists at Tashkent State University and the Institute of Botany of the Uzbek SSR Academy of Sciences developed concentrates, extracts, and preservatives from local spicy-aromatic raw materials.

Innovations of the All-Union Scientific Research Institute of the Confectionery Industry in the production of sweets with the use of swelling starch, surface active substances, and fats analogous to cocoa-oil are widely introduced at confectionery factories. This makes it possible not only to improve the quality [of products], but also to significantly save imported raw materials.

We have developed a technology of adsorptive cleaning of oil with silica gels. This makes it possible to improve its quality and to reduce losses. We are conducting fundamental research based on the biotechnology of splitting cotton soap stocks. The object is to obtain gelatinous substances and pigments for the food industry.

Together with the Spet Firm from the GDR we are designing shelling-separating units of a productivity of 250 to 300 tons in 24 hours and are developing an automated system for a rapid analysis of the quality of cotton seeds and designs of machines for the mechanization of labor-intensive processes at oil and fat enterprises.

I say all this, but the long-ripened thought that much more can be done does not leave me. The institute does not have an experimental base. It is difficult to test promising ideas in practice and to set up a production experiment. Of course, it is possible to conduct research and experiments at existing enterprises. But we are unwanted guests here.

Why should we not establish on the basis of our institute a Central Asian Scientific Production Association of the Food Industry with the inclusion of a machine plant in it? Then we will be able to solve complex production problems, as well as to design and embody equipment in metal.

We came to the USSR Gosagroprom with a proposal. But we did not receive an answer.

I remain firmly convinced that without creative science we cannot advance the cause of processing.

A. N. Skorobogatko, chief of the Main Administration of Capital Construction Planning of the Uzbek SSR Gosagroprom:

The speakers at the "roundtable" clearly outlined the problem. And we, builders, caught hell. For example, in the meat and dairy sector in 2 years contractors have utilized about 39 million rubles with a plan of 54 million rubles. There are disruptions in the construction and reconstruction of projects of the canning and food industry, although, on the whole, this year's assignments are being overfulfilled.

I will be self-critical: We could have worked much better during the past 2 years. We poorly introduce cost accounting and the contract. We scatter forces over numerous projects. This is on the one hand.

On the other hand, in my opinion, all of us together should undertake the solution of such big and important problems as processing. But what is in practice? Departmental barriers are again rising up to the sky when it is necessary to solve key problems. I will back up my statement. Until recently plans for processing projects were made outside the republic. Not many of them were needed. The scope of work has sharply risen now. We are establishing our own planning institutes. But there is nowhere to place specialists. Construction organizations of other ministries refuse to help in the construction and reconstruction of processing enterprises. We are engaged in arguments and in a fruitless correspondence with them. We hope that the Central Committee of the Communist Party of Uzbekistan and the republic government will support us. After all, there are specific assignments for every department. It is necessary to fulfill them and not to search for "objective" reasons for disrupting them.

Financing problems also trouble us. Whereas for this year we have received funds from the state budget, in 1989, in connection with the transfer of builders and processing sector workers to cost accounting, the situation will become sharply aggravated.

Most enterprises of processing sectors are unprofitable. We have submitted a proposal to the USSR Gosagroprom to retain centralized financing for a number of projects. However, we have no support. This places the fulfillment of the program for the construction and reconstruction of processing enterprises under the threat of a disruption. The problem should be solved today. It is time to order plans, materials, and equipment.

Comments by Correspondents

If to judge realistically, the reconstruction and construction of enterprises of processing sectors in Uzbekistan are only unfolding. This undertaking is proceeding with

difficulty and slowly. Processing was too neglected during previous years. Numerous problems arose during the program's preparation, but life and the course of work put forward ever newer ones. That is why the participants in the meeting are far from optimistic in forecasts. Most of them doubt the reality of the goals set. Frankness is more useful than assumed cheerfulness and optimism for show. However, there is no reason not to believe in the capabilities of our industry and construction.

Every speaker touched upon equipment problems in one way or another. Existing equipment should undergo major repairs, literally while in operation, enterprises under construction should be equipped with fundamentally new systems, and machines and lines of the latest generations should be installed at them.

There is a way out here. We will cite an example. The Tashkent Meat Industry Association prepared a list of rapidly worn out parts for its equipment and concluded a contract with the neighboring scientific production association for their manufacture. In the republic's capital and other industrially developed cities there are many enterprises, which can really help processing sectors with spare parts and the manufacture of means of mechanization and equipment.

Such a task was set for them. And it should be accomplished, although in talks with managers of the Uzbek SSR Gosagroprom a fear was expressed that the industry would not cope with the task assigned to it.

Processing is considered a priority direction by the party. It will not be possible to drown its development in a sea of papers. Although attempts are made at this. Agrosnab of the USSR Gosagroprom constantly disrupts deliveries to the republic of equipment, which is not scarce at all: various types of cables, electric loaders, ventilators, scales, and welding equipment...

We will not present this list in its entirety—it takes up more than one volume. Everything that is allocated to Uzbek builders and enterprises is well known in agrosnab. And it should be delivered on schedule. This is the meaning of state discipline.

The third aspect of this problem is equipment not produced in the country. Processing industry workers set the following task for machine builders: To set up the output of installations for the evisceration of livestock carcasses, skin and vein removal, and pouring of sour cream into churns and cans... For now all this is done manually. There is a shortage of many types of automatic packaging machines.

Is our industry unable to develop the necessary equipment? After all, it is a shame to go begging to the "foreign uncle" each time and, moreover, to pay with a weighty currency.

What is produced must also be packaged. In the republic there is a chronic shortage of various containers and labels. The following task was set at the meeting: To increase the capacity of the Kuvasay Glass Container Plant to 100 million bottles annually and to solve the problem of construction of the polygraphic-cardboard combine during this five-year plan. This is absolutely necessary in connection with the sharp increase in the production of confectionery products.

Uzbekistan has not been cheated out of scientific thought. However, this is what is strange: the republic Academy of Sciences, sectorial institutes, and laboratories, for all practical purposes, do not help processing with anything. But they can do a great deal: To put into circulation new types of raw materials instead of imported ones, to help in the designing of equipment, to use nontraditional materials for its manufacture, and to help solve economic problems... The thought that a council for the processing of agricultural raw materials should be established under the academy comes to mind. This matter has come to a head.

But while Kh. Salomov, director of the Central Asian Institute of the Food Industry, was complaining, experiments were not permitted to be conducted at plants. What is this? A low prestige of science, or its complete lack of understanding in production? The republic Gosagroprom should look into this. And seriously. Such relations are abnormal. We live in an age of the scientific and technical revolution. The contribution of scientists should be much bigger. Now, as never before, fresh ideas and technical runs are needed. In the meantime Uzbek scientists offer too few of them.

Is the strategy of placement of processing enterprises correct? For Uzbekistan, where there are now 1 million unemployed people in rural areas, it is advantageous to develop food and other processing sectors of industry next to the raw material base. When one becomes acquainted with reconstruction and, especially, new construction plans, one notes that they are attached to big cities—Tashkent, Namangan, Dzhizak, and others. But under cost-accounting conditions and, moreover, having sufficient manpower, it is possible to build small canning plants and sausage and smoke shops directly on farms.

There is such experience. Rustam Akbarov, chairman of the Kolkhoz imeni Kalinin in Tashkent Oblast, told us that it was incorrect to build and reconstruct canning industry enterprises only in cities. During long hauls raw materials are always spoiled and conditions are created for misappropriation on the basis of an entry of stock changes under a wrong heading.

Storage facilities and processing shops should be placed as near as possible to the field and to hothouses, which is within the powers of the modern economy. On the Kolkhoz imeni Kalinin a vegetable sorting and processing line operates, a refrigerator for 500 tons was built, and two more for 1,500 tons are now being built. Three

firm stores were opened in Tashkent. The truth of management lies in the following: You grew something yourself, preserve, process, and sell it without middlemen...

The chairman is right. Up to one-fifth and here and there up to one-fourth of the green products are lost before they reach the counter or the processing line from a plantation. Is it not better to preserve most of them on the same kolkhoz or sovkhoz and to process and deliver them in the form of ready canned goods and marinades? Unfortunately, there are not even two dozen such plants in Uzbekistan. Storage facilities and refrigerators were not built on vegetable growing, even suburban, kolkhozes until recently. Basically, the sale of vegetables and fruits in stores also remains seasonal. The private trader dominates the market during wintertime, charging preposterous prices for his products.

Cost accounting gives wide scope to enterprise. This is so. However, it is easier for a camel to get through the eye of a needle than for a kolkhoz to acquire a small canning plant. People will have to overcome so many obstacles and to make rounds to so many offices of managers that they will lose heart. This is not said as a joke—they have already tried to do this.

These problems have not arisen at once. The hands of the republic's managers did not reach processing sectors. However, we will not recall the past. This will not help matters. Large funds and equipment have been allocated. And all this should be installed and mastered on schedule. Now it is necessary to clearly define the strategy of development, to ensure priority for processing not on paper, but in action, to involve not only the Gosagroprom, but also base sectors of industry, construction, and science, in the solution of this problem, to break the departmental barriers between them, and to make partners true kindred spirits. Only then will various products with an Uzbek mark appear on counters.

Food Storage Seminar in Tashkent

18240095 Moscow *SELSKAYA PRAVDA* in Russian
8 Jun 88 p 2

[Article by I. Akhmetov: "To Preserve Everything That Is Grown"]

[Text] It was noted at the 27th party congress that, along with the further development of agricultural production, a reduction in losses of products during harvesting, transportation, storage, and processing was a real source of replenishment of food resources. The base for the storage of fruit and vegetable products and potatoes is the most vulnerable link in this technological chain of the agrindustrial complex. It is obviously insufficient throughout the country and the Uzbek SSR. Furthermore, about one-half of the existing storage facilities do not meet modern requirements for technical equipment: They lack ventilation and cold supply systems and maneuverable transport facilities for loading and

unloading. With regard to the introduction of advanced technology of storage in a gas medium, only the first steps are taken in this direction.

The realization of party directives concerning the priority development of storage bases and the processing industry has become a matter of paramount importance for the republic. The Gosagroprom is the main manager of capital investments throughout the APK structure and it has placed the sector's development under the strictest control. The demand and requirements on construction and installation organizations have increased immeasurably. In 1987 Uzagropromstroy put into operation modern capacities for almost 30,000 tons—much more than the year before. And now plans have been made to build and commission storage facilities for 70,000 tons and more. Of course, it is not only a matter of quantitative growth, but also of the fact that the storage base is raised to a qualitatively new level. For example, the construction of a fruit storage facility for 5,000 tons with the creation of a gas medium in chambers is being completed in Samarkand Oblast.

With the introduction of cost accounting the industrial and technical level of construction and its organization have increased markedly. The rates of construction have risen more than 1.5-fold owing to the use of light metal structures delivered by the All-Union Soyuzteplitsa Association, structures of the Knudsen type, three-layer claydite-concrete structures, shallow prefabricated foundations, precast reinforced concrete shells, and canopy-skeleton structures. From the point of view of saving funds and speeding up and simplifying work, a 500-ton storage facility of the inflatable type built literally in a few hours is advantageous.

In brief, definite experience in accelerating the construction of such necessary projects has been accumulated in Uzbekistan. Therefore, the USSR Gosagroprom and the Uzbek SSR Gosagroprom held at the base of organizations and enterprises of the republic agroindustrial association an all-Union seminar on an exchange of experience in shortening the time of and lowering the expenditures on the construction of storage facilities for fruit and vegetable products and potatoes.

V. D. Danilenko, deputy chairman of the USSR Gosagroprom, opened it. He talked about the basic directions in the development of the storage base in the Union's APK system and the urgent tasks of planners and builders in the acceleration of work and selection of the optimum variant of storage facilities according to value indicators. On behalf of the Central Committee of the Communist Party of Uzbekistan and the republic government I. Kh. Dzhurabekov, first deputy chairman of the Uzbek SSR Council of Ministers, Gosagroprom chairman, warmly greeted those gathered. He briefly acquainted them with the course of increase in storage capacities through a new construction, reconstruction, and retooling of existing enterprises on the basis of a goal-oriented program.

Part of the time was assigned to familiarization with the organization of construction directly at projects. The participants in the seminar saw many instructive things in Nazarbek and Keles and on the Kolkhoz imeni K. Marx in Tashkent Oblast, where vegetable storage facilities of different capacities are being built with the use of advanced structures. At the Narimanov Pilot Reinforced Concrete Product Plant they became familiar with the process of manufacturing light shell panels with polystyrene concrete heating and with the operation of a heliopolygon.

In turn, specialists of the Uzbek SSR Gosagroprom and Uzagropromstroy heard with great interest the reports by their colleagues from Kazakhstan, Lithuania, other Union republics, and Stavropol Kray, who shared their experience in the utilization of potentials for increasing the effectiveness of capital investments.

The participants in the seminar reached the following conclusion: An extensive utilization of the achievements of scientific and technical progress is a reliable foundation for the establishment of a modern base for the storage of fruit and vegetable products.

POLICY, ORGANIZATION

Price Formation in Construction Sector Viewed
*18210016 Moscow IZVESTIYA AKADEMII NAUK
SSSR: SERIYA EKONOMICHESKAYA in Russian
No 3, May-Jun 88 pp 79-90*

[Article by V.M. Didkovskiy, A.N. Yezhov and R.S. Talesnik: "Problems of Restructuring Price-setting in Construction"]

[Text] The article substantiates the necessity for radical reform of the existing price system in construction. Specific proposals are advanced that touch, in particular, on the forming of contractual prices with a view to providing conditions for converting the branch to full economic accountability and self-financing.

The basic principals of the radical restructuring of economic control adopted by the 27th CPSU Congress calls for radical reform of price-setting. The new prices for construction output must reflect more consistently, on the one hand, the socially necessary costs for producing and realizing it, and, on the other, consumption properties, quality and effective demand. The problem of imparting to prices a cost-reduction orientation and an increased role in stimulating an acceleration of scientific and engineering progress and a saving of resources is especially severe. The new pricing system should create economically substantiated conditions for converting the branch to full economic accountability and self-financing.

The price system that operates in construction has been based on the prerequisites for extensive development of the economy. Price-setting has been reduced basically to determining the budget-estimated cost of the facilities being erected by the cost method.

The budget-estimated cost, which is computed at the completion stage of the design work—in the working documentation, has until recently fulfilled the role of price of construction output, particularly in settlements between the client and the contractor and in evaluation of the fixed capital put into operation. However, because of the isolation of construction-cost computations from actual conditions, particularly the makeup of the machinery used, transport schemes for delivering materials, and other factors, the use of budget estimates in organizing construction operations has been extremely limited. For planning and partially for financing purposes, the budget-estimated cost, which is determined at the initial stages, has been used. With a view to eliminating this contradiction and to increasing the construction participants' incentives to use more rational design solutions, beginning with 1987 the branch has been converting to the establishment of a contract price at the initial stages—in the design and also in the feasibility studies (TEO's) and engineering-economics computations (TER's).

However, the substantive part of the contract price still has not been properly substantiated economically. The existing mechanism for setting the contract price still does not fully consider the socially necessary expenditures for labor, the consumption properties of the construction output and its engineering-economics level and quality, as well as the time spent erecting the facilities.

Contract prices for construction at the first stage of introduction have been based mainly on computations of the budget-estimated cost in the working documentation. As the practice of setting contract prices at the "design" as well as at the TEO and TER stages expands, it is found that the quality with which design solutions and the existing budget-estimating standards base are worked out does not always ensure the authenticity of the contract price, because of the incompleteness of some initial data and inadequate definitiveness of solutions for specially built and complicated buildings and structures.

A prerequisite to converting construction to contract prices is the existence of a system of price lists for the consumption unit of construction output and other types of consolidated budget-estimating standards. Much work still remains to be done in this area. The price lists and the consolidated budget-estimating standards used for determining the contract price for building production-type facilities lags greatly behind the requirements of practice. The existing methodology for developing these standards needs improvement. It is not oriented to the use of computers, is extremely labor intensive, and therefore does not keep up with the design work.

Consolidated budget-estimating standards are established not on the basis of a generalization of indicators for an aggregation of previously built facilities but, as a rule, for a single representative design. So, in the general case, they do not reflect the socially necessary expenditures for labor that lie at the basis of cost. The design institutes do not have complete information about the inventory of the indicated standards that have been accumulated in other organizations. This leads to duplication in developing them.

Data on the budget-estimated cost for previously designed facilities are not being used adequately in consolidated budget-estimating standards. Catalogs of cost indicators for budget estimates issued by various organizations are not, as a rule, accessible to others.

Our country's first experience in developing standards of new economic content—prices for the consumption unit of construction output—has revealed the necessity for more complete consideration of a number of price-setting factors. Thus the price lists now prepared for the consumption unit of housing construction are not correlated with the sizes of apartments, as a result of which

the incentive to erect housing primarily with large apartments is preserved. The price of construction and installing work per unit of capacity of enterprises and production facilities is correlated poorly with the products mix and quality of output produced at the designing enterprises, the level of cooperation of industrial production, and the quality of the raw material used. These methodological shortfalls deter the dissemination of price lists for the consumption unit of construction output for facilities of basic production purpose. The price lists that have been developed still do not consider change in price for construction where design solutions have been used that reduce operating expenditures during operation of the enterprises, buildings and structures.

The budget-estimated cost of construction, which is determined in the working documentation in accordance with previously designed and constructed facilities, plus the existing system of element-type budget-estimated standards used for computing it, form the initial base for compiling price lists and consolidated budget-estimating standards. Experience has shown deficiencies in methods for forming and using element-type budget-estimated standards when computing prices for materials, costs for operating machinery, indirect, ceiling and other expenditures, and planned accumulations.

The main items in the budget-estimated cost of construction and installing operations are expenditures for materials, the share of which has proved to be predominant (more than 62 percent). Expenditures for materials are at present determined on the basis of conditions for delivering them, averaged for the region, although these conditions are different for each construction project.

Use of the costing sub-head, "Budget-Estimated Price for Materials (and Articles and Constructional Structure)," which includes expenditures for acquiring and delivering them to the construction project, has led to the establishment of a vast number of standards differentiated for more than 1,200 pricing regions. The differentiation of price levels adopted for construction is without precedent in the practice of planned price-setting.

Expenditures for the delivery of materials, the operation of machinery, and the basic wage fund, the sum of which has been set as 100 percent, average a ratio of 46:20:34 in the branch. The averaging of such high expenditures for the delivery of materials for a territorial region, subregion, oblast, or zone and the use of unchanged budget-estimated costs over a lengthy period lead to considerable error, which is, moreover, constant in value and sign for each construction project. As a result, the budget-estimated cost of all the buildings and structures for one area or another proves to be either understated or overstated. For example, if for two construction projects the distances for delivering all materials from the railroad yard of destination are 6 and 25 km, then the budget-estimated cost for the second construction projects, because of averaging of costs for delivering

materials, is reduced in comparison with the first by 3 percent. The economic results for the contracting activity turn out to be a function of the distance between the construction project and the supplier of the materials, although the client is the one who designates the site for construction.

The method adopted for setting norms for the operation of machinery within element-type budget-estimated norms for constructional structure and for operations (ESN) does not conform with the practice of their use at construction projects. Thus, at facilities at which ordinarily one or two varieties of cranes are used, the existing norms call for 4 to 10 varieties. In so doing, the operating time of the equipment and the machine hours are indicated only for the various types of operations (earthmoving and erecting steel, concrete, reinforced-concrete and certain other types of structure). For most other operations, only expenditures in rubles for the so-called "other machines) are cited.

The inclusion in unit pricing for construction work of expenditures for the basic wage for blue-collar workers, machinery operation, and materials (by budget-estimated price), which are diverse in their economic content, has led to the forming of a pricing system that is ramified and difficult to administer (more than 25,000 unified regional unit pricings for the 12 territorial regions and 39 subregions and, on the average, for 10,000 local unit pricings for 1,200 price regions). Because of the complexity of development, the pricings have not been reviewed for a long time and they have gradually deviated from the actual conditions of management.

An important deficiency of the existing price-setting practice in construction is unjustified dependence on computations for overhead expenditures, planned accumulations, the higher cost of winter operations, the cost of temporary buildings and structures, and the so-called other costs on expenditures for materials.

This has caused an unjustified growth in the budget-estimated cost, the appearance of a "false cost," and a distortion of computations of the economic effectiveness of measures for industrializing construction and saving material resources.

While in the 1930's to 1950's, because of the low level of the branch's productive forces and the absence of a wide choice of ways for constructing facilities, the existing system for setting norms did not permit a substantial increase in the material-intensiveness of construction and did not impede progress being made toward industrialization, in later decades builders began to increase their "incomes" easily, replacing inexpensive materials and constructional structure with more expensive structure during the coordination of design and budget-estimating documentation.

Often it became possible to persuade the designers and the client to call for the technically maximum possible use of more expensive structure, for example, of prefabricated structure, including structure transported over great distances, or of expensive finishing and other types of materials. In so doing, the adoption at the design stage of decisions to use inexpensive but effective materials, including local materials, was under a singular economic ban, since it reduced the output per worker and income for construction work.

Under the influence of these factors for four decades in construction, contradictions in the interests of economic desirability and of practice have arisen. Thus, for instance, in order to eliminate soil subsidence, instead of compacting and other well-known methods, expensive pile footings have been used under buildings and operating equipment. Fill for pockets and recesses is done not with local soil and compacting but with expensive sand-and-gravel mix. Unjustifiable substitution of structure made of monolithic reinforced concrete by more expensive structure made of prefabricated reinforced concrete for footings, basement walls, and large solid pieces increases construction costs by an average of 200 million rubles annually. A listing of such impermissible cases could be lengthened and widened by including finishing and other types of operations.

The profitability of construction during 1986 was 16.2 percent of the budget-estimated costs for doing construction and installing work, according to reporting data. At the same time, the profitability of a specific construction organization differs greatly from the average value, and 13.1 percent of these organizations are unprofitable. A high level of profitability does not reflect fully the actual state of affairs in construction economics and, aside from distortions, it is explained by an incorrect choice of the basis for computing overhead expenditures, increased winter costs, planned accumulations, and other expenditures that are set on a percentage basis, and, as a consequence, by the existence in the branch of "false cost," and also by distortion in determining the cost of materials by average budget-estimated price.

The new management conditions presuppose the use in price-setting of economic categories that reflect the branch's modern infrastructure and planned investment policy, the filling of existing categories with new socio-economic content, the breaking of stereotypes, the development of modern economic thought, and the psychology of perestroika.

Prices for construction output must consider: changes in norms and pay schedules; the results of planned review of wholesale prices for industrial output delivered through USSR Gosstab organs, and the introduction of a system for the free sale of resources; planned changes in rates for hauling construction freight; the introduction into operation of new norms for amortization for renovation and updating of the economy's fixed capital; and improvement of the organizational structure for controlling the construction complex.

Based on this, the main tasks for reforming price-setting in construction can be enumerated: the creation of a unified integral system for the development, establishment and use of prices for construction output; the elimination of differences in price levels for construction facilities created by state contracting organizations and by the forces of developers who use the in-house method; the generation of unified methodological principles for the computation, statistical reporting, distribution and cost analysis of expenditures for work done, the application of prices to local building materials and those brought in, the setting of norms, the distribution of transport expenditures that are included in the cost of the facilities being built, etc.; reorientation of the currently adopted evaluations of expenditures for individual types of construction and installing operations to computation thereof in accordance with the final output of construction—enterprises, buildings and structures ready for operation and supplied with equipment, furniture, implements, tools and auxiliary installations; the introduction of a qualitatively new system, unlike presently existing ones, of contract prices which are oriented to the use of both incentive-type markups and economic penalties, to the elimination of monopolism in design and construction work, and to the development of competitiveness of design and contracting organizations and the suppliers of industrial output for construction; the introduction into practice, based on a generalizing of world experience, of a system of contract prices for erecting facilities in accordance with international agreements, and also with the possible participation of domestic construction organizations and foreign firms in the construction of facilities under contracts in third countries; and evaluation of the suitability or unsuitability of proposals by foreign companies that intend to take part in the construction of specific objects within our country; the identification of expenditures not previously considered in prices for construction output (payment for labor resources, land, water and so on); the creation of a mechanism that can exclude the influence of materials intensiveness not justified today on the level of planned profit, overhead expenses, and a number of other expenditures that are determined as a percent of the direct expenditures of construction organizations; and the development of mutually related systems of standards and automated banks of data about facilities that have been designed and constructed in order to make an authentic determination, based thereon, of contract prices for the erection of an enterprise or a building as a whole, and also for the basic types of work.

In order that construction prices may meet the demands of the new economic mechanism, it is necessary to abandon the existing system for determining the budget-estimated cost of construction and to convert everywhere to the new system of budget-estimated and contract prices for the final construction product (an enterprise, building or structure) and of budget-estimated and contract prices for the types of work (see the scheme).

Scheme for Setting Contract Prices for the Construction of an Enterprise, a Building or Structure and Contract Prices by Type of Work

Stage preceding development of working papers	Budget-estimated price for construction of enterprises, buildings and structures, relative to activity of contracting organizations (including site preparation) +	Markups for improvement of consumer properties of construction output and acceleration of introduction of facilities into operation and so on =	Contract price for construction of an enterprise, building or structure (including site preparation)
Development of working documentation	Budget-estimated expenditures by type of work +	Standard profit in percent of budget estimated expenditures on basic wage and operation of machinery =	Budget-estimated price for type of work
Organization of execution of construction and installing	Budget-estimated price for type of work (as a reference point for the general contractor) +	Evaluation of factors linked with executing operations with required quality, within established period taking into account limitations of capacity of construction and installing organizations, and so on =	Contract prices by type of work for delivery of material-technical resources

In the initial stage of design work (in the design, the TEO or the TER), a consolidated computation of the budget-estimated price for the construction of an enterprise, a building or a structure should be developed (instead of the consolidated budget-estimated computation of the budget-estimated cost now compiled).

The source data for such a computation are the basic functional and operational parameters of the enterprise, building or structure being designed; information about the geographical, natural, economic, organizational and other conditions for construction; and the standards for determining budget-estimated prices and cost indicators for enterprises and facilities previously designed and built.

The budget-estimated price for an enterprise, building or structure is formed by the budget-estimated price for the various facilities and the budget-estimated operations and expenditures common to all facilities. The budget-estimated price of the facilities should be computed on the basis of price lists per unit of construction output and other consolidated budget-estimated standards or indicators.

The budget-estimated operations and expenditures common for all facilities, based on the conditions of the given construction, should be indicated by area as follows:

general construction work and expenditures that are executed by construction organizations (site preparation, the erection of temporary buildings and structures, expenditures occasioned by local conditions for pay and for obtaining material resources, supplementary payments for wages and benefits, and so on);

concomitant expenditures of the client and other organizations (for the diversion of land sections; upkeep of the management of the enterprise being built, designers' surveillance, and survey and design operations; and payment for the land and water, and so on);

a reserves of funds for unforeseen operations and expenditures; and

shared participation.

If the data does not suffice for determining the design's budget-estimated cost, for example for basically new production facilities that have no counterparts, then a preliminary portion is singled out for the price—an approximation, which later is refined in the working documentation.

The contract price for an enterprise, building or structure, should be determined on the basis of the budget-estimated price. Included are the budget-estimated price for the facilities to be built and general construction operations and expenditures, as well as a reserve of funds for unforeseen operations and expenditures; and markups which stimulate improvement of the product's consumption properties and improvement in construction-work quality, which consider shortened construction time and other price-setting factors.

For a basically new construction product (for example, sealed buildings, departments with modularized utilities and services provisioning, and isothermal tanks), and also where design solutions are introduced which reduce the national economy's total expenditures for the producing industrial output and for operating buildings and

structures, the amount of markups to the budget-estimated price should include compensation for the contractor's additional expenditures and the part of the additional profit that is established in accordance with the agreement of the client and the contractor (but not less than 50 percent) from the economic benefit expected in so doing. Markups are established for the period prior to large-scale use of innovations in construction practice.

It is desirable to establish markups to the budget-estimated price for an acceleration coordinated with the client for introducing facilities into operation, based on the methodical approach that is realized in the current Statute on Bonus Awarding for Acceleration of the Introduction of Facilities into Operation. On the other hand, in case the contractor uses (at his insistence) obsolete designs for buildings and structures, the budget-estimated price should be reduced by an amount up to 50 percent of the standard profit for construction organizations. Economic sanctions should be applied against the guilty party for nonfulfillment of the terms of a contractual agreement that were considered during substantiation of the contract price.

In order to organize construction operations and to regulate economically accountable mutual relations under the new management conditions at completion of the design stage—**budget-estimated prices for the types of work** should be determined in the working documentation.

These prices should be computed in the budget-estimates on the basis of the amounts of work established by the working drawings and in accordance with the solutions adopted in the design for organizing construction and in the work plans. In so doing, a concrete scheme for supporting construction with materials and the mix of the construction machinery used should be worked out.

Budget-estimated prices for the types of work are for the general contractor a reference point for establishing **contract prices for the types of work** that are adopted in the subcontracting contracts that are concluded between the general contractor and the subcontractors, the suppliers of materials, and transport and other organizations. Contract prices for the types of work should include budget-estimated prices for types of work and markups that will stimulate improvement of the consumption properties of the corresponding types or sets of operations and execution of the operations with the required quality within the periods set by the general contractor, and that will consider other price-setting factors, as well as discounts and sanctions similar to those considered in the contract price for the final construction product.

In the long term, as construction design work is integrated with construction operations, proposals about prices for the construction of enterprises, buildings and structures and for the types of work should be prepared by the contractor (not the client, as is done now). The

client's main task at the stage of setting the contract price for an enterprise, building or structure (or the general contractor's, at the stage of setting contracts prices for the types of work) should be consultant review of proposals presented for contract prices and economic optimization of their level by holding competitions for proposals in regard to price and quality of the construction output and to the period for executing the operations.

Budget-estimated prices for the types of work are formed from budget-estimated expenditures that have been determined by the standard method, with the addition of standard profit. A system of budget-estimating standards is being created for determining them.

Budget-estimated expenditures should be established by **technologically similar type of operation**, carried out by workers of one vocational group or another with the use of a definite mix of machines and materials, articles, and constructional structure. This relates, for example, to earthmoving work, the installation of concrete or reinforced-concrete monolithic structure, prefabricated structure, structure made of brick, steel or wood, and so on.

The grouping of budget-estimated expenditures by cost-analysis categories should reflect the prevailing division of labor in construction and should be founded on cost-reduction principles, with maximum approximation of estimated expenditures to the economic elements that represent past and live labor. For this purpose, the following should be called for:

separate determination of expenditures for acquiring materials and for delivering them to each construction project, in order to increase their authenticity and to reduce the number of budget-estimated standards;

the isolation of expenditures for operation of the chief construction equipment from other expenditures and determination thereof in accordance with the work plan;

establishment within budget-estimated expenditures of the overall budget-estimated wage for determining, on the basis thereof, the planned wage fund, and for use as a basis for determining a number of budget-estimated expenditures, as well as expenditures for labor in man-hours; and

establishment of overhead costs by type of work at the socially necessary level that is unified for construction work, with the exception of the influence of materials intensiveness on their amount.

With separate determination of expenditures for buying materials at wholesale prices and for delivering them to each construction project instead of representing them totally in budget-estimated prices and unit pricings, first, their authenticity is increased, and second, the number of budget-estimated norms is cut by two orders, since the

necessity for collections of budget-estimated prices for materials and the differentiation of unit pricings by zone in accordance with the prices for local materials is done away with.

In order to determine and to compute expenditures for delivering materials, it is desirable to introduce a cost-analysis item that includes expenditures for haulage, loading and unloading, and the markups of supply and marketing organizations and the markups for their procurement and storage costs, with separation of budget-estimated pay. Computations should be carried out for a cluster of concentrated construction or for a construction project, based on the economically substantiated conditions that prevail in the region for providing materials for all construction projects. In regard to local materials, the corresponding data are contained in documents that are approved by interagency commissions for validating budget-estimated prices.

Being considered is a substantial consolidation of types of freight in order to determine transport expenditures for a limited number of line items—for no more than 50, as a rule. In singling out technologically similar types of work in the budget estimate, one can determine in consolidated fashion the amount and weight of the materials and estimate expenditures for delivery in accordance therewith.

In order to realize the above-mentioned isolating of costs for operating the chief machinery from other expenditures and to figure them in accordance with the work plan, technologically similar types of work must be adopted as the target of norm-setting for the operation of construction machinery.

At first, the norms for operating machinery can be developed on the basis of existing element-type budget-estimating norms, with recomputation of the appropriate budget-estimated expenditures per unit of measurement that is established for technologically similar types of work. Thanks to the establishment of norms for consolidated yardsticks, they can be verified in practice by technical standards-setting methods, using the necessary refinements.

With the isolation from element-type budget-estimating norms, changes that occur in the equipment pool can be reflected in the norms for operating machinery without resorting to recompilation of the norms and cost estimates for construction and installing operations, a fact that is of great significance in the modern era of intensive development of the branch and of the adopted policy of equipping the branch with the most advanced equipment. For cranes and other principal machinery (equipment for placing concrete, laying pipe, moving earth, and so on), such norms should be used in the budget estimates in accordance with the work plan, while

the mix of cranes should be established by considering the three-dimensional layout and constructional solution for each facility and the conditions for using cranes at a given construction project.

Expenditures for acquiring materials and for delivering them (taking wages into account) and for operating machinery (again taking wages into account) and the basic wage for blue-collar workers should be reflected in budget-estimated direct expenditures. The remaining budget-estimated expenditures, which are determined indirectly, should be computed on the level is that unified for the construction branch in accordance with the norms, which have been established as a percent of the budget-estimated direct costs for the basic wage and for the operation of machinery or as a percent of the budget-estimated expenditures for wages.

The corresponding expenditures for labor in man-hours should be figured in accordance with the budget-estimated wage by multiplying it by the coefficient of expenditures for labor, which is the ratio of the standard expenditures for labor to the corresponding wage.

Use of the indicated indicators will enable data that are most important for production planning to be determined and the achieved level of norm fulfillment and progressive shifts in organization and technology for construction operations to be considered.

The basic wage for blue-collar workers in the prices of one base area and the expenditures for acquiring auxiliary material at the wholesale price that is average (for the territorial region or subregion) should be included in the unit pricings for construction work. Expenditures for acquiring basic materials (prefabricated concrete, reinforced-concrete, brick, metal and wood structure, monolithic concrete, reinforcements, pipe and certain other items), the share of which totals more than 70 percent of the expenditures for all materials, will be determined in separate budget estimates at wholesale prices. Given this structure of cost estimates, the number of regional (or zonal) collections of unit pricings is reduced 10-fold.

Budget-estimated norms and pricings for operation of the leading construction machinery should be developed for technologically similar types of operations at a level that is uniform for the branch. The corresponding expenditures will be determined in budget estimates in accordance with the work plan.

In order to determine budget-estimated expenditures for delivering materials and equipment, cost estimates should be developed for each construction project in terms of a consolidated mix of freight.

Norms for expenditures that are established indirectly should be computed to take the prevailing level into account. Thus budget-estimated overhead expenditures in the construction complex for the first half of 1987 was 67 percent of the budget-estimated direct expenditures

for the basic wage and for the operation of construction equipment, and the actual amount was 69 percent of the same base. After considering the influence of the impending change in price levels on resources and refinement of the composition of expenditures relevant to 1991 for overhead expenditures, the norm for overhead costs will be established on the above-indicated base, eliminating the unjustified influence of materials intensiveness on the amount thereof.

The standards for accounting for other expenditures in the budget-estimated price (for hauling workers, use of the rotating-crews method, organized recruiting, one-time awards for long service, additional time off, allowances for continuous length of service, and others) should also be recomputed on the new base with a view to excluding unjustified incentives for the contractor to increase materials intensiveness of the construction product.

Standard profit, which is included in the budget-estimated price for the types of work, should be determined as a percentage of the basic wage and of expenditures for machinery operation.

The norm for profit should be determined as a function of the standard of profitability established for the branch for producer goods and for the planned cost of producer goods of the branch for 1991.

In its turn, the indicated standard of profitability is substantiated on the basis of the amount of standard profit for the branch, computed on the assumption that normally operating organizations (state enterprises) are created with equal potential for converting to full economic accountability and self-financing. In so doing, the branch's standard profit is determined in accordance with unified standards that are relevant to the corresponding plan data for 1991, and it includes:

the fund for developing production, science and technology as percentages of amortization for renovation;

the material incentives fund in percents of the actual fund for basic and additional wages for all categories of workers;

the fund for social development in accordance with the norm per employee;

payment for use of capital in percents of the cost of fixed industrial- production capital and standardized working capital;

deductions for national needs, which include expenditures for defense, science and administration in accordance with the norm per employee; and

payment for labor resources, which covers the state's costs for training the work force and social, cultural, municipal and domestic services for workers and members of their families in accordance with the norm per employee.

Local budget estimates and a consolidation of the amounts and the budget estimated prices should be compiled in the working documentation in order to determine budget-estimated prices for the types of work. The local budget estimate should define the expenditures for acquiring materials and the basic wage for blue-collar workers, arranged by technologically similar types of work.

The summary data for technologically similar types of work should be indicated in the summary of the amounts and budget-estimated prices, where expenditures for the operation of construction machinery and transport expenditures are computed on the basis of them, and expenditures for labor and the budget-estimated wage, as well as indicators for expenditures per unit of measurement for technologically similar types of operation and the percent ratio of expenditures are determined. Because of the carryover of a number of computations from the first document to the second, the total amount of the budget estimate for construction work is reduced.

The summary of amounts and budget-estimated prices should be compiled in an automated procedure based on these same data, according to which the automated output of local budget estimates is made, using AVS-3YeS (automated output of 3YeS budget estimates), Svod-2, Smeta—GPTS and other systems. The consolidated indicators cited in the summary are designed for monitoring correctness of the determination of budget-estimated expenditures in the working documentation, the development of consolidated standards, and the determination of budget-estimated prices for similar facilities at the initial stages of design.

In considering the breadth and the importance of the tasks that are performed on the basis of this document, and, at the same time, the large volume of it (one or two pages) and the possibility of obtaining it in an automated procedure, practically without additional expenditures of funds or of time, the summary of the amounts and budget-estimated prices should be introduced as a mandatory budget-estimating document.

Territorial value coefficients, which reflect the level of budget-estimated expenditures in various regions in relation to the basic one (Moscow Oblast) and are intended for use during pricing operations and recomputations, should be developed for technologically similar types of operations, which serve as a modulus for expressing and comparing the amounts and composition of the work.

The adjustment of budget-estimated expenditures for facilities to a single price level is a prerequisite to establishing economically substantiated relationships of budget-estimated expenditures on facilities and to averaging them for a number of like-type facilities (or similar components) and for the computation of revisions for change of consumption properties when determining the budget-estimated price.

In converting to the new level of budget-estimated norms and prices for technologically similar types of work, indices of change of budget-estimated expenditures in the base region should be developed. Recomputation of the carryover residues of the budget-estimated price to the new level will be performed by means of the indices and the territorial value coefficients.

The new system for consolidated budget-estimated standards should provide authenticity in determining budget-estimated prices for enterprises, buildings and structures at the initial stage of design. The consolidated standards are generalized (averaged) cost indicators for the main body of previously designed and constructed facilities of a given type or of portions thereof which have the required consumer cost, and they also are generalized data for total budget-estimated operations and expenditures at construction projects.

Cost indicators which are subject to generalization should be adjusted to a single base level by means of the regional value coefficients and indices. The indicated coefficients and indices will also serve for conversion of consolidated standards to the level of prices of the required region and the new level of budget-estimated norms and prices.

The consolidated standards for determining budget-estimated prices should be developed for facilities (including expenditures for equipping buildings with equipment, furniture, implements, tools and auxiliary arrangements); construction and installing operations for the facility as a whole or for a portion of it; technologically similar types of work; and total budget-estimated operations and expenditures for the construction project.

The following are recommended as yardsticks for consolidated standards: for production facilities—the consumer's unit of the output of the capital construction (annual productivity in terms of the production of output of a specific products mix and specific quality under concrete conditions for cooperation in production, or in terms of net output); for housing and nonindustrial construction facilities—the unit of construction output coordinated with the types and sizes of the apartments, the level of operating expenditures for heating and overhaul of the building, and other consumption characteristics; for construction and installing operations by facility as a whole—units of the object's basic constructional characteristics (cubic meters of the building or

structure, square meters of total space, and so on); for technologically similar types of work—units which measure corresponding consolidated types of work (cubic meters, tons, and so on).

Standards of new economic content—price lists for the consumption unit of construction output which are intended for use independently of the technological, three-dimensional layout and construction solutions specifically adopted during design and construction—should become the most important of the enumerated types of standards for determining the budget-estimated price of the enterprise, building or structure, a circumstance that creates a general motivation for accelerating the replacement of uneconomical types of standard designs and for applying solutions that reduce the price of construction.

Experience in developing such price lists in 1987 indicated that, with a view to expanding the area of their use at facilities for basic production purposes, the methodology for formulating them must be improved in the areas of:

a more complete consideration in the basic price and revisions thereto of the qualitative characteristics of the output being produced at the enterprise being designed and of the production conditions for functioning of the production facilities (the products mix, the level of production cooperation, and the quality of the raw material and other basic resources); and

establishment of a price for the consumer unit by production facility not only for construction and installing operations but also for construction as a whole, including cost of the equipment.

Along with price lists for the consumer unit of construction output for buildings and structures for production purposes for whose dimensions and functional parameters practically any values over a broad range can be adopted, parametric models of prices for construction operations should be developed as functions of the length, width, height, useful loading and other leading functional parameters. Existing experience in automating the development and use of consolidated budget-estimating indicators at early design stages must be disseminated to other branches of the economy.

The basic directions for improving price lists for the consumer unit developed in Union republics, krays and oblasts in 1987 for facilities for housing and municipal services purposes are:

correlation of the price with the types and sizes of the apartments, in order to avoid creating a direct incentive for the contractor to build only large apartments;

formulation of the price on the basis of the basic pattern of constructional solutions, in order to create on the part of the contractor an economic-accountability interest in converting to a more progressive pattern for them;

averaging of prices for 1 m² of total apartment space in an apartment house with a certain number of stories not only trustwide for a construction and installing trust, a DSK [housing-construction combine] or a PSO [design and construction association], but also administration-wide for a main regional construction administration (or a production association) as they convert to economic accountability;

establishment of a price for the underground portion of apartment houses in the price list as a function of the engineering-geology conditions and not of the type of footing chosen;

singling out the price in the table of distribution by part of the building, except for the underground portion and the first floor, taking into consideration the growing trend toward placing social, cultural and domestic-services facilities on the first floors of apartment houses;

development and inclusion in price lists of markups to the price which compensate for the contractor's additional expenditures and which give an incentive for introducing design solutions that reduce expenditures for the heating and overhaul costs of buildings; and

exclusion from the basic price of costs for the transporting of prefabricated reinforced concrete from large-panel housing-construction plants (KPD's) to the construction site and the establishment of an average standard for transportation costs per 1 ton-kilometer of freight, which will enable the number of price lists to be reduced 10-fold and the actual distance of the building being erected from the plants to be considered in the budget-estimated price.

An automated information system for indicators of the actual (or final) budget-estimated cost (or budget-estimated prices) (AIS FSS) should be established as an information base for responsive and reliable determination of the budget-estimated price for an enterprise, building or structure. It concentrates: indicators of amounts and budget-estimated expenditures according to the working documentation, which is produced by all design organizations, and also the indicators of actual budget-estimated expenditures established at the moment of the ending of the construction and the introduction of facilities into operation; indicators of baseline budget-estimated expenditures; general budget-estimating operations and expenditures at construction projects (by purpose and type); regional value coefficients and indexes; and consolidated standards for determining budget-estimated prices.

The system should permit the following basic tasks to be solved in an automated procedure: the collection and output of data for determining the budget-estimated price of a construction product in a design, as well as in a TEO and TER; conversion of cost indicators to the level of prices of the base region and of any required

region, and also to the new level of the budget-estimated norms and prices; and the development of consolidated standards for determining budget-estimated prices.

Realization of the principles of the new concept of price-setting for construction (particularly a more complete reflection in price of the socially necessary expenditures for labor and the consideration in price of the payments for labor resources, land, and water), improvement of methods for computing profit norms and markups for improving the consumption properties of the construction output and for reducing construction time, will require, for expanding the system of agreed (contractual and other types) prices in the utilization sphere, the urgent execution of a set of theoretical and methodological developments, substantiation of the corresponding proposals, and experimental confirmation thereof in the example of specific facilities for construction.

All the areas for improving price-setting in construction that have been set forth are an indispensable condition for functioning of the new economic mechanism and, therefore, should be implemented during conversion to the new level of prices in construction.

The new concept for price-setting in construction will enable conversion to the new budget-estimating norms and prices to be executed within the prescribed periods and at less cost than by use of the traditional method. Reduction of expenditures on the development of budget-estimated standards will be achieved by:

dispensing with the development of budget-estimated prices for materials (for approximately 10,000 line items for 1,200 price zones);

simplification of the development of unit pricing for construction operations as a result of the exclusion therefrom of expenditures for basic materials and for operation of the chief machinery and because of a 10-fold reduction in the number of unit pricings, thanks to a reduction in the number of price regions; and

simplification of the development of price lists for the consumption unit of construction output for facilities for housing and nonindustrial purposes by excluding from the basic price expenditures for transporting prefabricated reinforced concrete and other basic materials and by reducing price zones 10-fold because of this exclusion.

A first-priority measure in the matter of creating the information base for determining contract prices should be universal compilation of a separate budget estimate for consolidation of the amounts and budget-estimated prices and the creation of a branch-level automated information system of indicators of actual (or final) budget-estimated cost (or budget-estimated prices).

COPYRIGHT: Izdatelstvo "Nauka," "Izvestiya AN SSSR, seriya ekonomicheskaya," 1988

POLICY, ORGANIZATION

Restructuring in Garment Industry Examined

18270003 Moscow TEKSTILNAYA
PROMYSHLENNOST in Russian No 8 Aug 88 pp 3-8

[Article by A.V. Fedorova, USSR Ministry of Light Industry, Moscow: "Early Results of Perestroika in Light Industry" under the "Restructuring in Light Industry" heading]

[Text] In compliance with the CPSU Central Committee and USSR Council of Ministers' decree "On Improving Planning and Economic Stimulus and Perfecting the Management of Consumer Goods Production in Light Industry," the USSR Ministry of Light Industry's system has implemented concrete measures to improve the development and production of new goods; the process of designing is being restructured, which includes measures taken to forecast demand, develop new types of products, market products through brand-name outlets on a trial basis, analyze existing demand and create demand for new products and, finally, quickly replace slow-selling goods with those for which there is greater demand. In this respect, the strengthening of the industrial base of the Light Industry All-Union Central Fashion Administration, as well as that of design organizations of union republics has been important. In 1987, 62 fashion design organizations set up new experimental production shops or enlarged existing ones. As a result, the number of employees at fashion design firms, including those at experimental shops, has risen 3 times compared to 1986, and design and development of new products for mass production, as well as of those to be manufactured by fashion design firms and marketed through the sector's brand-name network, are being conducted more competently.

In the knitwear industry, there are 8 fashion design firms and 5 shops functioning as fashion design firms for garment industry products.

Experimental shops of these fashion design firms (which have 4,760 employees) produced R154.9 million of output in 1987, and R44.8 million in the first quarter of 1988.

Highly fashionable goods produced by all fashion design firms of the USSR Ministry of Light Industry comprised 64.3 percent of their total output in the first quarter of 1988, including only 39.4 percent in the knitwear industry. The low percentages are due to the fact that at some fashion design firms these products make up less than the required 80 percent of total output. These firms include the ones in Krasnoyarsk (58.8 percent), Minsk (29.2 percent) and Tbilisi (27 percent), as well as Yerevan's "Erebuni" (40.7 percent).

Brand-name outlets owned by fashion design firms account for 61 percent of the total, including only 38 percent in knitwear [as stated in the original]. Goods are being sent by fashion design firms to factories for mass production without first being tested at brand-name outlets.

In 1988, all union-level fashion design firms will establish their own brand-name outlets.

Under self-financing, all of the industry's enterprises have the right to design new lines of products independently, which has reduced the time from conception to distribution to 1 year. Enterprises have received broader powers to approve new designs and set prices on highly fashionable goods as well as surcharges on new products marked "N".

The function of artistic and technical councils has changed significantly. Earlier, all newly developed products had to be approved by union republics' ministries and the USSR Ministry of Light Industry, which caused great delays, expenditures on business travel and, most important, delays in production of newly developed goods that lasted for months. Starting in 1987, this work have been done by the enterprises themselves. Ministries' artistic and technical councils judge only basic products (mainly at the request of retail trade entities). The inclusion in the councils of representatives from retail trade who study consumer needs and demands has greatly simplified the process of approving new fabrics, textiles and finished goods. Specialists from fashion design firms also participate in many artistic and technical councils. For instance, conditions have been created for establishing long-term business relationships among enterprises, designers and retail trade organizations. This helps more fully satisfy consumer demand for these products. Quick approval of samples, technical specifications and prices helped cut the time required for new fashionable products to reach the market: in 1987, it shrank thrice as much as in 1986 [as stated]. However, as mentioned above, the share of such products remains insufficient.

The work of designers in the industry has intensified and their role in the production of garments has increased. Currently, light industry employs over 10,000 such professionals. Artistic trademarks, introduced in 1987, have been awarded to 35 designers in the industry.

Designers' workshops are held regularly at creative retreats of the USSR Artists' Union. Exhibitions, competitions and fashion shows for consumers have become more frequent. Last year, the USSR Ministry of Light Industry organized the first All-Union Fashion Festival in Moscow, featuring a large number of designs by collectives as well as individual designers. At the same time, fashion days were held in Tallinn, featuring designs by artists from the Baltic republics, Belorussia and

Leningrad. These events, which will be staged regularly, have uncovered a great creative potential in the industry and have intensified the work of developing fashionable product lines.

The USSR Ministry of Light Industry has drafted a program for 1988-89 to improve the creative activity of designers as well as information about products and advertising. It calls for broader information to be available to professionals at enterprises and organizations and for encouraging them to participate in domestic and international shows, conferences and activities of international professional associations and firms, such as "Intercolor" and others.

The USSR Ministry of Light Industry has developed proposals to improve the work of conferences of light industry professionals from Cema countries on preparing designer collections and establishing creative partnerships for designers and model makers. Such groups of professionals from Hungary, Cuba and the USSR will start functioning as early as in 1988. Two-way contacts between design organizations and enterprises of Comecon member-states are increasing.

For the 12th 5-yr plan, the USSR Ministry of Light Industry has drafted and begun implementing a general plan to create completely new and improved lines of garments, knitwear and leather accessories and shoes, as well as of fabrics and materials for their production.

To make garments, including ones manufactured under licenses, using domestic fabrics, trimmings, linings, secondary materials, threads and accessories, research institutes have developed a number of materials (to be exact, 21 materials that exist in trial runs and the same number in individual samples) that meet the requirements and conditions of licensing agreements as far as their qualitative, technical and aesthetic characteristics are concerned.

Enterprises have started to produce six types of knitted garments for sports and recreation using entirely new types of knitted fabrics with various types of trimmings, including napping, glossing and pressing; children's and junior's garments made of fabrics produced by circular knitting machines with velvet-like trimmings; knitted outerwear using coarse wool; high-quality fashionable undergarments, etc.

The quality and selection of goods produced by a number of union republics remains at a low level. For instance, while in the first quarter of 1988 the average share of high-quality products (those classified as "N" [new] or "OM" [highly fashionable]) was 31.6 percent in the USSR Ministry of Light Industry's system as a whole, in the UzSSR it was 20.2 percent, in the KaSSR 27.4 percent, in the GrSSR 19.7 percent, in the AzSSR 12 percent and in the TuSSR 10.4 percent.

The share of highly fashionable goods sold on a contract price basis has been growing too slowly in the ministry of light industry's systems of the UzSSR (where it accounts for 3.6 percent), the AzSSR (3.9 percent), the KiSSR (3.1 percent), the TaSSR (4.6 percent) and TuSSR (3.4 percent). The USSR Ministry of Light Industry's average is 6.6 percent. Moreover, the share of highly fashionable fabrics made from all types of fibers is only half that of garments. Garment industry enterprises are often reduced to manufacturing new designs from an existing selection of fabrics, only dyed a different color or with a different design, which was revealed at the industry's wholesale fair.

In 1987, state quality control commissions began functioning at 63 enterprises. This has improved the quality of output and the accuracy of technical and product quality specifications, and helped develop long-term plans to raise the technological level of industrial complexes (enterprises).

However, money and labor spent on numerous inspections of output are often wasted, since goods that meet the strictest quality requirements often languish on warehouse shelves anyway.

The existing multi-layer control system designed to improve the quality and broaden the selection of light industry goods, in addition to the state control system, have not substantively improved the situation in the sector. After product quality has been checked by technical control departments at enterprises and by the state control commission, the same products are often inspected by trade organizations and the Gosstandart entities. Consequently, the USSR Ministry of Light Industry feels that it would be useful to reduce the number of layers in the control system and the number of inspections conducted by entities outside the ministry's system, such as wholesalers, trade organizations and Gosstandart entities.

In March 1988, we inspected the Tbilisi worsted fabric complex "Sovetskaya Gruziya," which has a state control commission at the plant.

The enterprise, which used to lag behind, has become a leader both in the GrSSR Ministry of Light Industry's system and among the nation's wool fabric producers.

State control professionals assessed the technological level of the plant at all phases of production, inspected measuring equipment, tested the competence of the plant's quality control inspectors at all levels and checked the quality of raw materials shipped to the plant and of the plant's finished output, which consists of fabrics and yarns for the consumer sector. As a result, a set of measures has been developed to eliminate uncovered deficiencies.

At the suggestion of state controllers, the enterprise has revised its standards for the entire range of its product lines, reviewed its technical and product standard documentation, installed advanced equipment for several phases of spinning and finishing and set up a wool sorting process after fulling and washing. Lighting from below was installed on weaving machines which helped eliminate defective runs. Raw materials and supplies are now systematically inspected upon delivery. Quality control employees' qualifications have been tested and they have been assigned to different production phases. If they mistakenly pass low-quality products, controllers can be demoted to a lower qualification category for up to 3 months. Their pay can be docked. For instance, in 1987 workers responsible for letting through defective products paid R15,000 in fines. In addition, employees of the plant lost R15,700 in penalties on bonuses. These measures enabled the enterprise to become a leader as far as the quality of its output is concerned. In 1988, the share of new fabrics replacing old ones reached 64 percent, and that of fabrics marked "N" and "OM" 44 percent.

At many enterprises, state control commission employees do not study production phases. They perform the function of a quality control department which inspects final output. Specialists at many enterprises feel that this superfluous and useless control layer does not help improve the quality of output. Taking this into consideration, many enterprises in Belorussia and Moscow proposed that retail organizations adopt a "shop-to-store counter" system, which is based on total trust.

In the new economic system, the link between industry and trade becomes particularly important. Retail trade must request, and industry produce, only those goods that will be sold and not end up as dead weight at warehouses. Mistakes inevitably cause significant losses to enterprises.

In the current situation, when the market must solve as quickly as possible the problem of producing certain goods, it is extremely important to expand trade through brand-name outlets, which are a kind of intermediate link between producer and consumer. Currently, the sector has 200 such stores. By the end of the 12th 5-year plan, their number will increase to 300, and their turnover will more than double, to R1 billion. Each store must sell 80 percent of fashionable goods.

Brand-name outlets have the right of first choice at wholesalers' fairs. This system was introduced in 1987. In 1988, when goods were purchased for 1989, it was repeated.

In 1987, the largest brand-name outlet in the USSR Ministry of Light Industry system opened in Moscow, the "Lyuks" fashion center. It accounts for one fifth of the entire brand-name outlet turnover in the sector. The store uses the most advanced form of customer service: it stocks samples and relies on a network of personal

computers. This system is unique among retail entities in this country and represents the best existing form of customer service. Its experience will be used in 1989 in the retail outlet of the All-Union Footwear Fashion Design Firm.

On the whole, however, brand-name outlets, which should be a sensitive barometer of consumer demand, have not been particularly effective. The share of output sold through such outlets in the total output sold by the USSR Ministry of Light Industry system is below 1 percent.

To broaden information on consumer response to new product lines at the retail level, a network of specialized "Moda" stores has been established. By January 1, 1988, there was 100 such stores; by the end of 1990, their number will double.

Currently, the question of rapidly and substantially expanding the production of high-quality export goods is the most pressing. Today, our industry exports some 3 percent of textiles, fur products and chinaware and less than 1 percent of sewn and knitted garments and footwear. Broadening of our export potential has become a vital necessity and one of the main goals of our activity. It is not merely a question of prestige for our products, but a source of funds for raw materials, equipment and dyes needed to increase the output of highly fashionable goods in this country. This is why in 1988, the USSR Ministry of Light Industry set up a self-financed agency "Soyuzlegeksport".

Thanks to the measures taken by the ministry, the output of goods with desirable features (especially fashionable goods indexed "N") in the USSR Ministry of Light Industry's system has been rising continuously. In 1986, such goods made up 26.4 percent, and in 1987 29.9 percent of the total; in 1988, that figure will rise to 31 percent.

In 1988, the output of goods with steady demand will also increase; these include permanent press fabrics for dresses and suits, fabrics with smooth or raised surfaces, fulled fabrics for juniors' fashions, as well as corduroy fabrics with cords of assorted widths, of a fashionable texture and with various fashionable printed patterns for trousers and suits. The output of blended fabrics for shirt-making has been increasing (by 20 million meters), as well as that of light-weight printed cotton fabrics, which at 700 million meters account for 50 percent of all printed cotton fabric production. The 1988 plan calls for increased production of fabrics of new weaves and woven figures, to 386 million meters; with the replacement rate of 50.8 percent measured in items and of 14.8 percent in volume.

Much has been done to introduce new items in the silk fabric lines: a new collection of fabrics has been developed for dress-making, made of high-quality blended and light-weight threads and of new weaves and blends,

fabrics for shirts and rain coats, synthetic fabrics for linings for garments manufactured using licensed technologies and fabrics for suits and dresses with a wrinkled, squeezed or quilted look, as well as denim fabrics for juniors' fashions with a prewashed look, etc.

The wool industry has developed a radically new fabric collection: pure wool or 50 percent blended worsteds for dresses with geometric jacquard designs with a brocaded look, including those with a spark effect, as well as overcoat fabrics with printed designs.

The production of highly popular wool fabrics will increase in 1988.

In 1988-90, finishing operations at 10 enterprises of the sector will be retooled, using equipment made in the USSR and Comecon countries.

In 1988, the rate of replacement of garment industry products will be 72.4 percent, measured in items. Retail organizations will get new collections of items: lightweight insulated young mens' jackets made of printed permanent press cotton fabrics, trousers lined with all cotton flannel made of blended fabrics, and heavy shirts made of the same fabrics.

One of the ways to improve the selection and quality of garments is to purchase and introduce licensed processes, to retool factories with the help of companies from socialists and capitalist countries and to install production lines covering a full range of production processes, equipped with highly productive machinery, including semiautomated or fully automated equipment.

In 1988, knitting, sewing and dyeing and finishing operations at 32 enterprises of the knitwear industry are being retooled to increase their production capacities and broaden the selection of their products. The production of knitted fabrics made to resemble velvet, velure and suede, stamped, glazed, teased or fulled, with printed figure designs has been set up. Licenses have been purchased from an Italian firm to produce garments for toddlers and pre-school children, and from a Swiss firm to produce knitted garments for sports and recreation.

Highly productive shops have been set up in women's hosiery production, using imported equipment which helped increase the output of such goods by 20 percent in 1987 over 1986.

New technology has been developed for the production of children's one-piece cotton hosiery, as well as highly efficient technology to produce knitted outerwear using simple hosiery knitting machines.

Plans have been drafted to rebuild and retool dyeing and decorating operations at 20 large enterprises of the knitwear industry.

In recent years, light industry has been paying a particular attention to satisfying growing demand for product lines aimed at specific groups: children, juniors and seniors, as well as goods for sports, recreation activities or hiking.

Currently, some 10 knitwear enterprises are specializing in producing garments for children. The share of such products in the total knitwear output (in bulk) totaled 58 percent in 1987, and in hosiery, 35 percent.

Young people are the most fashionable, demanding and difficult to please group of population, and this is why product lines for them should be separated into a special category, as the experience of the GDR and Bulgaria has shown; they should be given priority in design, production and distribution. Garments should be made of fashionable yet inexpensive fabrics and materials such as cotton and blended fabrics, artificial leather, etc. As far as the price is concerned, they must be on a totally different level from highly fashionable garments.

The share of garments for juniors in the total volume of light industry output remains small, accounting for 7 to 8 percent, compared to 30 percent in the GDR. To increase the production of such goods, we plan to organize production and retail complexes, with some 100 enterprises specializing in juniors' product lines.

In 1986-88, for the first time the sector started to produce garments for large sizes, up to 70, using special samples.

Despite organizational and technical measures implemented by the industry to raise the output of goods for all groups of the population, orders from trade organizations have been filled only 70 to 80 percent, and even less for certain product types. Currently, the sector has set up 20 industrial and retail complexes. In addition, textile and sewing complexes have been established in Ivanovo, Serpukhov, Kutaisi, Gori and Tbilisi. The "Molod-yozhnaya Moda" production and retail complex at the Moscow sewing factory "Chayka" is being set up. Similar work is being conducted by the UkSSR Ministry of Light Industry.

Despite the reduction in the share of slow-selling or obsolete goods, it remains considerable: R1.1 billion, or one fourth of all highly fashionable goods produced by the industry. This enormous waste of material goods must be stopped.

Statistics show that the EsSSR Ministry of Light Industry's system has no such goods, while in the LaSSR and LiSSR there is an insignificant amount of them. Positive experience of the ministries of light industry of these republics, as well as of labor collectives that have achieved better results in producing high-quality goods for the population, has to be utilized.

A way to stimulate efficiency of production is to adopt widely the experience of the EsSSR Ministry of Light Industry in transferring wholesale trade entities under the supervision of the ministry, which eliminates the intermediate link between the producer of a good and its user. This helps address the question of modifying product lines and delivering them to consumers more quickly.

Special production and retail complexes, which include retail outlets, are set up in the republic. A large share of output is channeled to those outlets. Direct ties, without any intermediate links, are a real way to achieve consistent performance at industrial enterprises.

When textile enterprises are built or enlarged, the EsSSR Ministry of Light Industry always includes into their technological design sewing departments whose responsibilities include testing new fabrics, promoting them and distributing goods through brand-name outlets. Not a single enterprise exists in the ministry's system that does not have such an experimental sewing department.

The EsSSR Ministry of Light Industry is now an industrial and trade complex comprised of supply, wholesale, production and retail entities and organizations. Enterprises have been working on an experimental basis for 3 years, posting consistent results. The search for and implementation of new economic forms help achieve successful innovation.

The LiSSR has accumulated much positive experience bringing together the ministries of light industry and trade to move slow-selling items.

Twice a year those ministries rent the Olympic complex at Vilnius (expenses are shared equally), and all the light industry output that has not been sold to date is trucked there. Two weeks in advance, this event is widely advertised on the radio, on television and in the press. Designers work hard to decorate the fair. On the day of the fair, all products are shown by models, informing the public where such goods could be purchased and what colors and sizes are available. Advice is offered during the show on the types of accessories to be worn with the given garment. These activities have enabled the ministries to move slow-selling and obsolete products and not accumulate them in the future.

The cooperation of Kaunas' "Drobe" wool complex with a garment enterprise and a retail trade organization has also been effective. Some 7 or 8 months ahead the Inter-Republic Wholesale Garment Industry Fair, "Drobe" invites representatives of organizations and enterprises that have been buying its textiles for many years. The complex shows them approximately 450 newly developed fabrics. Some 250 are selected from that number, and the complex continues to work on them, improving production technology and specs, fine-tuning technical documents, adjusting prices, etc. At the fair,

the only thing left to do is to sign the contract. Immediately following the fair, the complex begins the production of highly fashionable fabrics at agreed-upon prices.

To provide children's goods for the market, the LiSSR Ministry of Light Industry conducts twice-yearly meetings of joint artistic and technical councils that evaluate finished garments, fabrics and the fibers from which they are made all at the same time. A child model shows all the products, and the commission attentively studies them. For instance, it has concluded that overcoats and dresses are made from fabrics designed for adult fashions. Consequently, it has been established that fabrics for children's clothes are produced in very small quantities. Measures have been drafted to make sure that these currently unavailable goods will be offered to the consumer.

To sharply raise the quality of its output, the BeSSR Ministry of Light Industry has been working to organize production of garments from domestic fabrics and materials that would be competitive in world markets. Every year, the Ministry of Retail Trade of the republic provides the BeSSR Ministry of Light Industry with samples of imported garments (three of each model, type and fashion, corresponding to the type of product line and fashion that needs to be developed). A department especially set up for this purpose at the Belorussian republic fashion center conducts physical, technical and chemical tests on the fabrics and materials, as well as a comparative analysis of domestic and imported samples. Designers from fashion design organizations compare the products' artistic and aesthetic qualities. The results of these tests form the foundation for measures to raise the quality and design of domestic garments to the level of best international standards. For instance, the joint effort of clothing and textile workers produced high-quality wool fabrics for women's overcoats (resistant of shrinkage, wrinkling and saging), threads (durable, tightly braided and strong, and with the same shrinkage qualities as that of textiles), haberdashery ribbons, rubber, lace (extra-white and strong), etc. It is very important that the fabrics and materials used (padding, lining and treads) have the same physical characteristics. Only then can garments retain their appearance after repeated treatments, and be competitive.

To increase the effectiveness of this work, every large garment and knitwear enterprise must create a cooperative to produce modern trimmings and labels.

To keep garments from becoming obsolete or slow-selling, it is important to test new products at brand-name retail outlets. An example of such well-planned, successful work is the experience of the UkSSR leather industry. All new products in the republic are sent to

three brand-name outlets in Kiev, Odessa and Tchernigov to study consumer response. Only well-received products go into mass production. Consumer response is also studied by Moscow production and trade complexes "Moskva" and "Zarya." These enterprises do not have slow-selling goods.

An example of well-organized brand-name outlet trade is offered by the ministries of light industry of the EsSSR, RSFSR and UzSSR.

Light industry has an important responsibility to shape consumer taste in fashion. This task is addressed successfully by the brand-name outlet "Lotos" in Riga.

The LaSSR Ministry of Light Industry was the first to create a line of garments with a unified design and color theme. Every year, a line of garments with a new

theme is created in the republic, such as "working woman" or "clothing for recreation".

Designs for such lines of clothing are selected by competition. Winners are approved at the artistic and technical council meeting. The same meeting directs enterprises to come up with new fabrics and materials from which these clothes would be produced. A typical line consists of 10 or more items, including clothes, footwear, a purse, a hat, underwear, a scarf, etc. "Lotos" sells approximately 500 complete collections a year; they can satisfy the most refined tastes of Soviet consumers. This is how the republic's industry addresses one of today's most difficult tasks, that of dressing a clothed person fashionably.

Copyright: Zhurnal "Tekstilnaya promyshlennost," 1988

HOUSING, PERSONAL SERVICES

Georgian Buro Member Stresses Need for Improved Services

18270009 Tbilisi ZARYA VOSTOKA in Russian
2 Aug 88 pp 1-2

[Interview with Guram Metonidze, brigade leader at the Tbilisi Electric Locomotive Plant imeni V.I. Lenin and Georgian Communist Party Central Committee Buro member, answers questions from Konstantin Kostav, ZARYA VOSTOKA correspondent: "Above All—Concern about People"]

[Text] [Kostav] Recently the CPSU Plenum completed its work. It approved very important decrees "On the Practical Work in Realizing the Decisions of the 19th All-Union Party Conference" and "On the Main Directions for Perestroyka in the Party Apparatus." Tactics for realizing party decisions have been determined and priority directions in this work specified. Guram Archiloich, we would like you, a participant in the Central Committee Plenum, to tell us about the importance of the questions examined there.

[Metonidze] I will not talk about the great impression the All-Union Party Conference made upon all of us. It was a very great event in the lives of the party, country and each of us. It outlined the most effective way for accelerating perestroyka. The Central Committee Plenum is a continuation of the Party Conference. At it the key approaches to priority tasks in making perestroyka irreversible were worked out. To me it seems very remarkable the Plenum participants' attention was centered upon questions directly touching upon people and their daily needs and concerns. I have in mind the very important problems raised at the Plenum: food, improvements in trade, expansion in services, providing the public with mass consumption goods. This was all dictated by the logic and the very essence of the struggle to accelerate the processes of perestroyka in our country. The radical changes occurring in our country have a clear and beneficial goal—doing everything so that the Soviet people will live and work better. However, to completely make these changes, people must believe in them. This can happen only if all of us experience the specific fruits of such processes as quickly as possible and become convinced that as a result our personal welfare has improved. There is good reason that at the party conference the food problem was included among the most important social and political questions which cannot be delayed.

[Kostav] There is talk that if people vote for perestroyka with two hands, but, year after year see empty shelves in food stores, after some time their enthusiasm for the expected transformations will wane. Slogans will lose their specific meaning and discredit themselves. After all, people do not need words, but deeds.

[Metonidze] This is perfectly true. It was mentioned at the Party Conference and the Central Committee Plenum. The discussions were above all about people's urgent needs. Special concern was shown about meeting their need for food. It was deemed necessary to take timely and basic measures in this direction. There have only been insignificant advances in agriculture. While colossal investments have been made in it, the returns from them are very low.

[Kostav] Much was said about this at a recent Georgian Communist Party Central meeting dedicated to implementing the Food Program.

[Metonidze] When, at the Central Committee Plenum, I have heard about the alarming situation in the country's agriculture, I have always referred to our republic. There is no disagreement that our food supply is poor. Hardly anyone thinks differently. We impatiently await improvements.

[Kostav] What is your opinion about ways of solving the food problem made at the Plenum, above all lease contracts?

[Metonidze] The advantages to this way of organizing and stimulating labor are clear to a nonspecialist. When people become genuine masters of the land, are independent and fully empowered, then the land will give the returns we are all expecting. It cannot be otherwise. Lease contracts are a certain path to solving the food problem. In my view, for our republic this means a return to traditional form of agriculture.

[Kostav] Solving food problem and putting enough products in stores will help in ending lines, a sore spot in our society.

[Metonidze] Undoubtedly. I think it was correct that at the Central Committee Plenum they placed fundamental importance upon lines, in which people lose lots of time, nerves and physical strength. Lines humiliate people. They are a carry over from the time of stagnation, when there was almost no respect for ordinary people. They commanded, ordered and made decisions, but they paid no attention to people.

Here I would like to note that lines are not only due to food shortages. As you know, there are also not enough mass consumption goods. Trade is poorly organized, its material, technical base is weak and the service sphere is poorly developed. The Plenum's attention was focused on all these questions. Paths to their solution were found. Specific, large scale measures have been outlined to modernize enterprises in light industry and the public service sphere. During this five-year plan total their volume should increase 15-20 percent annually. At the Plenum it was also stressed that in solving tasks of increasing mass consumption goods and paid services we should have a fundamental approach to the entire distribution system, above all trade and public food services.

With regard to the Georgian SSR I want to note that just a few days ago there was a meeting of republic economic management activists to discuss the tasks of Soviet and economic management organs in the radical restructuring of the paid services sphere. At this meeting it was noted that the provisions of services to residents of Georgia are 2.5 fold below the rational normative. The service sphere has low development rates. There are large differences in services in various regions throughout the republic and in cities and the countryside. It was deemed necessary to take the most decisive measures to improve this situation. There is a similar situation in trade. This requires the timely completion of several difficult tasks.

[Kostav] Will you dispute the assertion that trade in our republic is poorly organized?

[Metonidze] No. I agree with you. Our trade standards are very low. In most cases the material-technical base is primitive.

[Kostav] At the Plenum one of the solutions proposed to strengthen the material-technical base of trade and services was to use administrative buildings now under construction.

[Metonidze] I completely support this proposal. I think that we could find several such buildings in our republic. We only need look for them.

[Kostav] The most burning questions were raised at the Central Committee Plenum...

[Metonidze] Yes, they were discussed. I want to note only the main, key line of the Plenum was to base work on specific measures. In his report, Mikhail Sergeevich Gorbachev noted the need for a decisive transition from words to actions. To whom were these words directed? Of course, to each of us and to Communists above all. We should exert every effort to implement the CPSU Central Committee decisions and thus to assist in realizing the 19th All-Union Party Conference's strategic concepts of perestroyka.

ENERGY COMPLEX ORGANIZATION

Policy Changes in Fuel-Energy Complex Favored
18220005 Moscow PLANOVOYE KHOZYAYSTVO in Russian No 8, Aug 88 pp 38-43

[Article by N. Pravednikov, doctor of technical sciences, professor; O. Makarov, candidate in geological-mineral sciences; and S. Pomazanov, doctor of economic sciences: "The New Structural Policy in Power Engineering"]

[Text] Restructuring the structural and investment policy in the national economy is of great importance for acceleration of the country's social and economic development and intensification of social production. The need for an active new structural policy in power engineering stems from a number of causes.

In the first place, the power resources (TER) should examine not only the physical factor, but also the important element of intensifying social production. Because of this, the fuel-and power complex is faced with the task of considerably increasing the power available per worker, and particularly the electrical power available per worker for social labor.

In the second place, the economic efficiency of the fuel-energy complex (TEK) until recently had been steadily dropping: with the increasing cost for the sector to produce it and the increase in capital intensity of production of the primary TER, the capital-output ratio fell, etc. For example, the relative proportion of capital investments in TEK in the overall volume for the national economy rose from 10.1 percent in 1971-1975 to 12.9 percent in 1981-1985, and will increase by 20.0 percent in the 12th Five-Year Plan. If the capital-output ratio for 1965 is taken as 100 percent, in 1985 it dropped to 38.5 percent in the petroleum extracting industry, in gas—to 36.7 and for coal—to 54.4 percent. The drop in capital-output ratio was caused mainly by the deterioration in the mining and geological conditions for fuel extraction and by the sizable increase in the growth rates of providing labor with fixed capital over the growth rates of its productivity. For example, in the petroleum extracting industry, in 1976-1980, the amount of capital rose by 9.2 percent, and labor productivity by only 3.2 percent, and in 1981-1985 the capital intensity rose by 9.7 percent, and labor productivity dropped by over 3 percent, that is, for 10 years there was practically no overall increase in labor productivity.

In the third place, there continues to be an increase in the use of energy resources in the fuel-energy complex itself, and the energy-intensiveness of its product is increasing, particularly with respect to the expenditure of TER in associated sectors, which provide their output directly or indirectly to the sector's TEK. In particular, in the full labor-intensiveness of extracting and transporting gas

and oil, the indirect expenditures constitute approximately 45-50 percent. According to preliminary estimates, the relative proportion of TEK's own needs for general extraction and production of TER rose from 16.9 percent in 1980 to 18.3 percent in 1985.

In the fourth place, a number of other negative phenomena have been observed, directly linked with the development of TEK, which also require appropriate accounting when carrying out the new structural and investment policy. This is, specifically, the exacerbation of the internal and foreign energy-economic situation, connected mainly with the extraction and use of petroleum. On the one hand, with continually rising expenditures and difficulty in extracting it, saving on petroleum has not achieved the desired effectiveness, and on the other hand—world prices for oil in the last three years have been cut approximately in half. While in 1975-1984, exporting petroleum was quite profitable and provided considerable currency inflow, in the last few years its effectiveness dropped, and as a result, the proportion of energy resources in the export structure in monetary terms dropped from 54.4 percent in 1984 to 47.3 percent in 1986, even though the physical volume of the fuel supplies on the world market was not reduced.

At the same time, it must be said that the development of another important sector—atomic energy—is lagging behind. In addition, the unequal distribution of energy resource reserves on the territory of the country requires increasing expenditures to raise the production and transport of fuel from the eastern to western regions.

A further increase in the economic efficiency of developing TEK and particularly improving its sectorial and territorial structure depends on conserving resources, high-quality updating of the production system and achieving the optimum correlations of coal, petroleum and gas extraction. A substantial change is outlined in the intersectorial structure of TEK (Table 1).

Table 1. Sectorial Structure of Primary Energy Resource Production (in percent)

	1975	1980	1985	1990
Oil and gas condensate	43.5	44.0	38.6	34.2
Gas	21.6	26.4	34.2	37.9
Coal	29.4	23.6	20.3	18.0
Electric power (AES, GES)	3.0	4.3	5.6	7.6
Other	2.5	1.7	1.3	1.3

It can be seen from the data presented that a noticeable reduction occurs in the proportion of petroleum in the overall production of primary energy resources, with a simultaneous rise in the relative proportion of gas and primary electric power. The proportion of coal drops somewhat more slowly, and in the future its relative

proportion will probably increase after a stabilization period. This efficient trend should also be maintained in the next five-year plan as well. This conclusion is also supported by the experience in developing other industrially developed countries. For example, the relative proportion of petroleum in the overall power consumption of the USA dropped in 1985, as compared with 1980, by 6 percentage points, and by the year 2000 is slated to be reduced by a factor of almost 1.6.

In addition to energy saving measures, a substantial role in reducing the proportion of petroleum is played (and will be played) by replacing it with other, alternative raw material sources, particularly gas, light hydrocarbon raw material and synthetic liquid raw material, obtained by deep processing of coal and shales.

The correlation between electric power and the fuel industry plays an important part in developing TEK. In the future, accelerated development of electrical power should be considered a priority trend, and on its basis—a rise in the electrification rates for the entire national economy.

The connection between electrical power and the fuel industry is best characterized as a so-called electrical-fuel coefficient, determined as the relation of the consumption of electrical energy to the expenditure of primary energy resources. Its value increases regularly, reflecting a positive process—the consumption of converted types of energy, but the growth rates are lower than in individually developed countries.

The correlation between the petroleum extracting, gas and coal industries is most significant in the fuel sub-complex. Since the products of these sectors vary in energy-intensiveness, then with purposeful changes in the structure of these sectors, stabilization, or even a certain reduction can be achieved in the energy-intensiveness of the total output of the entire fuel-energy complex. For example, in 1980 the energy-intensiveness for extracting and transporting gas, as compared with the analogous indicators for petroleum, was over a factor of 1.9, and in 1990—will be higher by only a factor of 1.4, and in the 13th Five-Year Plan these indicators can be compared. The growth rates of energy expenditures to extract these energy resources were also different. For example, the energy expenditures to extract oil from 1980 to 1990 will increase by a factor of almost 1.6, and to extract gas—by a factor of 1.2.

The basic changes in electrical energy will take place due to the effect of the intensive development of nuclear power (AES): the relative proportion of electrical energy production at thermal electric power stations (TES), with its proportion stabilized at hydroelectric power plants (GES) (Table 2).

Table 2. Structure of Electric Energy Production
(in Percent)

	1975	1980	1985	1990
TES	86.0	80.2	75.3	69.6
GES	12.1	14.2	13.9	13.2
AES	1.9	5.6	10.8	17.2

It is expedient to construct new nuclear plants for electrical and thermal supply and nuclear thermoelectric supply plants in the regions in the European part of the country that are shortest of energy. Nuclear power will make it possible to substitute large amounts of organic fuel. By the end of the century, the relative proportion of it in the structure of the total production of electric power can be reduced to 25. This will make it possible to reduce the energy-intensiveness of the TEK output, according to evaluative calculations, by at least 23-28 percent.

Heat supply in the country will be further developed. Outlined for this sphere of activity is the expansion of centralized heat supply on the basis of TETs and large boiler rooms, and more active use of nuclear fuel to produce thermal energy. As has been said repeatedly in the press, there should be a reduction in small, uneconomical boiler rooms (with a capacity of less than 20 Gcal/hour), in the servicing of which about 3 million persons are engaged—2.3 percent of the number of workers in national production. Cutting down this personnel with the transition to centralized heat supply will give a substantial economic and social effect.

In the petroleum extracting industry, there is an increase in extraction on the territory of northern Tyumen Oblast, augmented development of regions in the Caspian depression and further development of petroleum reserves in the Komi ASSR and Arkhangelsk Oblast. Already in the current five-year plan the proportion of petroleum extracted in Western Siberia has increased from 61.8 to 66.3 percent, and in the Caspian depression—from 0.7 to 3.9 percent.

The progressive changes in the technological structure of petroleum extraction, expressed in the increased proportion of gas condensate, will make it possible to raise its relative proportion to 7-8 percent. The increase in the extraction of gas condensate can to a certain extent compensate for the probable reduction in petroleum extraction. In the 13th Five-Year Plan, it will be necessary to achieve almost full use of casing-head gas. In the next 10-15 years the problem must be solved of extracting from natural and casing-head gas, light liquid hydrocarbons and using them as motor fuel and petrochemical raw material.

Substantial changes are being observed in the technological conditions for operating petroleum deposits—a reduction in the extraction by the less expensive and less energy-intensive gusher method. From 1980-1985 its

proportion was reduced from 84 to 33 percent in petroleum extraction. In the future, there will be expanded use of the mechanized method, which is linked with the increase in expenditure of fuel, energy and other physical resources.

The petroleum refining industry must ensure an increase in the production of types of motor fuel, as well as supplying raw material for petrochemistry and the chemical industry, on the condition that the level of petroleum extraction be stabilized. This requires restructuring of its work in order to improve the quality of the petroleum goods produced and increase the depth of the petroleum processing by at least a factor of 1.5.

The demand is increasing for advanced types of products such as plastics and synthetic resins, chemical fibers and synthetic rubber. This makes it necessary to boost production of the basic monomers of petrochemical synthesis—ethylene, propylene, benzene, isoprene and butadiene. High growth rates for the production of ethylene, in turn, require a sharp increase in the extraction of primary hydrocarbon raw material and expansion of the raw material base of petrochemistry (ethane, propane, butane) and an assortment of other petroleum products. In the future the relative proportion of furnace residual fuel oil is to be reduced by a factor of over 1.8, and at the same time, the proportion of diesel fuel is to increase by at least 25 percent, which will make it necessary to raise the level of dieselization of transport and certain other sectors.

To implement the structural changes outlined requires that new capacities be put into operation (particularly for processes such as hydrocracking, hydropurification of fuel, catalytic cracking, etc.), as well as fundamental restructuring and technical reequipment of many facilities in the petroleum refining sector.

The substantial structural shifts in the gas industry are related to the increased role of gas, used as a hydrocarbon raw material. There should be a continued increase in complete processing and use of this raw material, with a gradual increase in the production of condensate, propane-butane fractions, ethane, helium, sulfur and other components.

In the 13th Five-Year Plan, work should be done on actively developing the oil and gas resources of Eastern Siberia, and on the Yamal Peninsula, and the development of the unique deposits of the Caspian (Astrakhan and Karachagana) should be continued. The relative proportion of Western Siberia in all-union gas extraction in the 12th Five-Year Plan will increase from 58.5 to 69 percent, and for the Caspian depression—from 0.3 to 3.2 percent. Extracting gas on the continental shelf is slated to begin.

In the coal industry, further improvement is planned for the technological structure of coal extraction. There are real prerequisites for increasing the relative proportion of coal extraction by the advanced open pit method.

Among the infrastructural changes in the coal industry should be included an increase in coal processing, output of briquettes and coal concentrate, and in the future—synthetic liquid fuels and chemical raw materials. At the same time, widescale introduction of enrichment and processing of coal should be carried out in the basins of the open coal mines. An increase in the extraction of coal should take place mainly on the basis of the eastern regions of the country, with a simultaneous lessening of the relative proportion of Donets and other coal basins in the European part of the USSR.

The Kansk-Achinsk Fuel-Energy Complex (KATEK) will acquire even greater significance. It will become the most efficient source of production of electrical energy and other types of fuel-energy resources, on the basis of the large deposits of the cheapest coal, extracted by the advanced open-pit method.

Stepped up development of the Kansk-Achinsk basin, along with the simultaneous growth of open-pit extraction of coal in two other large basins in the eastern part of the country—Kuznetsk and Ekibastuz—is characterized by the special features of development of the coal industry and the change in its territorial structure.

Some of the elements of the structural shifts in the development of the country's fuel-energy complex that were set forth above are, on the whole, sectorial and territorial, and others will undoubtedly lead to an increase in the efficiency of its work. Above all, the relative proportion of capital investments in TEK in the overall capital investments in the national economy (by our estimates, at least 15 percent by the end of the century) should be reduced; stabilization should be achieved, and then a substantial reduction in the relative consumption of petroleum fuel; the rates of increase in consumption of organic fuel at thermal electric power plants in the European part of the country should be reduced as the result of building AES. Because of this, at the turn of the century the increase in flows of organic fuel from the east to the west of the country should cease.

At the same time, it must be noted that at present certain factors continue to intensify their negative effect, making difficult a further, more substantial improvement in the economic indicators for the development of the fuel-energy complex, including a relative reduction in capital investments and energy expenditures.

First of all, it is a question of protecting the environment when producing and using energy resources. According to data available, the proportion of individual consumers of fuel in the overall volume of harmful emissions into the atmosphere are: electrical energy—31-33 percent, the fuel sectors of industry—11-12, transport—

over 30 percent. All this makes it necessary to carry out measures that are effective from the ecological standpoint, which require ever-increasing material expenditures.

Natural factors have an adverse effect on the technical-economic indicators of TEK development—deteriorating mining-geological and natural-climatic conditions in the extraction regions. Studies made by VNIKTEP [All-Union Scientific Research Institute on Comprehensive Fuel-Energy Problems] for USSR Gosplan attest that over half of the actual average yearly decrease in output-capital ratio in the petroleum extracting industry and over one-third in coal extraction (mainly due to unsatisfactory conditions in the underground extraction) fell to the lot the natural factor in 1976-1985, as compared with the preceding ten-year period. The reduction in capital out-put ratio and technical-economic indicators for the work of the fuel-extracting industries also stems from lagging behind the rates in introducing the achievements of scientific-technical progress in production, the results of which do not yet make up for the negative effect of the natural factor on the efficiency of using the fixed capital, for the cost of producing TEK for the sector and for labor productivity.

The structural policy in the development of TEK and the above mentioned transformations in it cannot sharply reduce the use of fuel-energy resources without exacting examination of the problems of energy consumption in the national economy and all its sectors. This structural policy should therefore be examined as a whole for the national economy, since the purposefully directed changes in its behavior could lead to a considerable reduction in the need for energy resources by the country's economic system, with a corresponding reduction in the energy-intensiveness of national production.

Consequently, both from the standpoint of power interests and from those of other sectors, it is efficient for the country's economic system to develop in intersectorial and intrasectorial proportions that would lead to a relative reduction in the volumes of fuel and energy consumed in the national economy and a reduction of the capital investments and other expenditures to develop a highly capital-intensive fuel-energy complex.

The power intensiveness of the resource sector of the Soviet economic system is higher by a factor of 4.5-5 than the processing. At the same time, in the economy of our country, and particularly in industry, a considerable proportion of energy and fuel is consumed for the production of iron, steel, iron ore, cement and other energy-intensive types of output.

The development of such advanced sectors of industry as machine building, the chemical and petrochemical industry has taken on exceptionally great significance. Their energy-intensiveness is, respectively, lower by factors of 9 and 1.2 than in ferrous metallurgy. The proportion of the products of these sectors in USSR industrial

production is, however, still increasing slowly. It is clear that stepped-up development of the sectors mentioned, which form, as is known, the basic acceleration in scientific-technical progress, will make it possible to raise the industrial level of national production, and its efficiency, by substantially reducing the energy-intensiveness of industrial products as a whole.

There is an urgent need to improve the structure of transport, particularly motor vehicle. Converting motor vehicle, particularly truck transport, to diesel fuel ensures a reduction in the expenditure of light petroleum products of approximately 30 percent. Wider use of compressed natural gas will obtain a considerable saving in petroleum products. Estimates show that the transition to natural gas of about one million motor vehicles will provide a replacement for 8-10 million tons of gasoline.

It is very important to improve the technological processes in industry, i.e., to change the technological structure of industrial output. It is known that 122 kg. of conventional fuel is expended per ton of clinker produced by the dry method, and 222 kg, with the wet method. Meanwhile, there is still a slow increase in cement production in the country on the basis of this energy saving technology. Despite the fact that the first domestic furnace with a cyclone heat-exchanger for the dry method of cement production was created in the USSR as far back as the 1950's, (considerably earlier than in the United States and other countries) cement production using the dry method constituted approximately a seventh of the total cement production in the USSR in 1986.

Carrying out fundamental structural transformations in the fuel-energy complex as an aggregate with major measures for direct energy conservation will make it possible to raise the efficiency of using the fuel-energy resources and to reduce the need for capital investments to develop the complex.

COPYRIGHT: Izdatelstvo "Ekonomika." "Planovoye khozyaystvo." 1988

Question of Whether to Export Soviet Oil Debated

18220003a Moscow KOMSOMOLSKAYA PRAVDA in Russian 15 Jul 88 p 2

[Interview with Aleksandr Arkadyevich Arbatov, doctor of economic sciences, by economic columnist P. Voshchanov: "Officials and Merchants"]

[Text] A letter from Tyumen petroleum engineer V. Polesov was the occasion of this conversation of our economic columnist, P. Voshchanov, with Doctor of Economic Sciences A. A. Arbatov:

"We are being told all the time that the country needs more oil and gas! But actually, why? It looks as if it is to sell more abroad. But to what end? If it is for foreign exchange, then who lives better because of it? Take a look at our Siberian 'petroleum kingdom'—everything is neglected! Spent sites that have been transformed into vast dumps, a lack of roads, communal living in cities, and boots and quilted jackets—this here is our prosperity! What's the good of those 'national riches'? To whose advantage is it to sell Soviet oil and gas abroad? And is it advantageous?"

[P. Voshchanov] Aleksandr Arkadyevich, how do we answer Comrade Polesov? I want to confess: before meeting you, I put similar questions to one of the workers of our foreign-trade agencies, but I got no answer. I was given to understand that in such an area as oil and gas exports, curiosity is simply out of place. Can it be that this is actually an absolute state secret?

[A. Arbatov] Yes, in any trade there are secrets, and in foreign trade this is even more so. The price of losses caused by losses to competitors is especially high here. But also, in our case, I think that that is not the explanation. As in a stage trick, all the flaws of the old economic policy come together simply in the "fuel problem." And who primarily is to blame for this? The bureaucratic administrative system. That is why your official declined to answer.

[P. Voshchanov] I recall Marx: "The universal soul of bureaucratism is the SECRET, secrecy!" But still, let us investigate it in sequence. Today it is a secret from no one that our country sells colossal amounts of oil and gas abroad. So when did this start and what caused it?

[A. Arbatov] The Soviet Union announced in the 1960's that it was a large exporter of fuel. The level of recovery in the Volga-Urals region was still fairly high, and West Siberia was just gaining strength. Expenditures for recovery were relatively low, and the prospects appeared to be enormous....

[P. Voshchanov] Incidentally, our foreign policy was energized during precisely this period. For all this time, the merchant was unfailingly following the diplomat. But what did our merchant have to take abroad? We had few commodities after the war. Was this not the main cause that compelled us to count on oil?

[A. Arbatov] Of course, this was to a great extent a forced step. But eventually it was necessary to expand exports. Not only in quantity but also in diversity of commodities. But this did not happen. Expansion of the range of exported goods required great efforts, and no one guaranteed success. But the official does not love risk! And the oil crisis of the 1970's in general added oil to the flames—in a year the price rose 4-fold! The scent of enormous sums of money was in the air. It was here that

our managers (and, incidentally, not only they) tried the "oil narcotic." The illusion of achieving rapid economic prosperity through the export of a raw material went to the heads of many....

[P. Voshchanov] Especially in the example of the states of the Persian Gulf. Oil exports literally tore them from the Middle Ages.

[A. Arbatov] To many it seemed that the oil prosperity would not end, because the price for oil on the world market supposedly would increase all the time. Also encountered were such profound arguments as: any day now, they said, new and inexhaustible sources of energy will appear. Then what will we do with our reserves? We won't get a plugged kopeck for them! If so, then we must hurry. The more that is recovered, the more that is sold! That was the logic of those years. Today such discussions seem strange, to put it mildly, but at that time they were perceived completely seriously at "the top." In general, in the stagnant period, the welfare of many of our administrative "staffs" depended upon oil and gas exports. For example, the former Ministry of Foreign Trade fulfilled its plans for exports mainly through sales of raw materials.

[P. Voshchanov] And the agencies that engaged in oil and gas recovery? The "oil narcotic" also affected them?

[A. Arbatov] To an even greater extent. Having been given the role of the main supplier of foreign currency, they increased their prestige, with all the benefits and privileges that flowed from this. They received enormous funds, and with their help they achieved more effective results. Beginning with the Ninth Five-Year Plan, the rate of growth of capital investment in the oil and gas complex was 3-5 times greater than in other branches. And foreign-exchange purchases also were higher. Of course, this was advantageous to the corresponding agency: exports became its main concern. And did we succeed in the gasification of our enterprises and communities? In this area the achievements were more modest by far.

[P. Voshchanov] Yes, it was the wrong prestige! There was neither favorable supply nor favorable financing. But orders and medals? And business trips abroad? Under bureaucratic administration, these circumstances, even in other branches, at times had the greatest of influence on the adoption of extremely serious economic decisions.

[A. Arbatov] In order to transport colossal amounts of raw materials to the West, most capacious gas pipelines were required. And this meant enormous expenditures, including foreign exchange. This involved both foreign companies and domestic machinebuilding. For the sake of correctness I will say: the task was solved in the shortest of times, and this, of course, created good opportunities for gasification of the country's European

parts. But did this justify the goal of "fuel" exports? Possibly, from the standpoint of one or two agencies. But from the standpoint of the whole national economy it is doubtful.

[P. Voshchanov] It is confessed, the outcome was unexpected. Because for many years we were assured: selling oil and gas is advantageous for the country! The prices for them were fairly high and, what is more, we will not be any the worse for it, as they say. It seems that however much gas we pump out, it is really an infinitesimal portion of our potential resources. Is it worthwhile to dress up in the clothing of a "stingy knight"? Is it possible that oil and gas exports are still good and it is not yet time for domestic savings?

[A. Arbatov] It is not a question of whether to sell fuel or not to sell it. Although this is far from secondary. The main thing is, for what purpose? Why is "oil" currency needed in such amounts? The bureaucracy right away got to the core of its hidden possibilities. Everything we are short of—machinery and equipment, foodstuffs and consumer goods—it turns out, can be acquired abroad without special bother! I will cite some figures. In 1960 we sold 17.8 million tons of oil abroad, 117 million tons in 1985. The increase was impressive! But take note: simultaneously the country became a most huge importer of foodstuffs and equipment. In 1960 about 200,000 tons of grain were purchased abroad, and in 25 years 44.2 million tons! Purchases of electrical equipment during this period rose 22-fold, metallurgical equipment 19-fold, and farm machinery 154-fold! I will be so bold as to assert: were it not for the "gift" that the world oil crisis presented, and if the possibility for acquiring many things abroad had not appeared, even the thought of such "distorted" paths for satisfying the needs of a great power for foodstuffs and technical equipment would scarcely have arisen. And, I think, our lives would have not been worse off for it.

[P. Voshchanov] You mean to say that solving our economic problems through foreign exchange obtained from the sales of petroleum appeared to be a temptingly easy business. It is agreed. It is not necessary to tear down the outdated but customary organization of production and administration and the existing economic mechanism. Especially since perestroika would inevitably lead to a weakening of bureaucratic policies and to the loss of bureaucratic authority.

[A. Arbatov] That, in my opinion, is the very essence of the stagnation! It is no accident that one of our former major managers once stated that making up the page proofs of five-year plans should begin only after the potential for recovering oil and gas in West Siberia had been clarified....

[P. Voshchanov] We decide at the start what we can buy abroad, and we make for ourselves that for which there is not enough foreign exchange?

[A. Arbatov] That's practically been the way it was. Recently, at an economists' conference, one of USSR Gosplan workers remarked: "Were it not for Samotlor's crude, reality would have forced us to begin perestroika 10-15 years ago."

[P. Voshchanov] It can be objected that it is cheaper for us to buy for "oil" dollars that which the country is not producing than to build expensive production facilities.

[A. Arbatov] It would be necessary to get to the heart of what is "cheaper." No one is counting all the expenditures for recovery. A major portion of the blue-collar workers employed at oilfield facilities and at pipeline construction (and in West Siberia alone, more than 100,000 people in recent times have been brought in annually) has come from the Russian countryside. Who will make up for the harm caused by the "flow pumping" of people? Are we not paying for our "petroleum" ambitions with an exacerbation of agricultural problems? And, in the final analysis, the shortage of foodstuffs is being made up for by purchases thereof abroad. Incidentally, with this same "fuel" currency. It's a vicious circle. It is becoming more difficult to get oil and gas. A major portion of the capital investment is already going to just maintaining the level of recovery achieved. And these sums are colossal: the country is investing tens of billions of rubles annually in the West Siberian complex alone. The assimilation of new fields requires basically new equipment. Can we manufacture all of it ourselves? No. Again we look abroad for it, and the prices for it have risen recently.

[P. Voshchanov] Indeed, we could have made much of it ourselves. Or jointly with foreign companies—that which would be needed only to guide our efforts toward it?

[A. Arbatov] Many economic managers have not noticed this or they have not wanted to notice it. And today we are reaping the harvest, to put it mildly, of our heedlessness. We, like other oil-producing countries, underestimated our trading partners. The high prices for oil did not, of course, suit them. They began to search for ways for reducing fuel requirements—energy-saving technologies and the replacement of oil by other types of fuel. In the last 10 years the average annual consumption of oil in North America, Western Europe and Japan has fallen by almost a quarter of a billion tons!

[P. Voshchanov] Would it have been possible to foresee such a turn of events earlier?

[A. Arbatov] Yes, of course. If one administers with the help of science and fails to employ it only when supporting harebrained utopian schemes. These are the rudiments of economics—raising prices for raw materials always is reflected in the price of the finished product: if we sell oil at higher prices today, tomorrow we buy equipment at higher prices. The prices for fuel never, in the long-term, outstrip the prices for finished goods.

Therefore, the formula, "extract fuel in order to sell abroad, in order to buy for the USSR" does not, in the final analysis, bear appreciable advantages.

[P. Voshchanov] But seemingly many of our agencies and economic managers do not share this point of view. Recently, it is true, they have begun to speak less about exporting oil, but then the rosiest hopes are placed on trade in gas.

[A. Arbatov] I do not doubt it. Our gas-recovery workers are now drilling wells beyond the Arctic Circle, far closer to the North Pole than to the western borders of the USSR! This requires a new round of expenditures. New equipment for drilling and for gas flow stations, and new types of pipelines are needed—of almost space-age reliability, and that means astronomical cost.

[P. Voshchanov] You put the high-pressure conquest of new fields in doubt. But here is a bundle of letters. They all say the same thing: there is no fuel! Car drivers, pilots, tractor operators, seamen and car owners are writing....What is to be done?

[A. Arbatov] To become, at last, sophisticated owners or managers. There is no other way. Indeed, can it be considered normal that a major portion of our oil and gas is left in the ground? Before the potential of one field is exhausted, we begin to develop the next one. The number of fully productive but unused oil wells last year in West Siberia alone rose three-fold.

[P. Voshchanov] The cosmonauts say that at night they can see two regions of our hemisphere—Western Europe and West Siberia—that are flooded with light. In the former it is the illumination of cities, in the latter it is the flares of burning casing-head gas. Those who fly aircraft over Tyumen at night pay attention for sure to orange clouds under the wings of their aircraft. This impresses even the nonspecialist.

[A. Arbatov] I think that this spectacle does not impress the bureaucrats. The problem of using casing-head gas is not the fact that its beard has grown but that it has been turning gray! In Tyumen alone during the past two years more than 23 billion cubic meters of gas have been burned or simply discharged into the air. About 2 million trucks could operate on this fuel for a full year!

[P. Voshchanov] Are the consumers' fuel losses also great?

[A. Arbatov] That is not the word for it—it is monstrous! Our consumption of energy resources per unit of output produced is, as a minimum, one-third greater than in the U.S. And the Americans, it must be noted, are lagging considerably behind their Western European and Japanese partners in this matter. By cutting fuel and power consumption by just 1 percent, we could save about 2 billion rubles. Is this a lot or a little bit? With this money 80,000 single-family cottages with all the conveniences

could be built, and about one and a half billion is lacking for eliminating the difference in pension provisioning for blue-collar workers and kolkhoz farmers.

[P. Voshchanov] We spoke about the bureaucracy's responsibility for miscalculations in developing the economy. But how do you limit the monopolistic appetites of our agencies? Is there any keeping them in check?

[A. Arbatov] First of all, eliminate their monopolistic position. It is necessary to change the philosophy itself of control, returning it to actual social interests. Until we learn to consider all the expenditures on the state's account, and not according to the agencies' arithmetic, the new "designs of the century" will not propagate the glory of the N-th branch of the economy and its "battle staff." For example, a design for the high-pressure assimilation of gas fields of the Arctic Yamal is being undertaken right now. Again the engineering solutions have not been thought out carefully, and the costs are astronomical. While at Urengoy sand had to be washed from a depth of up to 20 meters in order to set up a derrick, here soil has to be brought in over many hundreds of kilometers. Development of the offshore shelf is beginning. But has it all been well thought out? For example, the recovery of oil and gas is being promoted on the Sakhalin shelf with the participation of Japanese firms. It is not great, and so it is that the income in foreign currency will not be substantial. The installation of platforms also in Kamchatka's waters is being undertaken. "Thanks" to these efforts, the Motherland can be deprived of unique schools of Okhotsk Sea herring and Pacific Ocean salmon. Such losses will actually be enormous here.

[P. Voshchanov] A dispute has been going on for years about the desirability of getting oil in the Baltic Sea....

[A. Arbatov] But is the game worth the candle? How much oil can offshore recovery in the Baltic give? According to the most optimistic forecasts, no more than a million tons per year. While our annual losses of oil in one Tyumen alone exceeds a million! Thus, perhaps, it is more suitable to impose order here without taking a chance on the sea? In the last five years, for example, there were about 20 incidents of serious pollution by crude in the Caspian.

[P. Voshchanov] But is there assurance that common sense will gain the upper hand? The statement of the chief engineer of Kaliningradmorneftegazprom [Kaliningrad Association for Offshore Production of Oil and Gas], which I read in an issue of the journal ENERGIYA, puts one on guard: "Write, write. Your time is now. For soon world prices for oil will rise and, come what may, we will be working in the Baltic."

[A. Arbatov] At times it seems that some managers are living on another planet, are breathing different air, drinking different water. The interests of their own agency and their own career obscure everything.

[P. Voshchanov] It is not usual to conclude such interviews with a journalist's remarks, but how can I help but recall Kozma Prutkov: "An official dies, and his decorations remain on the face of the earth!"

[A. Arbatov] I would not like to call these decorations. Another word is needed....

Progress on New Tyanovski Field Noted
18230003b Moscow PRAVDA in Russian 19 Jul 88 p 2

[Article by T. Nikolayeva (Tyumen Oblast): "It's Called the Tyanovskoye"]

[Text] The orange-colored MI-8 smoothly lifts off into the air and, gathering altitude, leaves Surgut below, with its new housing tracts and the broad Ob. With O. Katkov, chief geologist of the Surgut party Obneftegazgeologiya, I fly north, where a new oil field has been discovered.

In the mid-70's a deep well was drilled here but there was no oil. Later it was explained that it had been located unsuccessfully; it fell in the so-called "wing" of the oil formation, so it proved to be dry. Operations in this region were halted. Ten years later we returned. And now the geologists expected success. The first well was drilled through by foreman A. Mustafin and it yielded crude.

Then there were other wells, which confirmed the presence of oil here. A portion of these wells are in the process of drilling, others are awaiting test of the reservoirs, and still others have been set aside and are ready for transfer to the oil-recovery workers. The field has been named the Tyanovskoye, in memory of Arkadiy Vasilyevich Tyan—a well-known geologist.

The helicopter landed and we found ourselves at a drill rig—one of those that are now drilling at the new field. One of the teams of the brigade of drilling foreman V. Solovyev, which is well-known in the country, is working here. The senior helper of the foreman is A. Smirnov, and he is the team leader.

"We can operate," said Anatoliy. "Our lads are hard-working. But there are also plenty of difficulties: obsolete machinery, mechanization is low, and manual labor—there are loads of it. Thought should have been given long ago to special versions of drill rigs for the northern regions and West Siberia. And not simply give thought to it but produce it."

I spoke with the drillers about housing and living conditions. I also asked about team-leader Smirnov.

"As for such persons as our Smirnov, it is customary to say he is a hard worker," said one. "He has his feet on the ground. You know how it is: a man shoots up as a leader but he cannot stand his ground. But this one, he is a

steady leader and has been for many years, just like the brigade leader. There is a feeling of comradeship in our brigade, probably that is the main thing"

And now the new Tyanovskoye field is below us. Already next year it is planned to transfer it to the State Commission on Reserves of Useful Minerals under the USSR Council of Ministers. This means that much strenuous work is to be done here. It is still too early to speak about assimilation of the Tyanovskoye. This is a matter for the future. But the fact that the nearest strand of an oil pipeline passes relatively close to here is very important, since the "buildup" of it at the new field will require high expenditures of both labor and funds. Discovery of the new field is a very important victory. Indeed the oil-recovery workers are literally following on the drillers' heels.

Experimental Coal Slurry Pipeline in Kuzbass
18220003c Moscow IZVESTIYA in Russian 23 Jul 88 p 1

[Article by A. Illarionov (Novosibirsk): "Coal Pipeline—the Transport of the 21st Century"]

[Text] Hydraulic testing of the first tank for receiving VUS—coal and water slurry—which will arrive at Novosibirsk TETs-5 from the Kuzbass [Kuznetsk Coal Basin] over a specially laid high-capacity coal pipeline, has started. One of the largest experiments in the world's experience in transporting coal by pipe over long and superlong distances will begin in the near future.

The experiment's magnitude is affirmed by this misunderstanding: when A. Grigoryev, chief of TETs-5's hydraulic department, led me past the second such tank, which was uncovered on one side, I thought that a large industrial building was being built here. This structure's diameter, as was explained, is almost half a hundred meters, it is seven stories high, and its capacity is 20,000 cubic meters.

The concluding portion of the 270-kilometer Belovo-Novosibirsk pipeline has already been brought to the receiving structures. The steel pipe, more than half a meter in diameter, has been laid under the layer of soil that freezes in the winter.

While Sibenergostroy [Trust for the Construction of Power-Engineering Facilities in Siberia] and Sibenergomontazh [Trust for the Erection of Power-Engineering Equipment in Siberia] are finishing the receiving, fuel-feed and combustion elements at the TETs site, Kuzbass-shakhtostroy [Kuzbass Mine Construction Trust] is readying the still larger pipeline-terminal structures at the Inskaya Underground Mine. There the coal will be ground up, as V. Salov, deputy chief engineer of pipeline

construction, told me, into an instant-coffeelike fraction. Two-thirds of the slurry will consist of steam coal, one-third will be water, and about 1 percent will be plasticizer: a substance that should maintain the homogeneity of the slurry, keeping it from stratifying en route and in storage tanks for a month.

The powerful and superpowerful pumps of the flow stations were designed for sending several million tons of fuel per year to Novosibirsk, avoiding the necessity for moving hundreds of coal trains over one of the most heavily traveled railroad lines and saving tens of thousands of tons of coal from blowing off the trains and from spontaneous combustion.

The experiment touches on not only transport of the slurry but also its combustion in the boilers' fireboxes, with the simultaneous evaporation of the water and the burning of harmful impurities that get into the water during transport.

In passing by the compressor room, going towards the fireboxes of TETs-5's boilers, it is as if you had dropped in at an exhibition of the most modern equipment, with the company emblems of the world's well-known machinebuilding companies. All this, just like the engineering documentation for installation, was set up under a contract with the Italian company, Snamprogetti.

CIVIL AVIATION

Aviation Weather Service Problems Noted

18290020a Moscow VOZDUSHNYY TRANSPORT in
Russian 27 Sep 88 p 1

[Article by B. Kiselev, senior forecaster of the Aviation Weather Services Department of the TsUVD GA [Air Traffic Control Central Administration of the Ministry of Civil Aviation], under the "Experience and Problems" rubric: "The Forecast Has Been Drawn Out for Decades"]

[Text] Indeed, despite all the measures being taken, meteorological support is still not meeting increasing requirements to the full extent. The basic reason for this is that the Regulations on Meteorological Support for Civil Aviation are not being implemented completely, for which the Goskomgidromet and the MGA [State Committee for Hydrometeorology and Environmental Control and the Ministry of Civil Aviation] bear responsibility.

I am convinced that the Goskomgidromet has not been improving and developing the system of direct ties with aviation in recent years. This has an adverse effect on the timeliness with which the necessary weather information gets to civil aviation airports, of course. Simple and reliable weather stations are not being developed for the airfields servicing local air routes. The consoles of weather instrument displays for the basic observation points at airports with several runways are not being manufactured in a centralized manner. Meteorological data are gathered and weather forecasts are prepared as they were decades ago, without automated facilities, which reduces labor productivity and the quality of the information provided. Aeroflot and foreign airline crews are receiving documents that have been prepared sloppily and contain distortions because of the lack of appropriate duplicating equipment.

Development of the VOLMET radio [weather] broadcasts, which have won recognition from aircrews, is being held up. The reason? The lack of staff units.

The automatic KRAMS which were intended for remotely controlled collection and dissemination of data on weather conditions at an airport before they were taken out of service, have not been restored for an extended period of time because of the lack of trained specialists.

The FI-1 impulse photometers used for runway visual range [RVR] measurement, which are made by the Riga Hydrometeorological Instruments Experimental Plant, need labor-intensive adjustments over an extended period of time when they are operated as a self-contained unit or as part of the KRAMS automatic station. Consequently, the problem of measuring one of the basic parameters for flight operations has not been fully resolved yet. Development of equipment to measure

background light intensity, which would make it possible to determine runway visual range with greater accuracy, has been dragged out for many years. The development and introduction of meteorological subsystems for automated UVD [ATC] systems are not being given the attention they deserve.

When an aircraft turns back and lands at an airport that is not its destination, this is because of an unjustified weather forecast, as a rule. Reviews of these forecasts indicate that weather forecasters are not analyzing the materials at their disposal adequately, they are not taking advantage of airports' local features, weather data is gathered in flight formally, and the information obtained is not being utilized operationally.

A number of the shortcomings in aviation weather support are related to the failure of aviation enterprise managers to carry out their responsibilities. As an example, visibility markers [shchity-orientiry] for the airport's landing and takeoff minimums have not been installed or lighted for several years at Okha, Shenkursk, Velikiye Luki, Namangan, Neglinka, Vaskovo, Karpogory, Novgorod, Kutaisi, Smolensk, and many other airports. This is mentioned every year in verification materials or analyses of the status of aviation weather support, but the command and management personnel at aviation enterprises are not taking steps to correct the shortcomings.

Weather radar facilities are unreliable. Many of them need to be replaced, since about 90 percent of the ones that have been established have been operating for over 10 years. However, the Capital Construction Administration of the Ministry of Civil Aviation is not allocating funds specifically for the construction and renovation of buildings for radar facilities. As a result of many months of coordination, the consent of civil aviation administrations and the UKS [Capital Construction Administration] has been obtained to install no more than three or four per year, or 3 percent of the total number that are subject to replacement.

The landing minimums can be reduced at many airports, thereby increasing the regularity of flights, but this work is being held up by the lack of communication links for weather instruments or the failure to set them aside.

There are resources for increasing the regularity of flights, and they are well known. They include the fulfillment of mutual commitments between the Ministry of Civil Aviation and the Goskomgidromet and between the civil aviation administrations and the UGKS [Hydrometeorology and Environmental Monitoring Administration], improvement in the quality of forecasting work, searching for new forms and methods of aviation weather support by taking advantage of foreign experience, disciplined and efficient work by all units...

One thing is missing: making use of these resources. Ensuring that the number of aborted flights and landings at alternate airports caused by aviation weather stations and centers is reduced to a minimum, as they know how to do in the Azerbaijan, Estonian and Volga Administrations and UGKS's, the Leningrad Administration, and the Northwestern UGKS.

From the editorial staff: So one viewpoint on the quality of aviation weather support has been expressed. We would like to have all interested sides speak out on this important problem, including the Goskomgidromet employees. So that we hear this airport announcement as seldom as possible: "The flight is delayed because of weather until..."

Collegium Examines Flight Safety Issue
18290020b Moscow VOZDUSHNYY TRANSPORT in Russian 27 Sep 88 p 2

[Unattributed report under the rubric "From the MGA [Ministry of Civil Aviation] Collegium": "Flight Safety: New Approaches Are Needed"]

[Text] Flight safety. This is the conception, or more accurately, the most important task, which is facing the aviation sector and which is inherent in the activity of all its services. This task predominates over such important elements of every self-supporting sector as commercial benefit and economic success. The ground services, repair plants, educational and scientific institutions and flight specialists' retraining centers cannot operate without it. And of course this task is the one that is most sacred to the crew of any aircraft, whether it is an An-2 or a giant Il-86.

This is why all activity by subunits begins and ends with this critical problem. This is why the sector's headquarters—the Ministry of Civil Aviation—continues taking the pulse which reflects the good or poor health of flying work from the viewpoint of flight safety. Only a partial listing of the most important documents and measures over the past several years is enough to provide a good idea of the concern of managers and flight specialists about the effectiveness of their daily activities. This includes the Special-Purpose Program for Increasing Civil Aviation Flight Safety up to 1990 and nine decrees by the ministry collegium and the USSR Gosavianadzor [Flight Safety of Civil Aviation Commission], and it also includes a comprehensive interdepartmental program to increase aviation equipment reliability and improve the organization of flying work as well as 40 plans and programs. A great deal has been done under these plans, it was stated at the last Ministry of Civil Aviation Collegium.

But we are living in a century of accurate assessments, and a fair question naturally arises for the reader: just what is "a great deal" with respect to flight safety? Those who spoke at the collegium attempted to explain this definition by agreeing that our safety indicator is

somewhere on a level with the average figures for the world (according to ICAO [International Civil Aviation Organization] statistics) but somewhat worse than the level for airlines in the United States.

Indicators such as this cannot satisfy anyone, naturally. This is why the collegium is concerned in general. This is why before this meeting the ministry reexamined the system of managing all flying work "from the center," new people with practical but untypical ideas have come into the leadership, the old structure is being broken, hundreds of old regulatory documents have been reviewed, and new relationships are being established with the local flight services. At today's collegium there is a new step by a young structural subunit, the GlavULS [presumably: Flight Service Main Administration], and the program responsible for its activity is promulgated by Deputy Minister of Civil Aviation A. Goryashko.

It must be said that both the wording of the problem itself and the directions and trends to fundamentally change the flight support system that were proposed for discussion are at least involving the majority in meditation and actions if not making everyone agree with everything right away. This was the reaction it was easy to sense at the collegium.

The fact that the causes of serious aviation accidents and emergencies that were carefully analyzed and became the subject of realistic findings formed the basis for the new directions is a source of hope.

But this impression is created: it was brought to light only today that flight methods work is not being conducted satisfactorily in the administrations and that means of objective control are being poorly utilized. Or there are these alarming figures: 36 percent of command flight personnel do not have a higher education, cockpit personnel are sent "to the ends of the earth" for simulator training, and 70 percent of the aviation accidents are caused by flight activities. Has this really become known only today?

All this has been known to everyone in the sector (and to its headquarters) all the time, of course. But one fact was somewhat surprising. Essentially that reinforcing the activity of command flight personnel does not always have an effect on increasing safety. A paradox?! Of course. Very serious miscalculations in organization, in the very essence of managers' organizational and preventive work, are concealed right here. There is quantity but no quality. So new approaches in organizing flight operations activity are needed. And they have been incorporated in the measures being worked out.

The fact that an orderly system of scientific support for flight operations does not actually exist was a crucial finding at the collegium. One more contradiction? How can it be that there is no scientific support when large scientific centers are operating at capacity in the sector? It turns out that of all the allocations for science, only 1.3

percent of the millions of rubles earmarked are being financed for the flight operations program and out of 45 scientific research operations for 1988 only 15 percent are somehow related to the organization of flying activity.

Decree No 64 of the Ministry of Civil Aviation collegium adopted 13 August 1987 confirmed the necessity for concentrating scientific efforts on flight activity. This requirement has not been carried out, however.

Economy, on the other hand, is leading to deplorable results. Ministry specialists feel that it would have been more sensible to invest those millions of rubles which become irreplaceable losses when there are catastrophes in the development of important directions to ensure flight safety. After all, it is a shame to admit it, but civil aviation educational institutions are poorly equipped with modern technical training facilities now. The processes of flying activity need to be automated, and the simulator equipment which is available for training crews is far from perfect.

The equipment probably will be acquired in the name of human life, nevertheless, and Aeroflot would rather receive its earned foreign exchange allowances in order to appear from the outside and from within not only as a major airline, but a modern one as well.

It is good that aviation will receive the necessary technical support in any case, we say. Without this we cannot fly farther and higher, and hundreds of millions of persons cannot be transported, either. But there are also troubles that are paid for not by excessively expensive allowances and not by foreign exchange, but by the salaries of command and management personnel, troubles which are becoming a professional, party, and finally a civilian debt. The point is that there are still a considerable number of accidents that were caused by flight specialists' lack of discipline. This is a new paradox: aviation and a lack of discipline... Frankly speaking, in conversations with foreign crews, we cannot understand each other for long when we ask them questions about "drunken" and disciplinary problems. They cannot even mentally conceive of the situations that we are doing battle with today.

The collegium mentioned a number of practical steps to study the influence of the human factor on flight safety. New approaches were outlined in the system of organizing the professional training of cockpit personnel and evaluating their level of knowledge. It is thought to be good that the decision was made to abolish the pre-flight medical examinations as part of the aviation work at the home base. Now the commander himself will answer for this decision, and how he maintains order without all sorts of paper work depends on his own preparation and authority. And the ministry has the important task of raising the authority and responsibility of commanders.

The ministry's new flight service must get around to everything. Otherwise safety will again be in larger or smaller percentages. There is also the problem of retraining several thousand pilots of small aircraft which the economic reform takes from work and reinforcement of the air navigation service. And if we are speaking about the reform, there is another very dangerous problem for aviation here, as the collegium mentioned.

The point is that a principal condition for operating under the new economic mechanism is the strictest prohibition against building cost accounting to the detriment of flight safety. But unfortunately, this indisputable condition is not always observed in local areas. For the sake of a quick profit, the Far East, Volga and Ukrainian Administrations have declined to lease communications channels, and the airports at Dushanbe, Kutaisi, Amderma, Brest and Vitebsk (they serve as alternate airports for a number of routes) are refusing to operate at night. In order to economize manpower, airports at Magadan and Novyy Urengoy are excluded from the short-range navigation system, and the RLS [radar facilities] are excluded from the operating schedule on days off in the North Caucasus Administration. Alarming entries about dangerous near misses [sblizheniya] blamed on traffic control services, which also decided to institute economies at the cost of flight safety, have once again appeared in a listing of the sector's emergencies.

In an investigation of the air disaster involving an L-410 near the Bogdarin airport (East Siberian Administration), it was revealed that with a normal complement of 1,020 in the traffic service, it was staffed with only 707 employees at the moment of the tragedy. And this is not the only case. Aviation enterprises are refusing to purchase technical facilities and equipment and are stopping radar operation in order to economize electricity...

The complaints made by the collegium against the level of meteorological support for aviation were enormous (let us not fear this word). And this means the Goskomgidromet [State Committee for Hydrometeorology and Environmental Control]. It was stated this way: "Review the general agreement with the Goskomgidromet..."

At the same time, the collegium came out in support of the sensible expenditure of funds to acquire equipment. In a number of cases, it does not meet the current level on an elementary basis, for power consumption, and reliability. The "Strela" and "Spektr" AS UVD [automated air traffic control systems] serve as an example. They are five times as expensive as the versions being used, their installation requires considerable capital investment, and their operation requires more personnel to handle them.

Many impartial conclusions were drawn in evaluating the activity of the services responsible for the reliability of aviation equipment. Idle aircraft waiting for servicing because of the lack of technical personnel have become the norm. Hence there is haste and deficiencies are permitted...

We were unable to cover all of the collegium's work. The decree adopted and a number of documents that are being prepared will accomplish this. But inasmuch as we have named 10 points as the program of the new leadership of the ministry's flight service, let us try to summarize them: scientific and technical support for the organization of flying work and aircraft operation, provision for flight safety, and establishment at the Ulyanovsk CEMA Civil Aviation Center of a flight department for the development and improvement of documentation on aircraft operation. Reestablishment of a school for instructors and unit commanders, the structure of crews using foreign experience, review of the system of training and increasing skill, discipline reinforcement, and the problem of combining the positions of squadron commanders and deputy commanders with navigator positions in PANKh [use of aircraft in the national economy] squadrons are also included here, and it has become necessary to accelerate development of sectorial standards for the flight detachment, the ATB [aircraft maintenance base] and the ground services.

* * *

The collegium reviewed the draft of measures to implement the decisions of the 19th All-Union Party Conference and the July (1988) Plenum of the CPSU Central Committee. It appeared as a supplement and development of the sectorial program for the 12th Five-Year Plan, worked out to execute the decisions of the 27th CPSU Congress, and includes a number of measures aimed at improving the economic mechanism and the sector's structure, at expanding and intensifying the processes of democratization and glasnost, and at accelerating the overall development of aviation enterprises' infrastructures.

The draft provides an organizational arrangement of the forms and methods of training and propagandizing the conference materials, including through a system of political and economic studies. The sector's mass media—the newspaper VOZDUSHNYY TRANSPORT and the journal GRAZHDANSKAYA AVIATSIYA—are given an important place in this work with respect to summarizing and disseminating advanced experience under the new conditions of economic operation, and organizing the STK [possibly: labor collective council] as an organ of collective leadership.

The measures of the Economic Main Administration, which cover a combination of problems associated with improvement in the economic mechanism and increased air transport efficiency, have been widely introduced. All this helps in implementing the CPSU Central Committee requirements—to enter the 13th Five-Year Plan with an economic mechanism that has been perfected as a whole. Hence the questions of organizing and perfecting internal economic accounting and measures to improve financial and credit relationships have been incorporated in the plan draft. Considerable attention is being devoted to proposals aimed at speeding up the transition

of all the sector's subunits to the new rates and salaries in conformity with Decree No 1115 of the CPSU Central Committee, the USSR Council of Ministers, and the AUCCTU. An important place has been assigned to the ministry's structural commission on the problems of further improving the sector's management system.

The draft of the plan includes measures related to flight safety, improvement in the quality of passenger and customer service, the introduction of new aircraft and advanced technology. A number of measures are aimed at implementation of the party conference resolutions on democratization of our society, the struggle against bureaucratism, and eradicating command and administrative methods of management. Problems related to the sector's personnel policy, professional training, and the ideological and moral education of personnel are given particular attention.

The collegium considers it necessary for the managers of administrations, enterprises and organizations, and educational institutions of the sector in local areas, together with departments and STK's, to cope with the tasks facing the labor collectives they supervise, and above all, of course, to ensure that the 19th Party Conference requirements are carried out in deeds, not in words. The questions and suggestions raised by party conference delegates which should be handled under the strict supervision of the appropriate officials (in accordance with their affiliation) and the party committee of the ministry staff are included in a separate section of the plan. It is advisable to adhere to this same principle in the local areas as well. There is no doubt that the draft of measures should be enriched and developed by organizational and political work in each labor collective and each party organization, and in this connection, the Political Administration is drawing the attention of the managers of administrations, enterprises and organizations and the chiefs of the sector's political departments and political organs to the fact that they are personally responsible for implementation of the party conference decisions. The reporting and election campaign being conducted in party organizations has to be utilized to the best advantage to increase the personal responsibility of each aviation worker for flight safety, the quality of service, and assimilation of capital investments—and for the fate of restructuring, because the struggle against dependence and the failure to make exacting demands of specific persons for specific deeds, together with the processes of democratization, is of the foremost political importance today.

The system for monitoring implementation is outlined by the draft decree and in the measures themselves:

1. A conference of the sector's party and economic activists is planned for February 1989 with the agenda "On the course of implementing the decisions of the

27th CPSU Congress and the tasks of extending restructuring"; the conference will review the results of work over 3 years of the five-year plan, including progress in carrying out the measures examined by the collegium.

2. In a year, in October 1989, the chiefs of the ministry's administrations (by groups) will report through deputy ministers, in accordance with their specializations, to the ministry collegium on implementation of the plan of measures.

3. The Political Administration considers it necessary to have supervision in this matter organized by the Political Administration of Civil Aviation and the ministry's party committee.

Flight Safety Incidents Reported

18290023a Moscow VOZDUSHNYY TRANSPORT in Russian 10 Sep 88 p 2

[Article by V. Tamarin, special VOZDUSHNYY TRANSPORT correspondent, "Takeoff Without Clearance: Guest Editorial Board Investigates Problems"]

[Text] The hundreds of passengers who took off on Flight 664 from Tashkent to Moscow on 19 June failed to notice that the decision to take off, made by the commander of the Tashkent OAO [Separate Air Detachment] Il-86 airplane was a foolhardy act: the flight engineer reported that the engines had not switched to take-off regime. Only 4 seconds after the airplane left the runway, when only the last few meters of the concrete runway remained to be flown over, the electronic equipment switched the engines to take-off regime without crew intervention, and the Il-86, groaning with the strain, slowly began gaining altitude...Neither the commander or the crew wrote anything about the conditions preceding the air incident in the on-board flight journal, nor did they report it upon returning to Tashkent.

What exactly happened on that flight, which has once again shown the criminally careless attitude of some Il-86 crews toward carrying out their professional responsibilities and even their simple human duties? How is such lack of discipline possible even on an An-2 aircraft, where the crews carry out their in-flight operations independently, and on the airbus, with 350 people sitting behind the pilot? Who, or what, is driving us toward this deadly line?

In August of last year, Il-86 aircraft flew dangerously close to other airplanes on two occasions. The vigilance and caution of the crews and their decisive actions prevented a misfortune. But why was such a thing even possible? Who is responsible for the poor training of the people sitting at the radar screens? Why has the economic support for flight safety been reduced?

Our special correspondent, who has been on assignment in Tashkent, answers these and other questions.

From an examination of deciphered MSRP-256 [flight data recorder] materials, explanatory notes and stenographic notes from interrogation of the crew members. During the pre-flight check of Il-86 aircraft No 86072 on 19 June 1988, after using the built-in control to check out the ESUD-86 [electronic engine control system] in the "maximum" position, Flight Engineer R. Safayev failed to set the engine shut-off switches in the "stop" position, i.e., left them open, in violation of RLE-86 requirements. Nor did he comply with RLE-86 requirements on checking the initial position of the engine control and shut-off signal switches when he checked out the cabin work area. This caused all the ESUD-86 engine switches to remain interlocked in the "normal" regime position.

Having discovered, before the engines were started up, that the shut-off switches were open, the flight engineer thought this of no importance and started the engines without taking them out of interlock, since he was unaware that non-operating engines could be interlocked. In take-off position, on the commander's order, the flight engineer set all the engines in a regime of 0.6 of NOM [rated] in compliance with RLE-86 and began moving them up in pairs to take-off rating. When the engine control levers on the outboard engines are set at the "take-off" limiting position, their parameters do not match the take-off rating, and R. Safayev reported this to the commander. The engine revs and temperature were too low, and the flight engineer could not determine why the engines had not switched into take-off regime.

The commander ordered that the engine control levers for the inboard engines were also to be moved to the "take-off" stop at 31-second intervals. Their parameters also failed to correspond to the take-off regime. Again this was reported to the commander. Another 21 seconds passed. No cause was found for the engines not being in take-off regime, but the flight engineer makes no suggestions. What should be done in such situations? Any aviator complying with the requirements of flight law and knowing that 350 passengers are seated behind him would say, "Taxi back to the parking ramp, find and eliminate the engine malfunction." However, we are dealing with people who fail to comply with the requirements of flying laws. Co-pilot Sh. Rasulov does nothing to control the engines' operating characteristics and acts in a totally passive manner, apparently trusting in the mercy of God or the decision of the commander, whom he does not customarily contradict. So the commander foolishly decided to take off, not trusting the flight engineer's report that the engines were not corresponding to take-off regime. He informed the crew that once all the engine characteristics were identical they would increase power to 288, he released the brake and began his take-off. The crew made not a single objection to these actions.

The take-off run began approximately 150 m from the approach end of the runway. It was done with less acceleration than when running the engines on take-off regime under similar conditions. This made the take-off

run approximately 710 m longer. At the 69th second of the take-off run, and for the 4 seconds prior to the moment the airplane left the runway, when the main undercarriage support shock absorbers released with no intervention on the part of the crew, the ESUD-86 [electronic engine control system] was reset to the "take-off" control setting and the engines went into take-off regime.

There was time during the flight to grasp what had happened and R. Safayev correctly figured out why the engines failed to go into take-off regime and why the ESUD-86 was released. As it was later revealed, he had by and large figured correctly. **But there were no entries about this in the aircraft's flight log-book, and as had been done by others, no report was made to the flight detachment or squadron command upon returning to base.** The violation was discovered when the materials from the flight data recorders were deciphered in the diagnostics laboratory.

The crewmembers acted deceitfully during the inquiry. It is not enough that none of the four persons in the cockpit (add the name of Navigator A. Rozakberdiyev to the three already named) who violated NPP [Air Traffic Regulations] GA-85 (item 2.4.34) informed command personnel about the in-flight violations, but they kept trying to lead the commission away from the truth of a situation which could also have negative consequences for others, who could have drawn incorrect conclusions from incorrect information. And here, we obviously need to discuss not only the poor professional level of the crewmembers, but the conscience of aviators who make so bold as to transport hundreds of passengers on their plane. It is difficult to even imagine what could have happened if the automatic equipment had not switched on during take-off. Instead of this, we would have been discussing the extent of their punishment.

The management of the Uzbek Administration decreed that Commander B. Boltushkin be severely reprimanded and that the No 1 violation coupon on his pilot's license be cancelled. Second Pilot Sh. Rasulov and Flight Engineer R. Safayev were given severe reprimands and Navigator A. Rozakberdiyev was given a reprimand. Opinions concerning this affair were divided: some felt the punishment was too light and liberal for the commander, others assume that all the crewmembers acted with the same degree of responsibility and should thus be given their due, and a third group felt sure that the Main Inspectorate for Flight Security of the MGA [Ministry of Civil Aviation] had "plenty of people" who tacitly agreed with the Administration chief's order.

It is not the degree of punishment we wish to discuss, but why it has become possible to violate flight laws. And whether these violations are accidental. We are trying to get some meaning from a careful reading of the statistics. During the first 6 months of 1987, the UzUGA [Uzbek Civil Aviation Administration] registered 83 air near-accidents (PAP's), 19 of which were caused by the air crews; 8 cases of damage to aircraft (PVS), 6 of which

were caused by the air crews. One An-2 crashed. During the same period in 1988, 59 air near-accidents took place, 15 of which were the fault of the air crews, and there were 5 cases of damage to aircraft, 4 of which were caused by the air crews. An Mi-8 helicopter and an An-2 airplane crashed. Yes, there has been a trend towards a reduced accident rate, but air crews continue to manifest a lack of discipline, and a number of flight specialists have turned out to be very poorly trained in their occupational specialties. As a result, the requirements of the normative documents are either being violated or are not being complied with.

I feel that one of the causes for this has been the continual reshuffling of both the Tashkent OAO [Separate Air Detachment] and the administration itself, with the command-leadership staff. Many air service directors have been drawn into petty intrigues involving filling the offices of first persons in a detachment, the UGA [Civil Aviation Administration] and the UTTs [educational training center]. Work with crews has been done primarily along the single line of finding out whom one should vote for! And violations have been gotten away with on the quiet before the election. They have all been afraid of offending each other and losing "votes". All sense of principle has been stifled and group interests have turned out to be more important than flight laws.

We only managed to have a short talk by telephone with S. B. Boltushkin. One sensed that the events which had happened weighed heavily on his mind, but that he was most disturbed by the fact that publishing the story would provide a "lash" for the "enemies" he had formerly "suppressed" when he was an aviation administration transport department chief, and that they could use it against him. And, he said, the Main Ministry of Civil Aviation Inspectorate wants to look over the documents of the inquiry and the Civil Aviation Administration chief's order again. It was grievous to hear this.

No, this is not simply a case of washing one's dirty linen in public (at the same time, anytime they want to hide instances of incompetent operation of Il-86 aircraft from the press, even the sectorial press, and the facts become the property of a newspaper, they will try their very best to play down the events). Our publishing this story is not frightening off passengers who pay their spare ten-ruble banknotes in Tashkent just to fly, and we are trying to get pilots to focus on the impermissibility of making decisions which make the start of a flight unsafe.

As a rule, the people who fly the Il-86 are first-class, highly-educated specialists. And if they feel bound to possess a highly-developed sense of responsibility, they will doubtless emerge from this affair unscathed even when they have to take action in emergencies. Another example of this can be found in a flight detachment of the same Tashkent Separate Air Detachment. The following occurred on 9 August of this year in the vicinity of the Aktyubinsk Rayon Center of the Unified Flight Control System: Commander G. Shramkov and his crew

took an Il-86 with G. Shatalin, a pilot-instructor and inspecting officer, along. It was a stormy, cloudy night. Altitude: 3,600 m. Suddenly in a break in the clouds, the inspecting officer sees the lights of an aircraft flying ahead and on course with them, at the same altitude. The distance between the airplanes was noticeably diminishing. The Il-86 crew requested information about their "companion" from the UVD [air traffic control] dispatcher, but the dispatcher answered that there were no other aircraft in the vicinity. But the plane kept closing! G. Shatalin made a hard turn to the right, and passed by the departmental An-12 with a 100-m altitude differential at a distance of about 2 km. It was later ascertained that Dispatcher A. Kalekov had been poorly trained and had simply not made sufficient distance allowance. He has been removed from probationary status because of violations. But whom does this help? This is how the ground-to-air network becomes when negligent specialists are allowed to take part in flight security operations.

Another example. Twelve days later, in the area of the Makhachkala VRTs [not further expanded], at an air-route intersection, there occurred a particularly dangerous near-miss of an Il-86 from the Tashkent Separate Air Detachment with a Tu-134. Squadron Inspecting Officer K. Pak had accompanied Commander Kh. Sabirdzhanov on the flight. On the approach to the air-route intersection the crew members, as ordered by the commander, increased their vigilance. Suddenly Inspecting Officer K. Pak spotted a Tu-134 flying to the left and behind them on an accompanying collision course at their altitude. The aircraft was quickly closing with the Il-86. Seeing that a collision of the aircraft was unavoidable in this situation, K. Pak turned sharply to the right and descended. The airplanes passed by each other with a difference in altitude of 100 m and only 10 seconds apart! And that was thanks to the maneuver performed by the crew of the Il-86.

The reason for this close call is: there was no radar monitoring for aircraft flights in the UVD [air traffic control] zone and the space radar was not operating from 7 to 9 am, as it was being adjusted. The RSBN short-range radio navigation system does not operate on Saturdays and Sundays, since no specialists are on duty to maintain it. Similar flagrant violations of flight regulations became possible in other locales as well because of the unsatisfactory work of the administration's command-leadership staff and enterprises in selecting and placing traffic service and radio operating personnel.

Some directors have a generally peculiar understanding of the changeover to cost-accounting: in pursuit of profitability and profits, they commit direct violations of the requirements in the normative documents which ensure flight safety. In plainer language, they make personnel cuts and refuse to lease operating communications channels between air traffic control centers. It has come to our attention that round-the-clock operation of the short-range navigation system at the Magdagachi, Podkamennaya Tunguska, Novyy Urengoy, Makhachkala

and Bryansk airports has ceased. The Far East, Volga and Ukrainian Civil Aviation Administrations have refused to use communications channels between their air traffic control centers. The flight safety situation is especially unfortunate in the North Caucasus Civil Aviation Administration, where there were two dangerous aircraft mid-air close calls in one week. We already mentioned the incident involving the Tashkent-based Il-86. The other occurred on 17 August in the vicinity of the Krasnodar RTs YeS UVD [Rayon Center Unified Air Traffic Control] (Rostov Area Air Traffic Control System) where, during its climb, the course of an Il-86 from the Leningrad Separate Aviation Detachment was intercepted by a group of departmental aircraft. The crew of the Il-86 detected these aircraft visually and they missed each other on intercepting courses at an altitude of 200 m and a distance of 1 km. Several things caused this event, but the primary reasons were the lack of discipline of the departmental aircraft crews and the inadequate interaction between the Krasnodar Rayon Center sectors.

The watchfulness being shown in the air is laudable. But must it really be lacking on the ground. Returning to the precondition of 19 June, we recall that Commander B. Boltushkin's crew was formed on the ground. Everyone knows about this pilot's authoritarian style of command. "The mouse has eaten away the armor...end of communication."—is approximately the manner B. Boltushkin impressed the idea of the infallibility of his actions on his crew. And what is astonishing is that this absurdity was taken as truth. And if in their hearts they did not go along with this, neither did they object or protest. How this command style differs from the atmosphere of interaction and mutual understanding which Il-86 commanders G. Shramkov, Kh. Sabirdzhanov, J. Kamalov, U. Taymetov and others create in their crews! Somehow for me, the stories of B. Boltushkin's high intellectual potential evaporated when I learned that he had decided to take off even though he had no right to do so. Somehow, the noble and decisive actions of his colleagues, who saved hundreds of people's lives, shine more brightly against his background. And in fact, all of them work in the same detachment. In the same administration. In the same branch.

New Aviation Company Founders Interviewed
18290029a Moscow VOZDUSHNYY TRANSPORT in Russian 17 Sep 88 p 2

[Interview with V. Drovovoz, first deputy chief of the LaUGA [Latvian Administration of Civil Aviation]; M. Maksimenko, chairman of the NTKF [Scientific and Technical Cooperative Firm] "Inzhener"; Ye. Sverbilov, commercial director of the NTKF "Inzhener"; and N. Komordin, assistant to the chief of the LaUGA, by VOZDUSHNYY TRANSPORT correspondent V. Ksenofontov under the "Round Table Discussion" rubric: "'Avialat' Looks to the Future"; first paragraph is editorial introduction]

Text] "'Avialat,' the first commercial airline in the USSR based on cooperative principles, has been established in

Riga..." The wire services spread this report around the world in a short period of time, giving rise to a large number of contradictory rumors. Readers began calling the editorial office the next day with the same question: "What is this new airline?" Our correspondent asked the managers of the organizations that founded "Avialat"—the Latvian Administration of Civil Aviation and the interdepartmental Scientific and Technical Cooperative Firm "Inzhener"—to respond to this and a number of other questions.

[V. Ksenofontov] Why did the idea of creating such an airline arise right here, in Latvia?

[V. Drovovoz] In my view, this was bound to happen sooner or later, since the idea of the need to develop the new economic principles of management in the sector were already "airborne." The decisions of the last party plenums and the Laws on the State Enterprise and Cooperatives in the USSR provided broad opportunities for initiative by the workers. The uniqueness of Riga as an aviation center also should be recognized as an important factor. After all, a number of major civil aviation organizations with their scientific and production potential are concentrated here. These include the RKIIGA, TsNII ASU [Riga Institute of Civil Aviation Engineers imeni Leninskiy Komsomol, Central Scientific Research Institute of Automated Control Systems], the RLTU GA [expansion unknown; possibly new civil aviation administration in Riga], Plant No 85, and the Riga branch of the GosNII GA [State Civil Aviation Scientific Research Institute]. Also take into account the region's practically unlimited opportunities for tourism, including foreign tourism. And the influx of those who want to visit the republic is increasing sharply all the time. While foreign tourists were sold 75,000 air tickets last year, this figure has increased sixfold this year. And it has to be realized that Riga's main ticket office cannot cope with this influx. It even becomes amusing. I recently witnessed such a scene. A respectable gentleman asks the Aeroflot ticket office to sell him a ticket to Leningrad: "How many dollars must I pay?" "Exchange them in the bank first for rubles," the cashier says impassively. "But after all, this is hard currency, accepted throughout the world!" "Only not with us," the woman at the cashier's window counters coolly. And there are plenty of such examples of all kinds of restrictions and inconveniences. Participation in "Avialat" by our partner—the "Inzhener" firm—will help to remove many of these problems which have accumulated over the preceding decades.

[V. Ksenofontov] In May this year the newspaper acquainted readers with the successes achieved by "Inzhener," which at that time had the status of an introductory cooperative. What has changed over these months?

[M. Maksimenko] Every month has been like a year for the rapidly developing cooperative movement, following the adoption of the Law on Cooperatives in the USSR. It

may be stated without exaggeration that the count is in hours; after all, the competition will not wait. Under such competitive conditions the consumer, who finally has the opportunity to choose, always wins. Party and soviet leaders in the republic, who have granted the firm the right to contractual collaboration with state enterprises, kolkhozes and public organizations, understand and support this. We are now operating within the framework of a state-cooperative form of economic operation. We have concluded general agreements with the LaSSR Academy of Sciences, the Latvian Komsomol Central Committee, and the Riga Gorispolkom.

The principle of interdepartmental operation makes it possible to act more boldly, in a more uninhibited manner. The great number of instructions and norms which have long been out of date but remain in force, enmeshing enterprises and organizations which have been operating for years within the command and administrative system of subordination that developed, are no obstacle for us. The firm has the right to conduct its production and economic activity independently and to enlist any scientific research collectives and the most skilled specialists in any field to carry out studies on a contractual basis. We have experience in continuing collaboration with organizations such as the Latvian State University imeni P. Stuchka, the NII VEF [Scientific Research Institute of the Riga Electrical Engineering Plant], the Riga Polytechnical Institute, the MINKh [Moscow Institute of the National Economy imeni G. V. Plekhanov], the OLAGA [expansion unknown], and a number of other organizations.

Figuratively speaking, we "sell intellect" and help the true professionals in their work of realizing their potential to the maximum extent. At the same time, there is no upper limit on salaries; they depend only on the profit acquired. It is no secret to anyone that many of the causes of the problems that have accumulated stem from the fact that those performing a task do not see the connection between the results of their work and their wages. Everything is different with us, and perhaps it is precisely for this reason that the pace of carrying out operations will appear excessively fast to someone.

About 50 branches of different specializations are operating in the firm today, and more than 2,000 specialists are engaged in work in them under contract. "Inzhener" finances over two dozen enterprises, including major ones such as in the project planning and construction of a cooperative market for the city of Riga at an estimated planning cost of 50 million rubles. Or the establishment of an agroindustrial complex in the "Vesturi" Kolkhoz aimed at turning out ecologically clean produce with an annual profit of 12 million rubles. A charter for the country's first innovative commercial bank is waiting for approval in Moscow now, and "Inzhener" has its currency account.

[V. Ksenofontov] We have strayed from the basic theme somewhat, however. What are the firm's plans with respect to "Avialat"?

[Ye. Sverbilov] It is not coincidental that the chairman touched upon other directions in the firm's activity, inasmuch as the basic principle of our work is the acquisition of profit from a combination of services. And air transport will be only one of the links in the overall chain. Let me try to explain with several simple examples. It is common knowledge that fuel is one of the most critical problems in civil aviation. And the problem of shipping with shift crews is even more critical for the Ministries of the Maritime Fleet and the Fish Industry. Every year about 500 flights are made outside the USSR, and their organization is far from perfect. We are undertaking the task of organizing these flights properly, but we will take fuel in payment for them, not money. We will fuel the aircraft which carry prefabricated wooden houses made at our "Agrokoks" enterprise to Azerbaijan and Central Asia. And we will take shipments of fruit from there under contract with markets in the North and the Far East. That is, we want to have mutual accounting on a barter basis and to receive payment in the product in shortest supply.

Our organization is another typical example. Together with "Avialat," we are now working out a detailed concept of the "Naslediye" [heritage] program, which seeks to take full advantage of the Latvian peoples' spiritual and cultural heritage. After all, Latvia's monuments of art and architecture are part of the world's culture, but these treasures are studied very little and they have not been prepared for widespread exhibition. "Inzhener" plans to combine intellectual and physical resources for the purpose of restoring and opening up these cultural treasures more effectively. The ancient castles, country estates, and other architectural monuments that have been restored will attract many tourists. Comfortable motels, campgrounds, and hotels will be built for them, and stores with local handicrafts and restaurants with the national cuisine will be provided for travelers. That is, tourism industry on an international level will be developed. The tourism firm "Riga Tur" is now being established jointly with the Riga branch of Inturist. "Inzhener" is committed to provide the organizational, management, financial and commercial support for its development. As far as "Avialat" is concerned, its role is obvious—to transport both our Soviet and foreign tourists.

[V. Ksenofontov] But after all, isn't Aeroflot already doing this?

[N. Komordin] And as we know, it is not coping with the constantly increasing demand for flights. Under these conditions of scarcity, when people have one thought—how to fly somewhere, the question of improving the quality of service becomes secondary in importance. We are planning to attract customers right here with additional services. Let us say an arrangement such as the organization of "home to resort" tours, where a passenger is taken from his doorway to the ramp of the aircraft and reservations are made in rest homes and holiday hotels.

We are already able to earn our foreign exchange by taking foreign tourists from Riga to Tallin. For the present, we are transporting them at a loss. "Avialat" will give the management 40 percent of the profit, including in foreign exchange, under the contract. Within the framework of the Law on Cooperatives, we will now have the opportunity to open our currency account. "Inzhener" will also assume such complex functions as initiating the objective of transportation and marketing. In its school for managers, it will train highly skilled management specialists and be fully committed to the introduction of an advanced reservations system and its provision with equipment.

[V. Ksenofontov] As far as we understand, "Avialat" is preparing to compete with Aeroflot on international routes, isn't that so?

[Ye. Sverbilov] "Inzhener" is now negotiating with a number of foreign firms for the purpose of establishing joint ventures to produce construction materials, furniture, and computers. One of the conditions specified in the contracts will be transportation by "Avialat" aircraft. At the same time, we are prepared even to handle individual flights at a loss, bearing in mind the overall benefit from a transaction. In time, we are also planning to open our own "free shop" for international tourists, following Sheremetyevo's example.

[M. Maksimenko] We are aware of all the responsibility associated with international commercial activity. We are prepared to take part in intergovernmental agreements equally with Aeroflot. As the first business we plan to link Riga with Helsinki and Stockholm, and then with Copenhagen and Cologne, and we will open our offices everywhere, just as in the major cities of the Soviet Union.

[V. Ksenofontov] We pay tribute to the confidence of the managers from "Inzhener" in the success of the enterprise. But what are the obligations which the Latvian Administration of Civil Aviation will assume?

[V. Drovovoz] Under the agreement, we are providing our partners with the necessary production premises, including an entire floor in the administration's building for the company's offices. The Latvian Administration provides the aircraft and ground facilities on a lease basis. At the same time, of course, all types of operations will be carried out on the basis of the Ministry of Civil Aviation's normative documents which are in force. "Avialat" flights will be included in the overall plan, and the airmen will be working under a labor agreement. As far as the international flights and training of crews are concerned, we are planning to send them for retraining to the UTTs TsUMVS [International Air Services Administration Training Center].

[V. Ksenofontov] As we see, real prospects for the company's future activity are already basically apparent to its management. But how do ordinary aviation workers regard this step?

[V. Drovovoz] For the sake of fairness we must say that many viewed the report on establishment of a joint venture guardedly at first. We had to explain the advantages of the new business to people. We went to the services, met with the collectives, and convinced them of the benefit of such a partnership. The possibility of a substantial increase in earnings, and chiefly their materialization, became a particularly forceful argument. After all, "Inzhener" has its own strong construction base at its disposal. And this means that the problem of housing and nursery schools will be resolved. What is more, the airmen will have preemption in purchasing goods carried by "Avialat" and produced by the firm's enterprises. Now, even if we have the means, we cannot sell them for the needs of our workers, but now this possibility is emerging.

"Inzhener" will take part in resolving the problems facing the Latvian Administration of Civil Aviation, such as in the operational testing of the Il-114 aircraft, for example. The firm is also negotiating for the assembly of light aircraft for business transportation. As you see, broad opportunities are being opened up and we have a place to prove our worth. And people have believed in the importance of such an important event which is carried out with their participation and are coming forth with their own suggestions and ideas.

[V. Ksenofontov] When will the new airline's flights begin?

[V. Drovovoz] It is too early to make a promise now. There is a considerable amount of organizational work. But I think you will be able to see the "Avialat" emblem in Moscow as early as the beginning of 1989.

Aviation Center Upgraded to Institute Status
18290029b Moscow VOZDUSHNYY TRANSPORT in Russian 15 Sep 88 p 1

[Article by V. Rzhvskiy, chief of the CEMA Civil Aviation Center and Honored Pilot of the USSR: "Institute Status for the Center"]

[Text] The Institute for Aviation Specialist Skill Improvement and Retraining has been established in Ulyanovsk on the basis of the center for the joint training of flight, technical and controller personnel of CEMA member countries. The sector's main higher educational

institution, where the retraining of the specialists needed for Aeroflot will be conducted, is to be activated.

The structure of the educational institution is being reorganized: teaching staffs for VS [presumably: aircraft] flight operations, UVD [air traffic control], and aircraft technical operation have been established and departments, scientific research laboratories and an information-computer center are being formed. This means qualitative changes in the training process: curricula and programs for all types of training have been worked out, individually programmed training has been provided for, and the role of training in specialized and combined simulators is being significantly increased.

At the same time, it is planned to increase the number of students. In addition to the regular staff and instructors, the supervisors of flight subunits and ATC services will have to undergo training at the center.

The necessity of evaluating the capabilities of sectorial science and the production subunits of Aeroflot in the formation of this new higher educational institution is real at present. As an example, we need a new system for the vocational selection of candidates for training. The problem of the quality of training at the center itself is no less important—specific criteria are required to evaluate the graduates. The customers should speak for themselves here: the GlavULS, TsUVD, GURAT [Flight Service Main Administration, Air Traffic Control Central Administration, Operation and Repair of Aviation Technical Equipment Main Administration], and production subunits. But at present the representatives of aviation enterprises and the ministry are seldom guests even at the final examinations. Meanwhile, this would have made it possible to utilize the center's graduates in production more efficiently, in our opinion.

And this is not the only problem which we can resolve only through our common efforts. The center is faced with work to develop applied program packages and training programs for all disciplines. On the one hand, this will help in introducing the principle of individual training, and on the other hand it will reduce expenditures for it. But there are few computers available, and it has been difficult to make use of them because of the lack of floppy disks. Not only computer hardware but technical literature and printing equipment have become in short supply. But after all, the ministry order to provide the center with the facilities and equipment needed was signed 3 years ago!

We cannot stand on our feet without practical assistance from all the sides concerned. The manufacture of specialized simulators and equipment for the center is being delayed inordinately at civil aviation plants. There have

been urgent requests to the MAP and OKB [Ministry of the Aviation Industry and experimental design bureaus]. The simulators being received by the center are not standardized practically, the assortment is limited, and it is practically impossible to simulate or test crew actions under nonstandard conditions with them. This is why I would like to see the developers make use of the center as their experimental base in the future.

Teaching personnel are a particular concern for us. We have begun inviting specialists from other VUZes as well. At the same time, assistance will be required from our colleagues—the sector's institutes—as well.

At the same, our educational institution will retain its functions as a flight methods center for transport aviation. The conclusion of agreements on collaboration with civil aviation production enterprises and educational institutions is the basis of this activity. This will make it possible to organize the approval of new normative documents and to provide practical assistance in developing and utilizing the flight methods base for UGA [civil aviation administrations].

Granting the CEMA Civil Aviation Center the status of a skill improvement institute imposes a high responsibility on the collective.

Aeroflot Language Training Program Inadequate
18290027 Moscow VOZDUSHNYY TRANSPORT in Russian 29 Sep 88 p 3

[Interview with Mariya Abramovna Mochulskaya, teacher of Uzbek Administration Training Center, by V. Tseyukov (Tashkent): "But Do You Speak English?"]

[Text] Imagine that during the landing approach the captain of a modern airliner has heard a nonstandard phrase—a controller's command in the English language. Failure to understand it inevitably would lead to an aircraft disaster....

One of the Aeroflot's severest problems today is language training of the specialists who serve the international lines. The Tashkent airport has gained interesting experience in the short-term training of flight crews in study of the English language.

"What does it consist of?" our correspondent V. Tseyukov asked the author of a new training method, M. Mochulskaya, teacher of the Uzbek Administration-Training Center. "And also, Mariya Abramovna, comment on the above-mentioned case from the point of view of foreign-language teaching."

[M. Mochulskaya] The pilot did not understand a phrase of a foreign aviation company's controller. Why did this happen? The phrase, which was transmitted to the aircraft in a complicated situation, was nonstandard, and so the aircraft commander did not understand its meaning and was not able to ask again quickly. In my view,

the system of three months of training in study of the English language is rather imperfect. One of the reasons is that the emphasis is on the study of a single phraseology alone. That is, our students study not the language as a whole but only certain phrases.

For example, after crossing a state border the captain asks the controller: "Permit me to cross the border," or "Permit me to enter the area." In reply he receives the same answering phrases.

Many consider that it is enough for the pilot to parrot the remarks in order to guarantee safety of flight. But right here is precisely where the danger lies. I am firmly convinced that the pilot cannot be taught to understand the phraseology well without a fluent knowledge of the language. According to ICAO statistics, 17.5 percent of all aircraft accidents in the world occur because of poor language knowledge.

[V. Tseyukov] Who is guilty here: the pupils or the teachers?

[M. Mochulskaya] The system for training pilots, and the teachers themselves are floundering. Moreover, Aeroflot has no single methodological center that coordinates training of and control over the English-language knowledge of the appropriate aviation personnel. Judge for yourself: the interval between flights abroad for a pilot can be five years. However, in case of sudden necessity one can be sent on a flight. And he has behind him only the foreign-language courses at the UTTs [Uzbek Training Center].

And what is the main thing in training English-language teachers themselves? They are taught basically air navigation and a knowledge of the radio equipment. What kind of grammar and vocabulary is that? Not to speak of the methodology of short-term training.

[V. Tseyukov] What is the essence of the methodology that you have developed, what are its advantages?

[M. Mochulskaya] There is this concept: knowing a language means knowing the daily-living vocabulary. An aviation vocabulary also is needed. Otherwise you do not master the specific phraseology.

The main difficulties in studying any language, including English, are the constant reinforcement of knowledge already gained and unfailing attention to what has

already been learned—daily training. As a rule, the abundance of grammatical rules and the connection among them frighten the student. The methodology I have created will help to solve these problems. Imagine a regular sheet of paper on which all the grammar of the English language has been concentrated. This scheme also serves as a memory for the student. Holding it before his eyes, the one using it can quickly restore in his memory the material that has been gone over. There is still another advantage: the entire grammar can be taught in an example in the use of three to five verbs. And then he gets, while studying, a grasp of the words themselves, that is, he builds up a vocabulary.

[V. Tseyukov] How, in your opinion, can this progressive method be introduced more rapidly?

[M. Mokchulskaya] By the old proven method. It must be propagated. Put out a separate booklet or publish it in periodicals. I consider that Aeroflot's interested services should promote in every way the development of independent, individualized mastery of the English language, based on an aviation vocabulary. In order to make more effective use of all the English-language literature that comes to us, the pilot should be able to read the maps of the Jeppsen firm and ICAO documents, so that if necessary he will understand cursive and what he hears in the English language.

EXPERIMENTAL SYSTEMS

Magnetic Suspension Transport System Reviewed 18290013 Yerevan *KOMMUNIST* in Russian 9 Aug 88 p 1

[Article by S. Markosyan: "The Pace of 'TEMP' is Picking up"]

[Text] The first report about the start of construction of the country's first magnetic-suspension based passenger-transport system (TEMP) was published in *KOMMUNIST* in October 1987. What is new about the route today, asks a reader of the paper. The editorial board charged its correspondent with answering this question.

The day before and all night it had rained. We walked along the route of the future road, getting bogged down in the clay soil. But the work follows its normal course. The footings under the supports.... The first, second, and third, they are already ready—there are 15 of them. Each has up to 40 cubic meters of high-strength reinforced concrete.

The bridgebuilders of MO-104 [Bridgebuilding Detachment No 104] have arrived from Moscow to help Yerevan bridgebuilding detachment No 107 specialists: the footings for 22 supports for the road's spanning structure will rest on piles—this is dictated by the land's geology. The Muscovites are equipped with the latest machinery—a piledriver more than 30 meters high. There are 120 piles—tubular reinforced concrete, 60 centimeters in diameter. The 12 piles under each footing have already been driven into the ground.

"Precision in placing the piles is necessary, and it is being observed," says surveyor Armen Asatryan.

There were not many people around when the footings were being erected, only as many as the amount of work required. Khachik Azizyan's brigade is working here. "There are no complaints against the brigade," inspecting engineer Vladimir Minasbekyan concludes after examining the next foundation pit and formwork and the reinforcements in it, "and the work corresponds to the drawings."

The board's chief engineer, Rudolf Ambardaryan, gives clarification during the inspection of the construction site, which stretches out for almost a kilometer.

"Here is a building along the route—the traction substation. The constructional part is ready, the equipment has been ordered, installation will come next year. A hangar-depot will be here, alongside the engineering laboratory building—the system's testing base."

Equipment operators of Mechanized Column No 117, the same one that built the Idzhevan-Razdan road, are working on the approaches to the town of Abovyan. They have "cut off" a part of a mountain—about

100,000 cubic meters of soil have been excavated. Installers of the Ministry of Communications have moved communications lines, and electricians of Armergosetstroy [Trust for the Construction of Power-Grid Installations in Armenia], helped by the general contractor, SU-916 [Construction Administration No 916] of Armtransstroy [Armenian Transport Construction Trust], have shifted the LEP's [power lines]. The path of the high-speed line has been cleared, 16 families have been removed from their homes out of the 30 subject to demolition. The republic's Council of Ministers and the ispolkom of the Abovyan town soviet decided this important question expeditiously.

The general contractor is building still another facility for the project at the production base of Bridgebuilding Detachment No 107—a new plant for special reinforced-concrete constructional structure. We came to the high shore of Razdan, where the installation of covering trusses for the 100-meter molding department is going on. The A-shaped supports for the road will be made here, and then also the beams—spanning structure of boxlike form 24 meters long and weighing 80 tons each.

We are accustomed to calling everything that is unusual "unique." Without getting carried away with fancy words, I will say: everything that is being done now on the TEMP route will also be done in the next two or three years—for the first time in the country. Here also the molds for the prestressed reinforced-concrete structure will be manufactured for the first time. Their manufacture has been undertaken at an experimental machinery plant of Armglavvodstroy [Main Administration for Land Reclamation and Construction of Water Resources Facilities of the Armenian SSR Council of Ministers] and at Charetsavan's Kaits plant. In brief, the molds for the spanning beams weigh...60 tons, with tolerances that should not exceed two millimeters.

The future road cannot be imagined without details and figures. Nor without also naming the enterprises and organizations that are taking part in this job. Orders for the equipment were placed at many of the country's plants through the republic's Gosplan and Gosstab. Thus, the Kharkov Plant for Elevating and Conveying Machinery undertook to make two 50-ton overhead-traveling cranes, the Yerevan Polytechnical Institute created the 800-meter long experimental Marmarik-1 trestle. The bulk of the equipment, outfitting components and building materials have already been placed at the disposal of the SPKB [Special Design-Development Bureau] of YerPI [Yerevan Design Institute], and financing of installation of the active portion of the track structure is required. Research and experimental design are being performed at other institutes of the country, particularly at VNIPI [All-Union Scientific-Research and Design Institute] of Gidrotuboprovod [State Institute for the Design of Trunk Pipelines] of USSR Minneftegazstroy [Ministry for the Construction of Petroleum and Gas Industry Enterprises] are designing the active portion of the system, and the design and creation

of the magnetic-plane car for 65 passengers and a speed of 250 km/hr on the first experimental section of 3.2 kilometers should be completed before the end of the five-year plan. The erection of this section is planned for the end of 1991.

The basically new type of high-speed and ecologically clean transport is picking up speed at the TEMP construction project. The supervisor of the board for the road which is under construction, Ye. Avetisov, showed

me the reporting data for the first half of the year. Given an annual plan of 1.66 million rubles, 1.2 million rubles have been assimilated since the start of the year, greatly surpassing the schedule. There are draft plans for 1989—3 million rubles, and the amounts of work will double next year.

“The task is difficult and complicated,” says Ye. Avetisov, “but it can be done.”

10

This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, economic, military, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available source; it should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated; those from English-language sources are transcribed, with personal and place names rendered in accordance with FBIS transliteration style.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names rendered phonetically are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source. Passages in boldface or italics are as published.

SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in eight volumes: China, East Europe, Soviet Union, East Asia, Near East & South Asia, Sub-Saharan Africa, Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications, which include approximately 50 regional, worldwide, and topical reports, generally contain less time-sensitive information and are published periodically.

Current DAILY REPORTs and JPRS publications are listed in *Government Reports Announcements* issued semimonthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be

provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. New subscribers should expect a 30-day delay in receipt of the first issue.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcover or microfiche) at no charge through their sponsoring organizations. For additional information or assistance, call FBIS, (202) 338-6735, or write to P.O. Box 2604, Washington, D.C. 20013. Department of Defense consumers are required to submit requests through appropriate command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.)

Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.