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ECONOMIC AFFAIRS

(FOUO 3/82)



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INDUSTRIAL DEVELOPMENT AND PERFORMANCE

EFFECTIVENESS OF USE OF PRODUCTION POTENTIAL

Moscow VOPROSY EKONOMIKI in Russian No 10, Oct 81 pp 120-130

[Article by V. Kuznetsov]

[Text] For the party's economic policy in the period of developed socialism, determination of long-term tasks, consideration of the conditions of economic construction, scientific validation of ways of speeding up economic progress are characteristic features. The highest aim of the party's economic strategy for the '80s, as pointed out at the 26th CPSU Congress, is a steady rise of the material and cultural level of the life of the people, creation of the best conditions for the individual's all-round development on the basis of a continuing rise of efficiency of public production, growth of labor productivity and growth of the social and labor activity of the Soviet people. Its practical achievement will require tremendous resources. The national income used for consumption and accumulation should be increased 1.4-fold by 1990.

The country's economic development over the long term, which means mobilization of resources, will be associated with a whole series of complicating factors. We refer to significant curtailment of growth of labor resources, rise of outlays in connection with the development of the East and the North, growth of expenditures on protection of the environment. There will be required radical rebuilding of old enterprises, construction of roads and accelerated development of transport and communications.

During the 11th Five-Year Plan, it is planned to increase national income by 18-20 percent, output of manufactured products--by 26-28 percent and of agricultural ones--by 12-14 percent. Total volume of capital investment for the five-year plan has been set at 711-730 billion rubles.

Our country has entered the new decade while possessing a mighty scientific-technical and production potential. Tremendous resources are involved in the national economy. National wealth (without land, mineral resources and forests) during 1970-1980 grew from 1.4 to more than 2.7 trillion rubles. The relative share of fixed capital amounted to 62 percent, including producer goods--42 percent, material working capital--17 percent, property of the population--19 percent. During the 10th Five-Year Plan fixed production capital grew by 344 billion rubles. During 1976-1980, it was renewed 38 percent, including 36 percent in industry and 47 percent in agriculture. The capital-labor ratio

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of a person engaged in the sphere of material production, which in 1970 amounted to 5,500 rubles, had almost doubled by 1980, amounting to 10,700 rubles. In industry it grew from 7,100 to 13,400 rubles (87 percent), in agriculture--from 3,400 to 8,500 rubles (142 percent) and in construction--from 2,000 to 4,400 rubles (118 percent).

Compared to the '60s, electric-power production doubled, steel production increased by 460 million tons and production of the chemical and petrochemical industry better than doubled. In 10 years, machine-building production grew 2.7-fold, output of instruments--3.3-fold, computer-technology equipment--ten-fold. During 1971-1980, there were produced in the country more than 5 billion tons of petroleum (including gas condensate), that is as much as in the preceding century; 1.4 billion tons of steel were smelted.

Profound changes occurred in the distribution of productive forces. The natural resources of the eastern and northern regions of the country are being actively involved in national-economic turnover. As a result of the impact of the scientific-technical revolution on the economy, the face of many production operations and entire sectors is rapidly changing. Modernization is proceeding at an accelerated pace in industry. During 1971-1980, new and modernized enterprises provided four-fifths of the growth of industrial production. At those enterprises which have been built, expanded or modernized, production output per worker is almost double to what it was previously.

As a result of the systematic realization of the agrarian policy of the CPSU, a modern material-technical base has been created for agriculture. Fixed agricultural production capital amounts to 212 billion rubles. The capital-labor ratio per worker in agriculture reached 8,400 rubles in 1980; the capital-labor ratio per 100 hectares of agricultural land is 39,000 rubles of worth of fixed capital. Thanks to strengthening of the technical base of agricultural production, even with a curtailed number of workers, the volume of production per hectare grew 1.3-fold in the last 10 years.

The USSR has rich natural resources. Agricultural land amounts to 609 million hectares. Forested area amounts to 792 million hectares (first place in the world); the total stocks of tree plantings amount to 84 billion cubic meters (one-fourth of the world stocks). Our country occupies first place in the world with respect to proved reserves of iron and manganese ores, apatites and natural gas.

The country's production potential is determined by the quantitative and qualitative features of existing production fixed capital, material working capital and labor resources. At the same time, account is taken of availability to the state of natural resources that are necessary for the normal functioning of public production. To ensure fuller and more effective utilization of the production potential means to realize in the complex the most important factors for boosting the productivity of social labor and reducing production labor intensiveness, to utilize with the highest yield fixed production capital (reduction of capital requirements per ruble of output) and to increase the production output of existing raw and other materials while reducing material intensiveness of production.

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The Soviet people are rightly proud of the production potential created in our country. But pride," L.I. Brezhnev said at the 26th CPSU Congress, "must always be accompanied by a sense of high responsibility. Responsibility for the fact that the tremendous potential created by the Soviet People is to be used efficiently, with full return."

Leading collectives of associations and enterprises have accumulated much experience in the struggle for economy of resources and reduction of material intensiveness of production. During 1976-1980 economies of raw and other materials, fuel, power and other objects of labor amounted to 11.4 billion rubles. At the same time, unfortunately, more raw materials and electric power are being expended per unit of national income than would be possible if the best world indicators were considered. Many kinds of machinery and equipment have high material intensiveness, and expenditures of materials on the fabrication of a number of products are great. The existence of large reserves for the economizing and increasing of production of finished products from resources existing in the national economy is shown by cases of inadequate use of resource-saving production processes, incomplete removal of minerals from the bowels of the earth, poor utilization of production wastes and secondary resources, significant losses of metal, fuel, timber, cement, mineral fertilizers and agricultural products in the course of production or storage and slow reduction of production cost and transport expenditures.

The adopted decree of the CPSU Central Committee and the USSR Council of Ministers (30 June 1981) "On Intensifying Work on Economy and Rational Utilization of Raw-Material, Fuel-Power and Other Material Resources" notes that the fulfillment of a broad program of economic and social development of the country designated for the 11th Five-Year Plan and the '80s would require the involvement in production of tremendous raw-material, fuel-power and other material resources. But the acquisition of raw materials and fuel is increasingly more expensive, while reserves of minerals are irreplaceable. The most economically and efficiently possible use of all the types of material resources under these conditions acquires special national-economic importance.

The 26th CPSU Congress set a task of ensuring economy of material resources, introducing progressive norms of expenditure per manufactured product unit, using on a wide scale integrated processing of raw materials, resource saving equipment and low-waste, wastefree and power-saving technology and involving in every possible way local raw and other materials into the cycle of operation and utilizing secondary resources; maximally curtailing the use of food raw materials and other agricultural products for industrial purposes. Thrifty expenditure of raw and other materials, reduction of waste and elimination of losses signify economy of the labor of millions of people and of capital investment, better production results with lower outlays for it and conservation of the natural environment. In the final analysis, all this contributes to the improved well-being of the people. The reduction of solely by half of losses and wastes in metalworking is the equivalent of an increase in the production of finished rolled ferrous metals of 10 percent. Replacement of metal cutting with stamping, pressing and fitting on [nasadka] would make it possible to significantly reduce its expenditure. In machine building, wastes in the course of a year amount on the average to almost 19 million tons, which is the

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equivalent of several billion rubles. Inefficient outlays of metal because of excessive weight of machinery and equipment, unjustifiably high metal intensiveness of products and insufficient use of progressive technology of metal working add up to approximately 15 million tons. Reliable protection of metal against corrosion (for this reason alone losses amount to annually approximately 10-15 million tons, which costs the state 35-40 billion rubles) would permit tremendous economic savings.

Capital investment for the collection and processing of one ton of scrap metal is twenty-fivefold less than the amount of natural raw material needed for the smelting of one ton of cast iron. The use of scrap and wastes of ferrous metals at ferrous-metallurgy plants is the equivalent of the release on an annual basis of 670,000 persons for the national economy as a whole. It was noted at the 26th CPSU Congress that the main directions for the development of ferrous metallurgy involve the radical improvement of the quality and increased production of effective types of metal products. There will be a 1.5-2.5-fold increase in the production of cold-rolled metal plate, rolled products from low-alloy steel, sheet metal and tinplate with protective coatings, cold-rolled strip metal and dynamic steel, shaped and highly precise shapes of rolled metal. The production of economical and special types of steel pipe, metallic powder for the manufacture of items with high resistance to wear, long life and resistance to corrosion is being developed at an accelerated pace. Pouring of steel on continuous-casting machines for the production of billets will reach 35-37 million tons. Together with overcoming shortage of metal, another way--the rationalization of production use--will be introduced. For example, in Chelyabinskaya Oblast, economy of metals at enterprises and construction projects is being achieved on the basis of promising comprehensive programs. At metallurgical enterprises, reequipment is being done for this end of production and progressive production processes are being introduced. As a result, output is being increased and quality is improved of metal products and economical types of rolled products. At user-enterprises, production metal intensiveness is being systematically reduced on the basis of improved design of manufactured items, improvement of their quality and wide-scale use of metalworking progressive technology.

During the current five-year plan, it is planned in machine building and metalworking to reduce the expenditure of rolled ferrous metals by an average of no less than 18-20 percent, steel pipe--10-12 percent, rolled nonferrous metals--9-11 percent and savings of rolled ferrous metals in construction--7-9 percent.

An important direction in more effective use of the production potential lies in efficient employment of energy carriers. The USSR produces annually 2 billion tons of conventional fuel, which is one-fifth of world consumption. A significant portion of fixed production capital is concentrated in sectors of the fuel and power complex. For their development, there are allocated roughly one-third of all state capital investment and significant material and technical resources. During 1965-1979, petroleum production (including gas condensate) increased from 242,888,000 tons to 585,571,000 tons, gas--from 127,666 million cubic meters to 405,597 cubic meters, coal--from 577,731,000 to 718,664,000 tons, and electric-power production--from 507 billion kilowatt-hours to 1,238 billion kilowatt-hours.

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During the 11th Five-Year Plan, the further development and strengthening of the country's fuel and power base is planned. The production of electric power by 1985 is expected to reach 1,550-1,600 billion kilowatt-hours, including 220-225 billion kilowatt hours at atomic electric power stations and 230-235 billion kilowatt-hours at hydroelectric power stations and the production of petroleum (with gas condensate)--620-645 million tons, gas--600-640 billion cubic meters and coal--770-880 million tons. The achievements of the Soviet economy are large determined by the increased efficiency of the extractive industry. The main direction for this lies in accelerated scientific-technical progress, ensuring of thorough and comprehensive processing of minerals, the use of resource-saving equipment and technology and broader use of secondary resources and local raw materials. Greater economy of petroleum, for example, is promised by its improved extraction, conversion of motor transport to diesel and gas fuel and of thermal electric power stations--from coal to gas. The use of energy-saving technologies has made it possible to reduce the expenditure of fuel in the production of electric power by 20 percent, cast iron and steel--12 percent and cement--7 percent. At the same time, losses of fuel, heat and power are still great. Many possibilities exist for economy of electric power in the nonproduction sphere. For consumer needs, 15 percent is expended of the total output of electric power, which is released to the population at the lowest price in the world per kilowatt-hour. A one-percent reduction of electric-power consumption on everyday needs would make it possible to save annually 0.5 billion kilowatt-hours, which is the equivalent of 100 train loads of coal.

The use of secondary energy resources is 2-2.5-fold less expensive than the construction of enterprises which can ensure the production of such a quantity of energy. Secondary resources suitable for use for the national economy as a whole are estimated at 240 million gigacalories. In actuality, only 105 million tons, or 44 percent, are utilized.

In this connection, the experience of enterprises of Kemerovskaya Oblast is of interest. The idea here is the development and consistent realization of concrete programs of reduction of expenditure of fuel, electric and thermal power, reduction of the time for reaching projected norms of reducing outlays of resources and wide-scale introduction of personal economy accounts. During the current five-year plan, provision has been made on the scale of the entire national economy to ensure economy of fuel and power resources in the amount of 160-170 million tons of conventional fuel, including 70-80 million tons from the reduction of expenditure norms.

In the course of realization of the decree of the CPSU Central Committee and the USSR Council of Ministers "On Intensifying Work on the Economy and Rational Use of Raw-Material, Fuel-Power and Other Material Resources" an entire system is being implemented of organizational, scientific-technical, economic and political educational measures, ensuring the launching of a mass movement of workers for all-out economy in industry, agriculture, transport, construction, the nonproduction sphere and in management. At enterprises and construction projects, on kolkhozes and sovkhoses and at institutions and organizations, concrete guidelines are being determined for reducing during the current five-year plan outlays of raw and other materials, fuel and power, curtailing waste, making maximum use of secondary resources and eliminating different kinds of

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losses and the responsibility of specific performers and heads of services and subdivisions is increased for the practical realization of the developed measures.

For the purpose of increasing proved reserves of mineral and raw-material resources, particularly fuel and power resources, work on geological study of the territory of the country will proceed at an accelerated pace. The search for and prospecting of deposits of petroleum and gas in Western and Eastern Siberia, the European part of the USSR, Central Asia and Kazakh SSR is being intensified. The same is true of deposits and easily concentrated ores of ferrous and nonferrous metals, bauxites, phosphorites, coal, fuel shale and raw materials for atomic power engineering and for the production of construction materials and mineral fertilizers as well as the search for and prospecting of subterranean water.

Together with expansion of prospecting for reserves of mineral and raw-material resources, measures have been provided for increasing the efficiency of the extractive industry. We refer to the wider use of petroleum production of new methods of acting on petroleum beds, introduction of gas-lift operation of wells, high-output immersed electric pumps and improvement of the technology of extracting highly viscous and bituminous petroleum. By 1985, up to 85-90 percent of petroleum will be produced at integrated automated fields. At the same time, labor outlays on the servicing of a well will be reduced 15-18 percent. Open-method production of coal will develop at an advancing rate on the basis of wide-scale use of progressive technology and mining transport equipment with greater unit capacity. Subterranean procurement of coal performed hydraulically with its transportation via pipeline will be further developed. The raw-material base of ferrous and nonferrous metallurgy will be strengthened by more complete extraction of components of extracted ores, increased content of iron, manganese and chromium in concentrates, improved technology of extraction and processing of ores and concentrates, accelerated introduction of autogenous, hydrometallurgic, microbiological and other effective production processes as well as the use of machines of large unit capacity.

Accelerated development of the chemical and petrochemical industry will make it possible to have the production of synthetic resins and plastics reach 6-6.25 million tons, and synthetic fibers and thread--1.6 million tons, to increase the production of synthetic rubber, high-quality polymers with given technical characteristics and to more fully satisfy the needs of the national economy for catalysts, preservatives, synthetic fibers, thread and dyes, auxiliary textile substances, detergents, varnishes, paints and packing materials, fat and oil substitutes for industrial purposes, chemical additives for polymer materials and synthesis of pharmaceutical agents.

The rational, economic use of material resources presupposes intensification of the struggle against losses. Developed measures for increasing economic stimulation of those who are able to save public property should meet the requirements of covering all channels of losses.

Special attention is being paid during this five-year plan to the development and production of equipment possessing high efficiency, lower outlays of metal

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and other materials and lower energy intensiveness. In the motor-vehicle industry, it is planned to speed up the development of production of trucks with diesel engines and to increase fuel economy of internal-combustion engines through improvement of their design. The collective of the Moscow Motor-Vehicle Plant imeni I.A. Likhachev has decided on the basis of expansion and deepening of creative cooperation with scientific-research institutes of the country to introduce during the current five-year plan 46 joint developments and to increase the operational life of motor vehicles by 16 percent and that of engines by 20 percent.

The accomplishment of the complex of measures relating to the introduction of low-waste technology will make it possible by the end of the five-year plan to reduce expenditure of rolled ferrous-metal products by 120,000 tons compared to prescribed norms calculated on the basis of annual production output. The fulfillment of adopted commitments for the five-year plan on introduction of the achievements of science and technology will make it possible to produce an economic effect in the national economy of more than 320 million rubles and to save about 500,000 tons of gasoline and 45,000 tons of furnace and boiler fuel.

The USSR State Committee for Science and Technology, the USSR Academy of Sciences, USSR ministries and departments and councils of ministers of union republics have been instructed to stimulate research on urgent problems of scientific and technical progress for the purpose of reducing material intensiveness and energy intensiveness of production. Expansion of production of new types of machinery and equipment with continuous operation, large unit capacity and productivity making it possible to use resources economically, which is characteristic of heavy, transport and power machine building, the electrical equipment industry and other machine-building sectors.

Wide-scale use of resource-saving production processes emerges as one of the most effective methods of reducing material intensiveness of production. In metallurgy, this means the replacement of metal cutting with economical methods of shaping parts, introduction of electric furnaces into casting production and of the method of nonoxidizing heating of metal into forging production and wide-scale use of part rolling mills making it possible to use rolled metal with minimal waste; in machine building--accelerated development of production of complexes of metalworking equipment equipped with automatic manipulators; in light and food industry--the use of highly efficient systems of machines ensuring comprehensive use of agricultural raw materials, reduction of losses in their processing, storage and presentation to the consumer, in the construction materials industry--the introduction of energy-saving technologies in production of cement, glass, lime, economical methods of heat treatment of reinforced concrete, kilning of ceramic articles and effective methods of insulating heat units and using secondary heat. During the current five-year plan, fuller utilization of timber resources will contribute to raising the level of integration of their processing. With an increase in the volume of production output in the sector amounting to 17-19 percent, the production of progressive forms of wood and paper products is developing at an advancing rate. In particular, production of chipboard during the five-year plan will increase approximately 1.5-fold, wood-fiber board and cartons--1.3-1.5 fold, paper pulp--1.3-1.4--fold and paper--20-25 percent.

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An important direction of economic management is the collection and utilization of secondary raw materials. Processing of secondary resources makes it possible to reduce five-tenfold the capital intensiveness and energy intensiveness of products. In 1978, one-fifth of the paper and almost one-half of the cardboard were produced from waste paper (of which 1.9 million tons were used). As a result about 7 million cubic meters of timber were saved, the production of which would have required felling of trees over an area in excess of 100,000 hectares. Such a volume of timber would have been provided by 70 new large timber industry enterprises whose creation would have required one-time capital investment in the amount of 1 billion rubles. Each year thousands of hectares of land are set aside for the burying of solid everyday wastes from cities (40 million tons). At the same time, their contents includes 30-45 percent of paper and cardboard, 5-9 percent of glass, 4-6 percent of textile fabrics, 3-5 percent of metal and 1-3 percent of wood. The utilization of these wastes provides an important ecological and economic effect. For this reason, beginning in 1981, plans of economic and social development for enterprises and associations include a section on assignments of use of secondary raw materials.

Efficient utilization of raw materials and energy carriers acquires even a more pressing importance because many of them are irreplaceable. Major possibilities for more effective use of the available production potential are opened up by intensive use of production capacities, machines, equipment and means of transport. During 1970-1979, the growth rate of the capital-labor ratio in industry amounted to 182 percent, while the growth rate of labor productivity was 152 percent; in agriculture these indicators were 231 percent and 117 percent, respectively.

The lag of the growth rate of labor productivity behind the growth rate of the capital-labor ratio is borne out by insufficiently efficient use of machinery and equipment, workers and power machines, measuring and regulative instruments and devices and means of transport. At many enterprises, machinery and equipment operate only one shift and significant intrashift interruptions are permitted. The 26th CPSU Congress set a task of improving the use of production capacities and fixed capital, raising the shift coefficient of operation of machinery and equipment and creating, while taking into consideration the special features of individual sectors and production operations and using progressive systems of organization of maintenance and modernization of equipment. At the end of 1980, the value of fixed production capital of the national economy amounted to more than 1.1 trillion rubles. With today's scale of production, a growth of output capital in industry of 1 percent is the equivalent of additional production output amounting to roughly 6 billion rubles.

For better utilization of fixed production capital, passports of production associations and enterprises are compiled in accordance with the decree of the CPSU Central Committee and the USSR Council of Ministers on improving the economic mechanism. They show the presence and use of production capacities, the technical organizational level and specialization of production, the quality of manufactured products and also other technical-economic indicators. Passports of production associations and enterprises provide the possibility of significantly raising the level of control over the use of production capacities. This is borne out by the Sumy Machine-Building Association imeni

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M.V. Frunze, where a control system of production capacities has been developed. An audit was made at the association of the machine-tool park, and it was established that it would be possible with two-shift work to fulfill a more intensive program. During the 10th Five-Year Plan, 395 various machine tools were found to be unnecessary at the association's head plant. The freed area was used for the placement of 109 new ones, including those with programmed operation. The chief evaluative criterion is the actual level of use of normative production capacity.

Motivation of collectives of sections and shops is determined on the basis of two criteria: fulfillment of plan targets gives the right to a reward, while its size is computed according to the level of actual utilization of production capacity (compared to the norm). With distribution of economic-stimulation funds, provision is made for redistribution of funds in favor of those collectives of sections and shops which, in fulfilling the plan, make better use of production capacities. Effective use of the production potential just at the Somy association resulted in a saving of 11.5 million rubles of capital investment.

Growth of labor production because of acceleration of the rate of integrated mechanization and automation of production, introduction of scientific labor organization, improvement of training and upgrading of qualifications of cadres and strengthening of labor discipline constitute the decisive condition for raising of the efficiency of public production. Over the course of the last 10 years, productivity of social labor, computed as a ratio of national income to the number of employed in sectors of material production, increased by a factor of 1.5. This was responsible for a greater than 30 percent growth of the national income and ensured an economy of labor of almost 36 million persons. The rise of labor productivity in industry by only 1 percent in 1980 provided with the same number of workers additional production output in excess of 6 billion rubles. During the current five-year plan, it is intended to provide a 17-20-percent growth of labor productivity. In all sectors, it is important to achieve growth of production output at existing enterprises with a stable or even smaller number of employees. It is planned to increase labor productivity of workers in industry by 23-25 percent, in agriculture--by 22-24 percent, in construction--by 15-17 percent and in railroad transport--by 10-12 percent. The fulfillment of intensive targets for growth of labor productivity is dictated by the special features of the country's economic development in the '80s, particularly the sharp reduction of influx of new labor resources with an exceptionally high level of employment of the population (94 percent).

Reduction of production labor intensiveness can be done on the basis of all-possible acceleration of scientific-technical progress in all sectors of the economy. During the current five-year plan, a transition will be systematically carried out of creation and introduction of individual machines and production process for the development, production and mass use of highly efficient systems of machines and equipment for the mechanization of the whole complex of operations--both basic and auxiliary.

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Improvement of the organization, norm setting and stimulation of labor, strengthening of labor discipline and the continued rise in the level of vocational-technical training of cadres are of major importance. Although the sphere of use of qualified, mechanized labor is constantly expanding, at the present time, more than 40 million people are engaged in manual labor in sectors of material production alone, excluding repair work. This results in extensive use of labor resources, creates difficulties in filling work places in connection with an undeviating growth of the level of general-educational and vocational-technical training of workers, especially of young people. The mechanization of manual work rapidly pays for itself and provides a significant social effect. Expenditures on the release of one worker engaged in auxiliary production are on the average one-third less than on the release of a worker from basic production, while one-fifth to one-sixth less of funds are required for the release of an auxiliary worker employed in loading-unloading work.

At the present time, a special-purpose complex program is being developed for reducing the use of manual labor. Enterprises and sectors are assigned special targets in plans of economic and social development. Raising the level of mechanization of materials-handling, loading and unloading and warehousing work will make it possible to save the labor of 1.5-2 million people in 1985. Personnel of Moscow industry have pledged to provide for all production growth during the current five-year plan through higher labor productivity without an increase in the number of workers. As a result of the introduction of mechanization and automation equipment for production at city enterprises, it is planned to reduce the number of workers engaged in manual operation by 20,000 persons in the first year of the five-year plan. Significant labor resources, especially in rural areas, are to be found in the republics of Central Asia and the Transcaucasus.

Full use of the labor potential is also largely determined on how worktime is spent. In order to compensate on the scale of the whole country the loss of only one minute per shift by each worker, it is necessary to bring into the national economy an additional 250,000 persons. In the decree of the CPSU Central Committee, the Presidium of the USSR Supreme Soviet, the USSR Council of Ministers and the AUCCTU "On Further Strengthening of Labor Discipline and Reduction of Cadre Turnover in the National Economy" (1979), it is emphasized that an increase in the scale of production, complication of economic ties and acceleration of scientific-technical progress increase the importance of every hour, every minute of worktime, strict observance of rules of internal order and the creation of stable cadres in each sector of production. The struggle for effective utilization of worktime is a most accessible form of participation of everyone in providing more efficient utilization of the production potential.

Fuller and more efficient utilization of the production potential requires structural changes in the national economy, advancing development of sectors determining scientific-technical progress, balanced development of extractive and processing sectors and improvement of distribution of productive forces on the basis of continued specialization and proportional development of the economies of the union republics and economic regions into a single national-national economic complex for the country. It was pointed out at the 26th CPSU Congress that it is necessary to improve and strengthen in every possible way

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the "upper stories" of the pertinent sectors that largely determine the quality and frequently the quantity of production output. The development of so-called fourth reduction in metallurgy frees millions of tons of metal from the need of mechanical treatment. Wide-scale reequipment of ferrous-metallurgy enterprises provides for intensive development of production of high-precision profiles of sheet metal and tinplate (including the thinnest kind) with durable protective coatings, precision alloys, multilayered pipe and the like. In construction, the importance of finishing work is growing; to a large degree it determines the esthetic appearance and quality of the end construction product; in light industry, final production operations and continuous production processes relating to fabric and knitwear finish will be developed at an accelerated pace.

The efficient utilization of all available resources--labor, fixed capital, fuel and raw materials, products of fields and animal-husbandry farms--is constantly being put by the CPSU at the center of all operational activity. The materials of the 24th, 25th and 26th party congresses and the decisions of a number of plenums of the CPSU Central Committee emphasize that the core of the party's economic policy at the stage of developed socialism is a solicitous, communist attitude on the part of all participants of public production toward the people's property and the ability to utilize the production potential rationally and with high yield. Measures for improving planning and increasing the effect of the economic mechanism on boosting efficiency of production and quality of work being implemented in the country are subordinated to this aim.

The Soviet economy has to be economical--this requirement was recorded by the 26th party congress as one of the fundamental principles of the economic strategy of the CPSU for the '80s. The practical realization of this principle presupposes the development of the initiative of all labor collectives and improvement of the organization of socialist competition. The decree of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee "On the All-Union Socialist Competition for the Successful Fulfillment and Overfulfillment of the Targets of the 11th Five-Year Plan" emphasizes the need to concentrate the efforts of those competing on speeding up growth of labor productivity, improving quality of production, economy of raw and other materials, fuel and electric power, better use of fixed capital and unconditional fulfillment of plans for deliveries of products in prescribed periods and in the product list. The motto of the competition of the current five-year plan is "To work efficiently and qualitatively!" directs millions of the participants of nationwide cooperation of labor to better and fuller use of the production potential.

It is important to launch, it states in the decree of the CPSU Central Committee and the USSR Council of Ministers "On Intensifying Work on Economy and Rational Use of Raw-Material, Fuel-Power and Other Material Resources," a mass movement of workers for all-out economy in industry, agriculture, transport, construction, the nonproduction sphere and management.

In the current five-year plan, the system of mass economic education enters a qualitatively new stage of development. It is characterized by bringing to the forefront problems of rational use of the production potential and acceleration

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of scientific-technical progress. Full use of the production potential is the basis of raising efficiency of production and producing better results with lower outlays and growth of the well-being of workers. Aimed at this today are the scientific-technical and structural policy, management methods, the policy of capital investments, the system of management, planning and stimulation and the initiative of labor collectives.

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INDUSTRIAL DEVELOPMENT AND PERFORMANCE

NORMATIVE NET OUTPUT IN INCREASED PRODUCTION EFFICIENCY

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[Article by L. Rozenova: "Normative Net Output and Increasing Efficiency of Production"]

[Text] Increasing production efficiency and in all ways economizing on material, labor and financial resources are important directions for steadily advancing the national economy that were earmarked by the 26th CPSU Congress. Economizing on all kinds of resources is a complex task whose solution involves the development of science and technology, improvement of price setting, standardization and forms of stimulation and other economic factors that influence economic conditions. In the decree adopted by the CPSU Central Committee and the USSR Council of Ministers concerning economizing on material resources it is noted that the system of administration, planning and incentives should be directed toward economy and efficient utilization of all material resources.

In order to create conditions that contribute to economizing on resources it is very important to apply the appropriate economic indicators in planning, particularly the indicator of normative net output (NChP). As of 1 January 1982, 33 ministries are changing over to the application of the indicator of normative net output in planning industrial production, including all machine building ministries. In the four ministries--the USSR Ministry of Power and Electrification, Ministry of the Petroleum Industry, Ministry of the Gas Industry and the Ministry of Nonferrous Metallurgy--this indicator will be used only at enterprises of the processing industry for the time being. In a number of ministries, particularly the USSR Ministry of Ferrous Metallurgy, the Ministry of the Petroleum Refining and Petrochemical Industry and the Ministry of the Chemical Industry, experimental testing of the indicator of normative net output is being continued. The normatives will be developed in these branches after the results of the experiment have been generalized.

The utilization of the indicator of normative net output and also other measures that have been taken to improve planning make it possible to evaluate with better justification and more objectively the results of the activity of the enterprises and organizations for increasing production efficiency, increasing the productivity of live labor and economizing on labor resources. This is shown by an economic experiment in applying the normative net output in planning that was conducted on a large scale in the branches, associations and enterprises. Measuring labor productivity on the basis of gross output does not adequately reflect the enterprise's

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contribution to increasing its own labor productivity since it includes the results of "outside" labor. The press has extensively elucidated the shortcomings of the traditional "gross" method of planning and accounting for labor productivity at enterprises and associations.

One of the main directions for economizing on labor resources is increasing labor productivity. What with the shortage of labor force, an objective evaluation of labor productivity becomes especially important. The distribution and utilization of labor resources, the development of ways of economizing on them and, consequently, increasing the efficiency of public production depend largely on this.

The normative net output is assigned an essential role in the objective evaluation of labor productivity since expenditures of past labor do not influence its level. In the five-year plans for the economic and social development of industrial ministries, associations and enterprises (with a breakdown for the various years) the new indicator is the basis for establishing indicators for increased net output (normative) and labor productivity. The NChP is also used for calculating capital-output ratio. Normatives for determining the wage fund and controlling its utilization are established in terms of one ruble of NChP.

The main measures of labor productivity, as we know, are the output of products per unit of working time or expenditures of working time on the production of each unit of output. These indicators are calculated in physical units. The quantity of various kinds of products that are produced is measured in value form (in constant prices of the enterprises). Labor productivity in value terms including both past labor that is embodied in raw material, processed materials, semimanufactured products and batching items, and in newly created value essentially characterizes the productivity of public labor. On the basis of the normative net output it is possible to measure only the productivity of live labor. But the growth of the latter in all branches of the national economy, in the final analysis, determines the growth of the productivity of public labor.

The increased role of the normative net output in evaluating labor productivity has brought about the structure of the new indicator and the methodology for determining it. Wages comprised more than half of the structure of the normative net output, and the remainder is profit. The table below gives data concerning the structure of normative net output in the various branches of machine building:

Output	Proportion of Normative Net Output	
	Wages	Profit
1	2	3
Total for machine building	60.0	40.0
including in branches:		
heavy machine building	62.7	37.3
power machine building	50.1	49.9
electrical equipment industry	59.2	40.8
chemical and petroleum machine building	60.3	39.7
instrument making, automation equipment and control systems	59.3	40.7
machine tool and tool building	65.2	34.8

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Output	Proportion of Normative Net Output	
	Wages	Profit
1	2	3
construction, road and municipal		
machine building	63.2	34.8
automotive industry	55.0	45.0
tractor and agricultural machine		
building	54.7	45.3
machine building for animal husbandry		
and fodder production	54.2	45.8
machine building for light and food		
industry and household appliances	65.5	34.5

On an average for machine building wages comprise 60 percent of the volume of the NChP and profit, 40 percent. The deviations from this average level in the various branches is explained by the different structures of expenditures and the formation of profit, taking into account the branch capital-output ratio.

The normative net output is a part of the wholesale price of the item, including wages, deductions for social security and profit. The existing "Methodological Instructions Concerning the Policy for the Development and Application of the Indicator of Net Output (Normative) in Planning"* stipulates that the normative of net output for a specific item is determined by the total of wages and normative profit. In general form, the formula for calculation can be written as follows:

$$HЧП = З_{\text{np}} + З_0 + П_{\text{н}}, \quad (1)$$

where $З_{\text{np}}$ --workers' wages (basic and additional), including deductions for social security in the projected (planned) calculation of the production cost of the item; $З_0$ --the wages of the remaining industrial production personnel for service and administration of production per unit of item; $П_{\text{н}}$ --normative profit per unit of the item.

Net output normatives and wholesale prices are established on the basis of unified calculation and progressive technical-economic norms, and they are of a branch nature. The branch net output normatives, which have the same calculation base as prices, include not just any labor expenditures of a particular enterprise, but the socially necessary normative expenditures on the production of the products that are used in the formation of wholesale prices and provide the greatest economic effect from the production and application of the products. At the Pavlodar Tractor Plant imeni V. I. Lenin, for example, expenditures on the production of tractors with a capacity of 90 horsepower exceed the maximum price level calculated taking into account their technical and economic parameters and efficiency. Therefore the new wholesale prices that went into effect on 1 January 1982 were reduced by more than 10 percent below the level projected by the enterprise and the net output normatives were reduced by 30 percent. Labor expenditures in excess of the necessary norms

*See "Methodological Instructions Concerning the Policy for the Development and Application of the Indicator of Net Output (Normative) in Planning" (in the collection "Improving the Economic Mechanism" Izdatel'stvo "Pravda", 1980, pp 69-79.)

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are not reimbursed either through the price or through the normatives, which makes it possible to economically "punish" the enterprises for wasting labor.

When calculating the normatives, the wages of the production workers ($З_{np}$) are applied at the level that was taken into account in determining the prices in the corresponding article of the calculation per unit of output. As for the wages of workers for service and administration of production ($З_0$), in the calculation per unit of output it is determined with a special coefficient (K_n) which is the same for the enterprise or branch. This coefficient characterizes the ratio between the sum of wages of industrial production personnel for administration and service of production and the wages of production workers. The level of this coefficient depends on a number of factors, among which one should mention the number of workers in the design and technological services, the ratio between the number of auxiliary and basic production workers, and so forth. On an average for machine building it amounts to 1.5.

The established normatives (from formula 1) remain stable throughout the five-year plan. An increase in labor productivity with stable normatives (and, as a rule, with the same number of workers) can be achieved on the basis of economizing on labor resources per unit of output both through reducing the labor-intensiveness of the products that are produced and through reducing losses and utilizing working time better. The reduction of the labor-intensiveness of the products depends on many factors, including improvement of production organization and increasing its technical support, that is, on factors that are related to the concrete activity of the enterprises which is directed toward increasing production efficiency.

The significance of the indicator of net output increases especially when determining the labor productivity of enterprises that manufacture products that use less expensive materials and substitutes. The existing policy for price setting stipulates that when materials that are less expensive than the present ones are used and the product quality remains at the previous level, wholesale prices remain unchanged until the end of the five-year plan.

The utilization of less expensive materials requires, as a rule, additional processing of them, which leads to an increase in the labor-intensiveness of the production of products. For example, the replacement of the lead casing of a long distance cable with a corrugated steel one (while retaining the main technical and economic parameters of the cable) led to a reduction of the weight of one kilometer of cable by 28.5 percent (from 1,105 to 790 kilograms) with a reduction of the production cost by 28 percent (from 948 to 682 rubles). But the labor-intensiveness of the manufacture of the cable in corrugated steel casing increased 1.4-fold as a result of the additional operations for cutting the sheets, welding the casings and applying the polyethylene hose.

In such cases, with the "gross" method of calculation of labor productivity, retaining the existing prices for the cable in lead casing does not fully solve the problem of increasing the motivation of the manufacturer to assimilate a new product using less expensive raw material since labor productivity decreases at the manufacturing enterprise even through the mass of profit increases. Replacing the cable casing with a less expensive one and one that is in greater supply provided

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an annual savings of more than 500,000 rubles for the national economy. But with the "gross" method of calculating labor productivity the interests of the manufacturing enterprise end up in opposition to national economic ones.

But when labor productivity is calculated according to the normative net output it is advantageous for the manufacturing enterprise to produce cable with relatively less expensive materials since the net output normative increases. It reflects the economically justifiable increase in labor expenditures which provides for an economic effect in the production of the cable. It is known that one of the main principles of price setting is the principle of identity of prices for identical products. Therefore the price of the cable remains unchanged since its consumer qualities do not change. And thus the new indicator more objectively takes into account both the savings of labor expenditures on the production of products and the economically justified increase in labor-intensiveness related to savings on material expenditures when materials are replaced with less expensive ones or to the increased technical and economic parameters and effectiveness of the new products.

The changeover from experimental (test) verification of the indicator of normative net output to its planned introduction into economic practice requires that a number of problems be solved, particularly the problem of whether when calculating the NChP for a new product the stable coefficient K_3 taken from the basic price list should be used or whether it should be calculated annually. According to the "Methodological Instructions Concerning the Policy for the Development and Application of the Indicator of Net Output (Normative) in Planning," the coefficient K_3 is used for the same accounting periods in which materials are presented for the substantiation of wholesale prices and normatives, that is, it changes from year to year, which is brought about by the dynamic nature of overhead expenditures in the production of products.

As was already noted, the amount of the coefficient K_3 depends on the number of workers in design and technological services, the ratio between the numbers of auxiliary and basic production workers and on other factors. Would it be correct to increase (or reduce) the volume of net output if, for example, the design bureau were transferred to the books of the enterprise (or transferred to independent books)? Would not the change in the coefficient K_3 lead to unjustified changes in the rates of growth of production and labor productivity? After all the influence of this coefficient on the level of the normative net output is great since the proportion of wages of workers in service and administration comprises more than 40 percent of the NChP.

Further, with mechanization of auxiliary loading-unloading and repair work and a reduction in the number of workers employed in these operations, the wage fund for service for production in the enterprise as a whole can be decreased, which leads to a reduction of the coefficient K_3 . Its reduction can also be brought about by an absolute or relative reduction of expenditures (wages) for administration. In all of these cases, with an economically justified increase in labor-intensiveness during the assimilation of new, more complex and effective items, the normatives for the new products, as a result of the reduction of the coefficient K_3 , can be unjustifiably lower than those for previously assimilated, less labor-intensive

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products, but with a greater K_3 . Therefore it is expedient to keep this coefficient stable throughout the entire period of the five-year plan. On the whole, in our opinion, the role of normatives in economizing on labor resources will be more significant if it is made dependent mainly on changes in labor-intensiveness.

With the application of the indicator of NChP in planning, it becomes especially important to have scientifically substantiated planning of labor. The basis for the development of normatives of net output should be the normative labor-intensiveness which is determined taking into account progressive technology and organization of production. The substantiation of the normatives of net output depends on the quality of the norms, their objectivity and precision. Increased norms lead to additional expenditure of labor resources and the wage fund, and they distort indicators that are calculated on their basis. This is why the changeover to the NChP in planning requires introducing a strict policy in norm setting for labor.

One of the complicated problems in the development of normatives of net output consists in making branch normatives take into account the conditions of cooperation. As we know, the level of labor expenditures at a specific enterprise depends on its cooperation with other enterprises. Moreover the conditions for cooperation at enterprises that manufacture the same kinds of products can differ significantly, which brings about different levels of labor-intensiveness for the same products. Thus manufactured products, for example, fabrics, can be manufactured from one's own yarn and gray cloth, from others' (purchased) yarn and one's own gray cloth, or from others' gray cloth. In all of these cases labor expenditures on the manufacture of the fabric of the same article differ essentially.

In a number of branches (light, food, pulp and paper and others), the normatives are established in terms of limits (for various operations). The overall volume of normative net output is determined by the total of normatives (volumes) from individual limits and kinds of work performed at a specific enterprise. In these cases, with a change in the conditions of cooperation the volume of the normative net output automatically changes (decreases or increases, depending on the internal expenditures of labor and the number of actual stages in the processing at a given enterprise).

In machine building the normatives are determined for the prepared items and take into account conditions of cooperation as of 1 January 1981. The Methodological Instructions stipulate that with a change in conditions of cooperation as compared to those taken into account in the formation of wholesale prices and normatives, the ministries (departments) submit to the agencies that establish the prices proposals for changing the existing normatives. Then, as a rule, no changes should be made in the planning indicators since when the manufacture of components and parts is transferred "outside" instead of being produced internally, the resulting released labor should be provided for in the planned volume of NChP with an increase in the output of assimilated products or through the production of new products.

With complex kinds of products such changes take place almost continually. When there is a shortage of working personnel, especially machine tool operators, many enterprises send orders for processing individual parts and components to other enterprises. And inspection of a number of machine building enterprises that use

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the new indicator in planning shows that the actual expenditures under the article "purchased items and semimanufactured products" for many kinds of items increases as compared to the one used when establishing the normatives 1.5-fold and more, but no changes are made in the volume of the NChP.

No adjustments are made to the normatives for calculating the wage fund either, despite the considerable expansion of cooperation (on the basis of transferring the manufacture of components and parts to other enterprises) and the reduction of internal labor expenditures. The experiment showed that in the stage of development and assimilation of a new item, when the level of normatives is determined, the enterprise was motivated to limit the volume of cooperation in order to plan a high normative. But after the establishment of the normative cooperation was expanded, as a result of which labor expenditures decreased at this enterprise. If changes are not made in the normative, there is an artificial increase in labor productivity and the volume of production which, in turn, causes an overexpenditure of the wage fund since a reduction in the labor-intensiveness of products at the enterprise, in this case, will take place not as a result of an actual reduction of labor expenditures on the basis of improvement of technology or reduction of losses of working time, but as a result of transferring the manufacture of components and parts to other enterprises.

With a change in the conditions of cooperation it is necessary to make adjustments to the normatives of net output. Along with the change in the conditions for cooperation the corresponding additional payments (rebates) should be established for the set normatives. If the transfer of the manufacture of components and parts from one enterprise to another takes place within a single ministry, the additional payments (rebates) can be established by this ministry. But if multibranch cooperation is expanded or the change in the conditions of cooperation is brought about by an increase (reduction) of imported parts, adjustments to the net output normatives should be made by the agencies responsible for questions of price setting.

In order to stimulate economically justified cooperation or the organization of internal production of components and parts, the normative of net output for the final item should be decreased (increased) by the normative established for the corresponding parts, component or batching item that is manufactured at specialized associations and enterprises. Thus, based on labor expenditures at specialized enterprises of the Ministry of the Electrical Equipment Industry, for an asynchronous engine for pumps with a capacity of 32 kilowatts the normative of net output was set in the amount of 112 rubles. Despite the fact that at other enterprises, for example, for pump machine building, the expenditures were 1.2-1.3 times higher, when calculating the normative of net output (additional payment) for the pump with an engine that was produced within the enterprise, the already established normative is taken into account. This avoids excess expenditures that are not economically justified since they are not reimbursed for the manufacturer either in the price or in the normative. This measure is necessary since in a number of cases when the manufacture of components and parts is transferred to other enterprises, expenditures at these enterprises, including labor expenditures, are unjustifiably increased.

Although prices and net output normatives play an important role in the development of specialization and cooperation, the problem cannot be solved through them alone.

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With the transfer of the manufacture of batching items, components and parts to other enterprises and the concentration of production of homogeneous items, it is presumed that the enterprises have more productive special equipment, better organization of labor and production (with an increase in series manufacture of items) and, as a result, reduced production cost.

The application of net output normatives contributes to economizing on material expenditures. As was already noted, the NChP is the indicator that is free of the influence of past labor. It is precisely the neutrality of the new indicator with respect to the material-intensiveness of products that exerts a positive influence on reducing the weight of item (both absolute and relative) per unit of the main parameter in the planning of new items. It is known that the proportion of material expenditures is fraught with significant fluctuations even for the same kinds of products. Thus the proportion of material expenditures in the production cost of computer equipment ranges from 10 to 85 percent. In order for material expenditures not to exert even an indirect influence on the NChP (through profit) greater demands are placed on substantiation in the formation of wholesale prices and normatives of net output. In order not to allow unjustified utilization of costly batching items and parts in the production of machines and equipment or uneconomical replacement of materials, the normative of profitability is calculated as the ratio between profit and production costs minus material expenditures. With this method an increased proportion of "outside" labor does not influence the amount of profit.

For machine building products the normatives of profitability that are used for calculating wholesale prices and normatives of net output have been established on the basis of the normative of profitability (ratio between profit and production capital), whose amount on an average for machine building is 15 percent and provides for obtaining the profit necessary for autonomous financing. The normative of profitability (ratio between profit and production cost minus material expenditures) that is used for determining wholesale prices and normatives of net output ranges from 40 percent (machine building for light and the food industry) to 60 percent (power machine building) with an average amount for machine building of 50 percent.

It should be noted that in a number of branches (instrument building, machine building for light and the food industry and household appliances), in order to ensure equally advantageous production, unified normatives of profitability have been established for all products for production and technical purposes with the exception of spare parts for which the normative has been established that is 1.5-2 times higher than for the other products of the branch (in order to stimulate an expansion of their output). In other branches the normatives of profitability are differentiated for the various groups of profit in order to stimulate a progressive structure of equipment that is produced. Thus the average normative of profitability (ratio between profit and profitability minus the cost of material expenditures) for metal processing equipment is 47 percent, for metal cutting machine tools with numerical programmed control--53 percent, and for automatic forge-presses--60 percent.

Thus if a higher normative of profitability is used for the formation of prices, the same normative is used for determining the NChP. Economic stimulation through the establishment of higher norms of profit included in prices is also carried out through the system of normatives of net output. For example, an increase in the output of spare parts will be advantageous both for the enterprise, since it provides

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a greater profit and a larger volume of normative net output per one ruble of internal expenditures than it does for other products, and for the national economy, since a basis will be created for eliminating the shortage of spare parts.

The policy that has been adopted for determining the profitability in the prices and the NChP of specific items--the ratio between profit and production cost minus the value of utilized materials, raw materials, fuel, energy, semimanufactured products and batching items--neutralizes the motivation of the enterprises to produce products with high material-intensiveness since the economic stimulation of enterprises that are operating with the NChP does not depend on the material-intensiveness of the products or on the "gross." Therefore the enterprises are not motivated to use costly materials and batching items or to produce material-intensive products. Economizing on material expenditures makes it possible to produce above-plan products and, as a result of this, to obtain additional deductions into the economic incentive funds.

From an analysis of the results of an experiment in the Ministry of Heavy Machine Building and the Ministry of Power Machine Building it follows (see table) that in these branches during the years of the Tenth Five-Year Plan expenditures of raw materials, processed materials, semimanufactured products and batching items per one ruble of commercial output decreased. Among the other factors influencing this reduction, in the evaluation of specialists, was the changeover of the branches to planning normative net output.

	Material expenditures per 1 ruble			
	Commercial output		Production cost	
	Kopecks	%	Kopecks	%
Ministry of Heavy Machine Building				
1975	55.2	100.0	64.6	100.0
1980	51.2	92.8	57.6	89.1
Ministry of Power Machine Building				
1975	51.0	100.0	60.9	100.0
1980	48.5	95.1	55.7	91.4

The work experience under the Tenth Five-Year Plan of the Soyuzpoligraf mash all-union industrial association which planned normative net output showed, for example, that the material being assimilated at the Khar'kov Poligraf mash plant has a lower material-intensiveness (not only relative, but also absolute) than do previously assimilated items. At this plant direct material expenditures decreased by more than 10 percent per one ruble of commercial output.

It should be noted that the application of normatives of net output in no way reduces the significance of the wholesale price in the utilization of the economic mechanism since autonomous financing relations can be based only on the wholesale price, which envisions complete reimbursement for economically justified expenditures on the production of products. The stimulating role of prices has increased especially in economizing on material and labor resources. The existing policy for price setting envisions preferential stimulation for the output of new products

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whose economic effect is provided for through a reduction of expenditures on their manufacture.

In the formation of wholesale prices and normatives of net output for new items for production and technical purposes which, in terms of their technical and economic parameters and quality, are equal to or surpass previously produced (replace) items and whose production provides for economizing on material and labor expenditures, one retains the amount of profit obtained from the sale of the previously assimilated products. Moreover, as a result of the economy from the reduction of material-intensiveness of these products and their labor-intensiveness during utilization with more productive methods of processing, the wholesale price for the products of the highest quality category are increased by a higher incentive increment; for products of the first quality category (for which incentive increments, as we know, are not established in addition to the wholesale prices) 50 percent of the savings obtained from reducing material and labor expenditures are included in the wholesale price of the new item.

The system of additional payments (rebates) for changes in the qualitative characteristics of the items, including their material-intensiveness, has become widespread in the practice of price setting. Additional payments and rebates to the normatives of net output have also been developed, depending on the change in the quality of the items and taking into account changes in the expenditures of labor. Thus in order to stimulate the production of high precision billets and to economize on metal, payments in addition to the wholesale prices and normatives of net output have been established for smeltings with this class of precision and thinness. At the same time the list of wholesale prices for smeltings, forged pieces and hot stamped pieces envision punitive rebates from the wholesale prices and normatives of net output for making the billets heavier than they were theoretical to be according to the blueprint.

The NChP is also playing a greater role in increasing the economic motivation of the enterprises to comprehensively process and completely utilize secondary raw material. Motivation for comprehensive utilization of raw material is provided through the establishment of relatively higher normatives for sold wastes, secondary resources and byproducts than for the main product. For example, for sugar the normative of net output is from 8 to 17 percent of the wholesale prices, and for byproducts of the sugar industry (pulp)--30 percent, for vegetable oils--50 percent and for wastes (cakes and oil-seed meal)--50 percent. Additional labor expenditures for the preparation of byproducts for utilization are taken into account by calculating the normatives of net output for these byproducts. The new indicator is having a greater influence on the production of the final products from byproducts of production (purchased and internal). As we know, a single price is established for the production of the final product of equal quality, regardless of whether the given item is obtained from full-value raw material or from byproducts. At the same time, with these byproducts labor-intensiveness is greater than it is than when full-value raw material is used, which entails an incommensurability of procurements and the need for additional processing and other operations.

The existing policy stipulates that the normatives of net output for items manufactured from byproducts be established taking into account their labor-intensiveness as compared to the production of these products from full-value raw material. Consequently, with the changeover to the application of the NChP in planning there is

an increase in the economic incentives of the enterprises to retain and better utilize wastes and byproducts since their proportion in the volume of output calculated in terms of the new indicator increases. All this contributes to economizing on resources, which is especially important with the modern scale of production. Estimating the significance of a thrifty attitude toward the national wealth, L. I. Brezhnev noted at the 26th CPSU Congress: ". . . the pivotal point of the economic policy will be something that would seem to be simple and very ordinary--an economic attitude toward the public good, the ability to utilize everything we have completely and efficiently. The initiative of labor collectives and mass party work should be directed toward this. The technical policy, the policy for capital investments and the system of planning and accounting indicators must be aimed toward this."

The new evaluative indicator that is being used in planning is an important economic indicator. The application of normative net output along with other measures for improving planning and increasing the influence of the economic mechanism on the efficiency and quality of work will make it possible to resolve the problems for the development of production comprehensively and to evaluate the results of the concrete activity of enterprises and organizations with better justification.

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