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Socialism and Wealth

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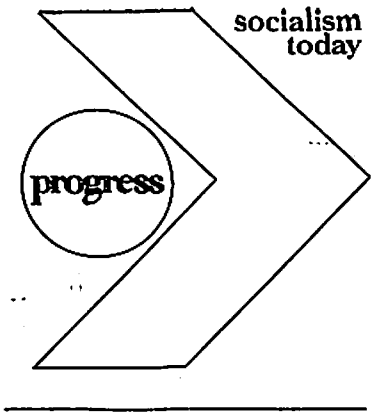
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PREFACE

The problem of wealth has always been the focal point of bourgeois economics, which could broadly be described as the science of capitalist enrichment.

However, bourgeois political economy, even in its classical period when it contained elements of science, since the interests of social progress coincided to a certain extent with the interests of the nascent capitalist class, invariably shrank from revealing the true source of capitalist wealth. The source of that wealth was the exploitation of hired labour and the shameless robbery of whole peoples. In Marx's graphic phrase, nascent capital exuded dirt and blood from all its pores. The ideologists of rising capitalism, far from exposing the unattractive physiognomy of capital, sought to cover it up, which they have been doing with considerable zeal to this day. They portray modern bourgeois society as a "society of universal welfare", while capitalism itself is declared a people's system. For all these attempts to embellish capitalism, the working masses have been stepping up their struggle against bourgeois wealth for a revolutionary change to that genuinely people's system—socialism.

The problem of wealth figures prominently in the works of Marx, Engels and Lenin, those great teachers and leaders of the world's workers. They gave a precise definition of wealth as the accumulation of the results of labour, and showed that the true producers of wealth were the working masses, to whom it should by right belong. Marx wrote in his *Capital*: "Whether a product is fabricated as a commod-

ity or not, it is always a material form of wealth, a use-value intended for individual or productive consumption."[1]

Marx and Engels disclosed the socio-economic content of the material form of wealth and demonstrated that the continued accumulation of capitalist wealth would inevitably bring society to socialist revolution. In *Capital,* Marx passed a death sentence on the exploiter system: "The knell of capitalist private property sounds. The expropriators are expropriated."[2]

In the hundred years since then, bourgeois wealth has been abolished one way or another in several countries of Europe, Asia and America. The struggle against capitalism is gaining momentum, and it will inevitably culminate in the world-wide victory of socialism.

Examining wealth in close connection with the mode of production, Marx, Engels and Lenin paid close attention to what happens to wealth after the victory of the socialist revolution. Their theoretical propositions on this matter, as well as their scientific prognostications, are of special importance for countries which have freed themselves of colonial bondage and are faced with the choice of a road to follow for independent development. The peoples of these countries know to their cost what capitalist wealth means, having starved for many years while they toiled for the enrichment of the colonialists and local exploiters. Marxism-Leninism is a loadstar illuminating the way of the working people to freedom, well-being, and happiness.

At the same time, the theoretical propositions of the founders of Marxism on wealth are as valid as ever today in the period of gradual transition from socialism to communism. This transition implies the creation of a world of abundance through the multiple increase of public wealth as an imperative condition of the well-being and full development of all members of society. Hence the growing public interest in the problem of socialist wealth.

The 24th Congress of the CPSU, which gave considerable attention to this problem, approved the Directives for the Five-Year Economic Development Plan of the USSR for

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[1] Marx, *Capital,* Vol. II, Moscow, 1971, p. 138.
[2] Marx, *Capital,* Vol. I, Moscow, 1972, p. 715.

1971-1975. This extremely important Party document formulates, in concise form, the basic guidelines for constructive efforts by the Soviet people in the ninth five-year period:

"The main task of the five-year plan is to ensure a considerable rise in the living standards and cultural level of the people on the basis of rapid development of socialist production and enhancement of its efficiency, scientific and technological progress and rapid increase in labour productivity."[1]

The solution of this task calls for a clear understanding by each Soviet citizen of his place in the nation-wide work for communism. Socialist wealth is like the ocean, which cannot evaporate, but, on the contrary, becomes fuller and fuller, since it is fed by millions of rivers bearing with them the results of the Soviet people's creative labour. A proper grasp of the nature of the people's wealth, its content, the process of its creation, and ways of adding to it, makes for more purposeful efforts to increase production efficiency. As the decisions of the 24th Congress of the CPSU put it, production efficiency "must become a primary condition of socialist management, the basic content of socialist emulation among all production collectives, the millions of working people".[2]

The present book contains a brief treatment of some of the main problems concerning socialist wealth from the positions of Marxist-Leninist theory and in the light of the recent decisions of the CPSU. The fact that these problems cover an extremely wide territory has hardly been conducive to analysis in depth, and the author of necessity has had to confine himself to factual material drawn primarily from industry. The data as presented cover the Soviet Union as a whole, and individual Union republics.

The author raises a number of new questions which hitherto have been given practically no attention in Soviet socio-economic literature. Among them is the contribution of enterprises to the creation of social wealth, the method of assessing the effectiveness of the production collective in using its opportunities for increasing the country's wealth,

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[1] *24th Congress of the CPSU*, Moscow, 1971, p. 246.
[2] Ibid., p. 322.

the direct dependence of the enterprise's ability to use its economic potential on the level of its organisation, and other questions. The author hopes that his treatment of these subjects will also prove helpful in the current efforts to advance the national economy.

CHAPTER I

WORKING PEOPLE— THE OWNERS OF SOCIALIST WEALTH

DOES SOCIALISM RENOUNCE WEALTH?

After completing their epic non-stop flight from the USSR to the USA in 1937, the three Soviet pilots, V. Chkalov, G. Baidukov and A. Belyakov, were returning to Europe on board the *Normandie,* the French trans-Atlantic liner. Interest in the pilots was enormous, and they were plied with all kinds of questions. One passenger, an American millionaire, asked Chkalov:

"Are you rich?"

"Yes, very."

"What have you got?" persisted the businessman.

"A hundred and seventy million," replied Chkalov.

"A hundred and seventy million what?—rubles or dollars?" asked the American, nonplussed.

"Neither," returned Chkalov. "I have a hundred and seventy million people working for me, just as I'm working for them."

Chkalov's reply contained a profound truth about life in the Soviet Union. To appreciate fully the aptness of the reply we have to establish, first, what is meant by wealth.

Some economists take social wealth to mean the totality of accumulated material wealth, the volume of the aggregate social product produced over a specified period, the available natural resources, and even the climate. Others count as wealth only the accumulated material wealth and the exploited natural resources. This definition is found in almost all textbooks on statistics and political economy. Still others insist that wealth means the accumulated material wealth only.

This disparity of definition springs from the rather loose

formulation of the question: what is wealth? Indeed, what kind of wealth are we talking about? First, there is wealth in the broad sense, which means all the blessings and benefits which people have at their disposal in one form or another, including the bounty of nature, geographical conditions, climate and even human abilities and skills. Second, there is social, public or national (people's) wealth which is indissolubly linked with labour and is conditioned by it. As Marx put it: "Everything which is not the result of human activity, of labour, is nature and, as such, is not social wealth."[1]

Natural resources, although forming the natural basis supporting human existence, can only be regarded as part of social wealth when they are brought into the social cycle.

The capacity of people for work, "the degree of skill of the existing population", was described by Marx as "the principal accumulation of wealth and the most important result of antecedent labour". But he added immediately afterwards that this result exists not of its own accord, but in living labour itself, i.e., it is not wealth, but an active source of wealth.[2]

As for the social product, this represents the totality of the material benefits produced over a definite period and is the most important component of national wealth. The social product increases national wealth by the extent to which production exceeds consumption.

The point is that consumption is inherent in production. Raw materials, fuels and other subjects of labour are used, machines and other instruments of labour wear out, labour power is expended and the goods necessary for its reproduction are consumed. Therefore, an increase in wealth results from the excess of production over consumption and not from just any kind of production.

Wealth is not immobile. On the one hand, it is continually being consumed, while, on the other, it is continually being replenished. The seeming "immobility" of wealth, to use Marx's classic phrase, reminds one of a railway passen-

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[1] Marx, *Theories of Surplus-Value*, Part III, Moscow, 1971, p. 429.
[2] Ibid., p. 295.

ger station, which is "always full, but always full of different travellers".[1] The source of replenishment is the surplus product produced in the course of extended reproduction.

What we mean by wealth is therefore the totality of material and spiritual values accumulated, developed, discovered or adapted for meeting human wants. If the aggregate social product is the sum total of goods produced over a definite period, then national or social wealth is the totality of all material and spiritual values which society has at its disposal at a given point in time, irrespective of when these were produced. For example, in 1960, the Soviet Union's gross aggregate social product amounted to 304 thousand million rubles, while its national wealth, at a tentative estimate, totalled 431 thousand million rubles. Material and spiritual values are critical to the continued existence of human society, with the material wealth playing an all-important part, since all human beings, before they can be scientifically and artistically productive, must understandably have enough to eat and drink, and must have adequate clothes and footwear, living accommodation, and other basic necessities of life.

Depending on their purpose and use, material wealth can be divided into two groups: the means of production (i.e., capital goods) and consumer goods. The former group comprises the instruments of labour and the raw materials which consist of the subjects of labour to which human labour has already been applied to bring them into the production cycle. Consumer goods include food, clothing, footwear, housing, and so on.

Consumer goods are vital for the reproduction of human life. The progress of society as a whole, its economic potential and the size of its wealth are primarily dependent on the production of the means of production. "It is not the articles made, but how they are made, and by what instruments, that enables us to distinguish different economic epochs."[2]

Gold and silver, as the embodiment of world money, are

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[1] Ibid., p. 282.
[2] Marx, *Capital*, Vol. I, p. 175.

also part of material wealth, as are other valuables which constitute treasure. These, in case of need, can function as subjects of labour, consumer goods, and payment media in circulation that can be exchanged for any commodity from oranges to space rockets. It was with good reason that Lenin urged the Soviet people carefully to save and build up the country's gold and currency reserves and use them judiciously in the struggle against capitalism.

As society develops, spiritual values assume growing importance. Spiritual wealth comprises scientific and technological knowledge acquired in the past and every passing year, as well as production know-how and experience. The amount and quality of this wealth is an index of the development level of society's main productive force—the working man.

Works of art, literature, and so forth, are essential to a country's spiritual wealth. During the Great Patriotic War, the Soviet people spared no effort to save their country's cultural wealth from the plundering nazi hordes. The Soviet people clearly realised that in so doing they were saving the national heritage of their country.

Every kind of wealth, whether economic or cultural, is subject to consumption in one form or another. Consumption is, in fact, indispensable to the reproduction process. This being so, to keep society going, all kinds of wealth must be reproduced all the time. What is more, since the progress of a socialist society calls for the ever fuller satisfaction of the material and cultural needs of its members, this wealth must clearly be reproduced in ever increasing quantities. Wealth as such cannot be completely abolished: only its social form and the nature of its acquisition can be changed.

Wealth is indissolubly bound up with ownership, i.e., with the sort of relations that arise among people with respect to the means of production and other forms of wealth.

Ever since private ownership emerged after the disintegration of primitive society some nine thousand years ago, wealth has been invariably concentrated in the hands of a few. The rich have owned the means of production and everything else they needed to maintain their dominance.

Characterising the development of the civilisation dominated by private ownership, Engels wrote: "Naked greed

has been the moving spirit of civilisation from the first day of its existence to the present time; wealth, more wealth and wealth again; wealth, not of society, but of this shabby individual was its sole and determining aim."[1]

Concentration of the means of production and the rest of national wealth in the hands of the bourgeoisie forms the economic basis for the exploitation of hired labour, for turning the working population into a source of capitalist enrichment.

Under bourgeois form of ownership, social wealth takes the specific form of capital. This wealth is represented by the vast amount of commodities concentrated in the hands of a narrow group of exploiters.

In the United States today, for instance, the bulk of the national wealth virtually belongs to two hundred multimillionaire families. As few as sixty of these families are the effective rulers of the USA. At the top of the pyramid is an even narrower group of super-multimillionaires, the "uncrowned kings" of the country, who seek to impose their will on the rest of the world. These financier-monopolist groups, which number 20 to 25, possess over one-third of the capital of all joint-stock companies in the United States. The Morgan group is the biggest of them all, with a family capital of over seven thousand million dollars and controlling an estimated 65 thousand million invested in a variety of industries. The Rockefeller group is not far behind with effective control over a similar amount of joint-stock capital. The Dupont group possesses a capital of over twenty thousand million dollars.

In Britain, the lion's share of the national wealth belongs to two per cent of the property owners. Much the same situation prevails in France and other advanced capitalist countries.

Since bourgeois private ownership reigns supreme, the working man enters the capitalist production process with nothing to offer but his labour power. He comes out of this process with his labour power spent, his only reward being what is absolutely necessary for the restoration of this labour

[1] Marx and Engels, *Selected Works*, in three volumes, Vol. 3, Moscow, 1970, p. 333.

power and for the subsequent production of the surplus value which his capitalist employer disposes of as he sees fit. The working man's personal consumption is but minor item in capitalist reproduction.

When capitalists no longer need labour power, they leave the working people to their own devices, which for most of them means unemployment and poverty. In 1970, despite the relatively large military industrial contracts, the USA had over five million jobless, even according to official figures. The US trade union statistics give seven million as the number of unemployed in the country by late 1971, i.e., eight per cent of the total labour force, with every third able-bodied Negro being out of work already at the start of the year. In Britain, the unemployment rate nears the one million mark, while it topped five hundred thousand in France, where every third male under 25 is out of work.

Just as a century ago, today the working man's sole possession in bourgeois society is his capacity for work. He is compelled to sell his labour to the capitalist employer, whereupon it becomes the latter's property, just like his equipment. Under these circumstances, the working man is his own master only when he rises to struggle against his capitalist bondage.

Socialist revolution puts an end to bourgeois wealth, which condemns the vast majority of the population to the miseries of enslavement by capitalism.

Socialism, however, does not renounce wealth as such. What it does do is to rule out the concentration of wealth in the hands of the wealthy few and prevent the accumulation of wealth through the exploitation of the working masses. This was stated with the utmost clarity in the *Manifesto of the Communist Party* more than 120 years ago: "The distinguishing feature of Communism is not the abolition of property generally, but the abolition of bourgeois property."[1]

By wresting power from the exploiters and making the means of production public property, the socialist revolution makes national wealth the property of the working

[1] Marx and Engels, *Selected Works*, in three volumes, Vol. I, Moscow, 1969, p. 120.

people. The October Socialist Revolution in Russia did just that.

THE NATURE AND COMPOSITION OF SOCIALIST WEALTH

The wealth of a socialist society, as distinct from that of a capitalist society, is not represented solely by the quantity of goods it has at its disposal. Moreover, this wealth is not concentrated in the hands of a minority: it is truly the wealth of the people, and is represented by a diversity of material and spiritual values, many of which are no longer commodities. These values belong either to the whole of the people directly, or to collectives of working people, or to a family or to individual citizens.

In the first instance, the wealth of the Soviet Union is state socialist property. In respect of this wealth, all members of the socialist society are equal. No one can control it individually. The people as a whole are the owners. The state and its authorised agencies control this wealth on behalf of the entire nation.

In the second case, wealth is the property of a collective farm or a co-operative. Members of a collective farm or a consumers' co-operative control such wealth through a general meeting or a meeting of the duly authorised officials or through agencies elected by the members themselves.

When wealth is personally owned by workers, it is controlled by all the members of the family, or by individual citizens.

Thus, socialist wealth is publicly or personally owned. This non-homogeneity of the social form of wealth in the Soviet Union has an objective basis. The extent of the socialisation of wealth depends on the nature of that wealth and the way it is used, on its importance to society, and not on individual preference or caprice.

Speaking at the 24th Congress of the CPSU, A. N. Kosygin, Chairman of the Council of Ministers of the USSR, said: "For the first time in history, socialism is turning the wealth of society into wealth for all members of society. Therein lies one of the causes of the labour heroism of Soviet people, their dedication to the ideals of communism,

one of the pillars of the indestructible unity of the Party and the people."[1]

The revisionists of Marxism advocate the conversion of state socialist ownership into ownership by individual production collectives. If this took place, public ownership by the whole of the people would end, individual enterprises would be opposed to one another, and there would be a revival of commercial rivalry. As a result, economic development would be hampered and the very foundations of socialism would be in jeopardy.

Significantly, state socialist ownership is being fiercely attacked by the Zionists, those arch-enemies of socialism whom international imperialism is using as its chained house-dogs. In expounding "new models of socialism", "market socialism", etc., the Zionists, in the words of Gus Hall, General Secretary of the Communist Party of the USA, use them for building underground ideological tunnels and effecting quiet counter-revolution.

In a socialist society, there should be no opposition between the state and production collectives. In the stage of developed socialism, the state is a national organisation set up by the working people to deal with their common problems and to run social production on a national scale. Until the transition to the higher stage of communism is complete, the efficient management of society's economic, political, social and cultural development can only be made possible by strengthening the people's state under the leadership of the communist party.

Suggestions to transfer industrial enterprises into the hands of individual production collectives are not new. They were made in the early years of Soviet power, when they were rightly qualified as manifestations of anarcho-syndicalism, an opportunist trend within the trade-union movement which is hostile to the interests of the proletariat and which taints the movement with anarchist views and practices. Anarcho-syndicalism rejects the political leadership of the communist party, the vanguard of the working class, denounces the political struggle by the working people and

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[1] *24th Congress of the CPSU*, p. 197.

sees its ultimate objective in the handing over of the means of production to the trade unions or "production collectives". Lenin exposed these suggestions, pointing out that "any direct or indirect legalisation of the rights of ownership of the workers of any given factory or any given trade on their particular production, or of their right to weaken or impede the orders of the state authority, is a flagrant distortion of the basic principles of Soviet power and a complete rejection of socialism. . .".[1]

The socialist state has in its ownership the forms of wealth on which the life of the whole people depends. The working people use this wealth for their common needs. This wealth includes, first and foremost, the basic means of production, such as industrial, agricultural, transport, commercial, public utility and other enterprises. All scientific, cultural, public health and educational institutions with all the values they contain, as well as management bodies, institutions for the maintenance of public order, defence organisations and installations, and material and currency reserves, belong to the people as a whole.

The land—with its fertile soil, forests, minerals and waters—constitutes a specific kind of wealth. Natural resources already in the economic cycle are part of real wealth, while those which are not yet being used constitute potential wealth. For instance, the trees in a wild forest, in Marx's words, are potential use values.

The Soviet Union's territory is 2,240.22 million hectares, of which 2,227.5 million hectares are dry land. As of November 1, 1969, a total of 546.2 million hectares was under cultivation, including 223.3 million hectares of land under the plough. The land is an all-important means of production in agriculture, being the basis for supporting the nation's existence.

Almost one-third—nearly 750 million hectares—of the Soviet Union is covered with forests. The Soviet Union's total timber resources are estimated at some 80,000 million cubic metres.

The Soviet Union is second to none in terms of territory, woods and forests and mineral wealth. Before the Socialist

[1] V. I. Lenin, *Collected Works*, Vol. 42, pp. 100-01.

Revolution of 1917, a mere ten per cent of the country's total area had been surveyed in the geological sense. In 1929, the figure rose to 18 per cent. Today, there is hardly a corner of the Soviet Union's vast territory that has not been surveyed by geologists. The Soviet Union is the world's leader in proved deposits of iron and manganese ores, copper, lead, zinc, nickel, bauxites, tungsten, mercury, sulphur and many other minerals. Between 1966 and 1970 alone (the period of the Eighth Five-Year Plan), the scope of geological exploration expanded by over 33 per cent. More than 170 deposits of liquid and gaseous fuel were discovered. The search for other mineral resources continues unabated. Thanks to the enormous increase in proved natural resources, output in all extractive industries has risen several times over and continues to mount.

Fixed production assets, the bedrock of the whole of social production, are perhaps the most valuable part of this country's national wealth. These include the means of production used for several consecutive production cycles or even over a period of several years, that is to say, industrial plant and equipment, buildings and other production premises, and handling and transport facilities. As of January 1, 1970, their total value was estimated at 422,000 million rubles, i.e., 61.7 per cent of the Soviet Union's total fixed assets.

Since the Third Five-Year Plan (started in 1938), the fixed production assets have been the property of the socialist state. The bulk of these assets are industrial assets (208,000 million rubles), which testifies to the industrial character of the Soviet economic system and to the leading role of socialist industry in the national economy as a whole.

The fixed assets of Soviet agriculture are valued at 84,000 million rubles. These are owned by the state farms, already numbering over 14 thousand, by other state agricultural enterprises, and by the 34.7 thousand collective farms. The latter are co-operative organisations of farmers who have voluntarily united for the purpose of joint large-scale agricultural production based on socialised means of production and on collective labour.

Under the Soviet Constitution, the land has been granted to the collective farms by State Decree and made over to

them in perpetuity and without payment. The land in possession of collective farms, irrespective of whether it is used collectively or as individual (private) plots, is public property. To develop social production, the collective farms create, use in a planned way, and supplement their fixed and circulating assets. These are not subject to distribution among the collective-farm members and, together with the state socialist ownership of land, they form the economic basis of the collective-farm system. Between 1960 and 1969, the fixed assets of collective farms increased substantially to reach a total of 67,000 million rubles by 1972. The collective farms account for 49 per cent of all marketable agricultural output, 57 per cent of the total land produce and for 44 per cent of all livestock production.

Apart from the fixed assets and natural resources already in the economic cycle, the Soviet Union's national wealth includes the public reserves of means of production. Taken together, all these components make up the country's productive funds. The other half of the Soviet Union's national wealth is represented by the consumption funds. These include, first and foremost, the basic non-productive funds used to meet the collective needs of the population (the medical care, education, culture, housing, and the entertainment and services sphere). Then there are the funds of direct public consumption (the funds of scientific research institutions, finance and credit system, management bodies, and defence agencies). As of January 1, 1972, the Soviet Union's basic non-productive funds were estimated at 298,000 million rubles (in 1955 prices).

An essential component of the national wealth is the fund out of which the personal requirements of the population are met, including personal domestic property and the public stocks of consumer goods.

The composition of the national wealth is schematically presented in the table below.

The exploiters who lorded it in Russia up to the time of the October Revolution excelled in devising every conceivable way of increasing their wealth. But the working people of Russia, after defeating them, inherited what was literally nothing but the debris. When the country had been won back from the bourgeoisie, the landlords and the foreign

National wealth	
Production Funds	Consumption Funds
Fixed production assets Natural resources already in the economic cycle Circulating assets Public reserves of means of production	Basic non-productive funds to meet the collective needs of the population Funds for immediate public consumption Consumer goods Public stocks of consumer goods

interventionists, Russia resembled, in Lenin's phrase, a man beaten nearly to death. The country's economy had to be rebuilt from scratch.

In 1921, gross industrial output was less than a third of what it had been in 1913. Railway freight turnover was at a similarly low level. A country, whose natural resources and manpower could support half of mankind, was itself in the grip of famine.

Since 1921, when the Soviet economy began, in effect, to develop, the country's national wealth has increased to astronomical proportions.

But even compared to the 1913 level, when Russia was still untouched by the destructive whirlwinds of the First World War, the foreign intervention, and the Civil War, the country's national wealth has multiplied dozens of times over thanks to the constructive efforts of the workers, collective farmers and intelligentsia. In 1972, the fixed production assets in all the branches of the Soviet economy were 21 times what they had been in 1913, while the fixed assets in industry were 70.3 times as great; and this despite the fact that, during the Second World War, the nazi invaders inflicted appalling damage on this country: "completely or partially destroyed and burned down 1,710 towns and urban settlements and over 70,000 villages; razed to the ground over 6,000,000 buildings to leave some 25,000,000 people homeless; demolished 31,850 industrial enterprises, 65,000 kilometres of railway track, 4,100 railway stations and junctions, 36,000 post offices, telephone exchanges and other communications facilities; destroyed and sacked scores of thousands of collective and state farms, slaughtered, took

away or drove to Germany 7 million horses, 17 million head of cattle, 20 million pigs, 27 million sheep and goats. Besides, the nazi marauders destroyed 40,000 hospitals and other medical institutions, 84,000 schools, technical colleges, institutions of higher education, scientific research centres, and 43,000 public libraries.

The damage caused the Soviet Union's economy and private individuals (losses resulting from direct destruction and pillage of property) was estimated at 679,000 million rubles (in 1941 prices) of which total state-owned enterprises and institutions sustained a loss of 287,000 million rubles, collective farms—181,000 million, rural and urban dwellers—192,000 million, public organisations—19,000 million rubles. Add to this the sums spent by the Soviet state on the war effort against nazi Germany and Japan and the lost income sustained as a result of the nazi occupation by the state and co-operative-owned enterprises and organisations, by collective farms and the public at large which were estimated at over 1,890,000 million rubles (in 1941 prices; old rubles).

Despite the staggering losses, the Soviet people within a short time multiplied their country's national wealth. In 1972, gross social product reached an astronomical 715,000 million rubles (new rubles), a 14-fold increase over the 1936 level. By 1973 the Soviet Union's fixed assets had increased 23 times compared to the pre-revolutionary level to total 70 per cent of the US fixed capital (in terms of value).

The fixed production assets form the material base for augmenting social wealth. This base was greatly strengthened during the Eighth Five-Year Plan, when the fixed assets showed a 50 per cent increase. At the same time, qualitative changes took place in the composition of the fixed assets owing to the introduction of technically more advanced and economical means of production and also thanks to the priority development of the industries essential for technological progress. Whereas industrial production in the entire five-year period rose by 50 per cent, output in the power engineering industry went up by 54 per cent, in engineering and metalworking by 74 per cent, in the petrochemical industry by 78 per cent and in instruments manufacture it more than doubled. As a result, the Soviet Union's economic potential showed a significant increase, and this made it possible to

step up consumer goods production. In the Eighth Five-Year Plan, the output of consumer goods rose by an average of 8.3 per cent annually, compared to 6.3 per cent in the preceding five-year period. In the consumer goods sector, the share of consumer durables has grown.

After Russia's wealth had been taken over by her working people, the country's economy began to develop rapidly.

A special characteristic of a socialist country is the levelling up of economic development in all areas. Industry in formerly backward areas shows far higher growth rates compared with the country's central regions. This practice is in complete accord with the nationalities policy of the Communist Party of the Soviet Union.

Before coming to power, the Russian Communists had made known their programme of action, which included the establishment of the political equality of nations, the abolition of national oppression in whatever form, the right of nations to self-determination, a policy of encouraging the comprehensive development of each nation so as to make equality of the peoples of the country genuine.

Soon after the victory of the October Revolution, having expelled the foreign interventionist troops and the counter-revolutionaries, the working people of Soviet Russia, consisting of more than one hundred nations and nationalities, decided to form a union of free republics. This came to fruition on December 30, 1922, when the First Congress of Soviets unanimously approved the declaration and treaty on the formation of the Union of Soviet Socialist Republics. In the Soviet Union, which comprises 15 Union republics, two trends are developing concurrently: the steady advancement of nations and the coming together of the nations. These trends are promoted by the growth of public wealth, the deepening of the socialist division of labour, and the community of economic interests.

During the years of socialist development the indestructible friendship of the Soviet peoples, which is the source of the invincibility of the socialist system in this country, has prospered and gone from strength to strength. The Russian people helped all formerly backward nationalities to attain the heights of modern progress. Thus, while in the Soviet Union as a whole industrial production in 1970 was 92 times

what it was in 1913, in Byelorussia the corresponding increase was 101 times, in Moldavia and Kazakhstan 146, in Armenia 184, and in Kirghizia 188 times.

All the national republics and national regions have now their own well-trained personnel capable of tackling the most complex problems in science and technology. During the years of the Soviet power over 50 nationalities have created their own written language and developed their native literature. Schoolteaching is conducted in 65 languages of the nations and nationalities inhabiting the Soviet Union. Each Union republic has its own Academy of Sciences, numerous scientific research institutes, national theatres and film studios. Since the revolution many republics have reached a level that puts them ahead of France, Italy and the FRG. France has 96 students per ten thousand of the population, Britain 83, Italy 70, and the FRG 48; whereas Moldavia has 124, Turkmenia 131, Tajikistan 134, Kazakhstan 152, Byelorussia 154, Kirghizia 161, Uzbekistan 189, Azerbaijan 192 and Armenia 214.

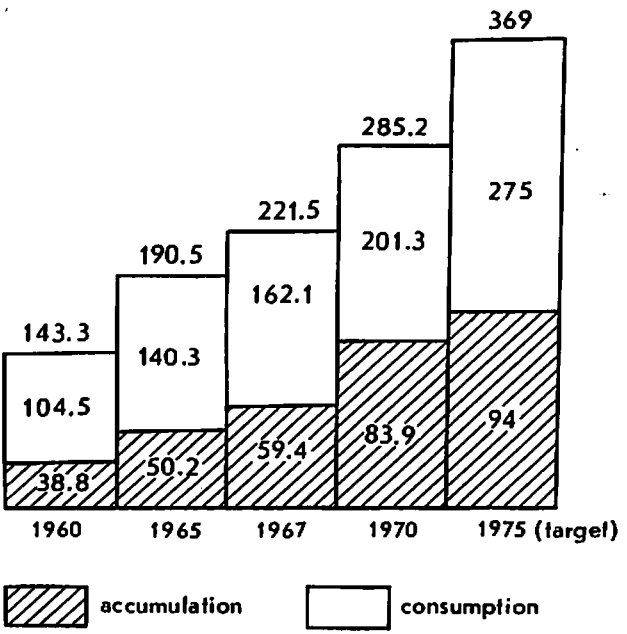
Many peoples which formerly were backward have within half a century travelled the road from medieval darkness to the bright world of socialism, bypassing the painful road of capitalist development. They were able to do so thanks to the fraternal support and assistance of the Russian people. After a visit to Soviet Uzbekistan, the Indian writer Sunderlal said: "If Uzbekistan has been able to develop into a highly advanced country under the Soviet system, and this is indeed so, then the Soviet system is the best in the world."

The national income is a decisive factor in the growth of public wealth, being that part of the aggregate social product which is left when the cost of depreciation of the means of production resulting from the manufacture of that product has been discounted. The national income comprises both the necessary product used to meet the requirements of those engaged in material production and the surplus product which is used to satisfy all the other needs of society. Accumulation accounts for 20 to 25 per cent of the national income and consumption for 75 to 80 per cent. Thus, the national income increases both social and personal wealth.

Thanks to full employment in this country and the fact that labour productivity is on the increase, the national

income in the Soviet Union is growing at double the rate in capitalist countries. In 1970, the Soviet Union's national income was 46.7 times what it was in 1913. Between 1960 and 1970 alone, it increased from 145,000 to 266,300 million rubles. In 1971, Soviet industry accounted for 159,000 million rubles' worth of the national income; agriculture for 61,000 million; the material and technical supply system 34,000 million; the building industry 33,200 million; and the transport and communications systems for 16,600 million rubles. Out of the national income for 1972, estimated at 304,100 million rubles, a total of 299,300 million was used in the national economy. Out of that total, 212,200 million went for consumption, including 187,200 million for personal consumption.

USSR National Income
(thous. mil. rubles)



The advantages of socialism over capitalism find concentrated expression in the higher growth rates of national income. Indeed, between 1951 and 1972 national income increased: in the USSR—by 480 per cent, in the FRG—by 250 per cent, in France and Italy by 200 per cent and in the USA by 100 per cent.

Capital investments in the economy are vital for increasing the country's socialist wealth, including the national income. These investments form the material foundation for expanding socialist production and serve to accelerate scientific and technological progress, expand the basic non-productive assets (housing, cultural and welfare establishments, medical and educational institutions, etc.), and further improve the well-being of the people.

In the fifty years between 1918 and 1968, centralised state investments alone amounted (in comparable prices) to 537,000 million rubles. With every five-year plan, the volume of investment has increased by a substantial margin. Thus, whereas between 1929 and 1932, the years of the First Five-Year Plan, 6,200 million rubles were invested, between 1966 and 1970 the figure was 352,000 millon rubles.

Investments under the Eighth Five-Year Plan were 40 per cent higher than during the preceding five-year period (1961-65). These investments made it possible substantially to expand the economic potential to increase public wealth. Suffice it to say that between 1966 and 1970, new facilities were put into operation in the power industry with a total capacity of 54 million kilowatts, in the iron and steel industry —of 18 million tons capacity, in the mineral fertiliser industry—33 million tons, in the cement industry—17 million tons. The length of trunk gas pipelines increased by 25 thousand kilometres.

Capacities in the consumer goods industries showed a substantial advance, with the footwear industry increasing its output by 148 million pairs, and the knitwear goods industry by 400 million articles.

Large-scale measures were carried out to improve the material and technical facilities of Soviet agriculture. This increased the harvests and the productivity of stock-farming. The average annual output in agriculture between 1965 and

1970 was 21 per cent higher than in the period 1961-65. In 1970 alone, the value of agricultural production went up by 6.9 thousand million rubles (in comparable prices) to reach 85.8 thousand million rubles.

A substantial increase in investments is typical of all regions in the Soviet Union. Assuming the volume of investment under the First Five-Year Plan in the Moscow region as equal to 100, in the second five-year period the figure was 219, while in the fifth five-year period—554. In the sixth five-year period, the volume of investment was eleven times that in the first five-year period. In the seventh five-year period, the increase was 16-fold.

The volume of investment in the Union republics has been growing even more rapidly. Indeed, whereas the amount of fixed production assets put into operation in the Soviet Union as a whole in 1970 was 13 times what it was in 1940, in Byelorussia the increase was 15 times, in Kirghizia over 19, in Uzbekistan almost 20, in Kazakhstan 21.5, and in Moldavia 118 times.

Steadily growing investment in the economic and cultural spheres has enabled each Union republic to develop a powerful economic potential. Significantly, the increasing division of labour among the Union republics has produced a situation where the republics are complementing one another's efforts to step up economic development. Each republic is comprehensively developing its industry and agriculture, taking due account of its mineral wealth, material and manpower resources, and experience gained. As a result, their comprehensive economic development does not conflict with specialisation inside the Soviet Union as a whole. Byelorussia, for instance, has built up a chemical industry. At the same time, the republic is a manufacturer, on a nation-wide scale, of tractors, automobiles, instruments, radio equipment, machine tools, and automatic lines. Uzbekistan has developed practically from scratch over a hundred different industries, including an agricultural engineering industry which supplies the necessary machines and equipment for cotton growing. The Georgian Republic has been vigorously developing its iron and steel, machine-tool, chemical, electrical and mechanical engineering, and other industries. Latvia accounts for 25 per cent of the Soviet Union's output of electric trains, 20 per

cent of the national output of radios, and 25 per cent of electric bulbs.

The national minorities have benefited particularly as they have been able to overcome their patriarchal backwardness to join the mainstream of modern progress. The Buryat Autonomous Republic, to take but one example, has an aircraft building industry and manufactures a wide range of industrial equipment, electric motors, railway cars, truck cranes and complex appliances. The Mordovian Autonomous Republic has developed electrical engineering, instrument manufacture, and the chemical equipment industry.

The current five-year plan (1971-75) has introduced a qualitatively new stage in the production of social wealth. If, formerly, there was a tendency towards an extensive increase in production and expansion was attained by new industrial construction projects and by increasing the work force, in the current five-year period the main emphasis is on intensive factors such as the full utilisation of the available production capacities, the wide-scale introduction of the latest developments in science and technology, and greater labour productivity.

These features of the new five-year plan have found graphic expression in the basic objectives, as outlined by the Directives of the 24th Congress of the CPSU for the Five-Year Economic Development Plan of the USSR for 1971-1975. The planned increase in industrial output at existing enterprises is expected to be achieved without any augmenting the work force. Agricultural production will advance by an average of 20 to 22 per cent annually with, in fact, a reduction in the number of employees. The national income over these five years is to go up by 40 per cent, with eighty per cent of the projected increase being obtained by higher labour productivity.

This does not mean, however, that capital construction will be curtailed in the current five-year period: on the contrary, investment in capital construction will be increased by 36-40 per cent to bring its volume up to 500,000 million rubles which is roughly what the Soviet Union's total fixed production assets were estimated at in 1970. But the direction of capital investments will shift somewhat and this will work substantial changes in the composition of the country's na-

tional wealth. From now on, most of the new investments will go into the technical re-equipment of the national economy to bring it into line with the requirements of the current scientific and technological revolution.

The Directives of the 24th Congress of the CPSU require the capacity of primarily the existing enterprises to be increased by the introduction of advanced technologies, the modernisation and replacement of obsolete equipment, and by the implementation of other measures which will make it possible to increase output, without expanding the size of the enterprises concerned, at a lower cost and more quickly than is normally the case with new industrial construction projects.

Industries essential for technological progress will develop at a faster rate. These include the chemical industry, electrical and mechanical engineering, especially instrument manufacture, and industries producing automation and control equipment. The geographical location of productive forces will change in response to the vigorous development of the country's northern and eastern areas, rich in minerals. No more industrial enterprises are to be built in most of the cities except for those which cater for the inhabitants and municipal economies.

In the current five-year period, the Communist Party is pursuing a firm policy aimed at strengthening in every way the material and technical facilities of agriculture. This will ensure the full satisfaction of the steadily growing requirements of the population for food products and of industry for raw materials. State investments in agriculture for the development of production facilities, housing, cultural and welfare services, as well as for the acquisition of agricultural machinery, will alone total 82,200 million rubles.

Greater capital investments than those made in the previous five-year period will be channelled into improving the Soviet people's working and living conditions in order to ensure the even fuller satisfaction of their requirements to promote comprehensive development. The supreme objective of the current five-year plan is to effect a substantial rise in the material and cultural standards of the population.

Investments in each republic depend on the centralised economic management and planning. Many major construction projects have come to symbolise the fraternal friendship of the peoples of the USSR. A case in point has been the rebuilding of Tashkent, a city that suffered the ravages of a violent earthquake some years ago. The Bratsk and Nurek hydroelectric power stations, the Karakum canal, the automobile works at the city of Togliatti and on the river Kama, have all been brought into being by the joint efforts of the many different peoples inhabiting the USSR.

L. I. Brezhnev, General Secretary of the CC of the CPSU, speaking at a public ceremony in Tbilisi, marking the 50th anniversary of the Georgian SSR, spoke for all Soviet people, irrespective of nationality, when he said: "All of us, no matter what the republic we live in, are Soviet patriots, children of one socialist Motherland. Our country is a vast land stretching as it does from the Pacific to the Baltic, from the Arctic Ocean to the Pamirs and the Caucasus. Everything in this land that has been created by human hands—the cities, the giant industrial centres, the boundless farm fields, the mighty hydroelectric power stations, the treasures of spiritual cultures—all this is the result of the common efforts of our people, the collective property of the Soviet people."

At present, we are witnessing rapid industrial development in all the Union republics. Between 1971 and 1975, industrial production in the Soviet Union as a whole is to rise by 42-46 per cent, with the increase in the Russian Federation at 44-47 per cent; in the Ukraine—38-41 per cent; in Byelorussia—53-56 per cent; in Uzbekistan—46-49 per cent; in Kazakhstan—57-60 per cent; in Turkmenia—55-58 per cent; in Moldavia—56-59 per cent; and in Armenia—60-63 per cent.

The spectacular growth of investments makes their efficient use more important than ever before. To increase the country's social wealth, it is essential to reduce the drawing board stage, and to speed up the construction and commissioning of new industrial projects. Research by Soviet scientists, together with advanced experience, shows that this country has real possibilities for cutting the building time of major industrial enterprises by two years. The volume of unfinished industrial construction throughout the

country would then be cut by 6,000-8,000 million rubles, which would add an estimated 4,000-5,000 million rubles to the national income. A two-year cut in the running-in time for new production capacities will make it possible to produce an additional 20,000 million rubles' worth of products annually. This will increase the national income by a further 10,000 million rubles.

The Directives of the 24th Congress of the CPSU call for a substantial rise in investment efficiency. It is important to obtain a maximum increase in output per ruble of investment.

The decisions of the 24th Congress of the CPSU are being put into effect. In the two years (1971-72) since the start of the Ninth Five-Year Plan industrial output went up by 54,000 million rubles, a 15 per cent increase, national income rose by 26,200 million rubles, an increase of 10 per cent. A total of 170,000 million rubles' worth of fixed assets went into production in the economy as a whole which brought their total volume up to 850,000 million rubles by early 1973 (nearly seven times more than in 1940).

In 1972, the USSR's national wealth (exclusive of land and forests) was estimated at 1 trillion 500 billion rubles, a 20-fold increase compared to the 1913 level. And this in spite of the fact that in the Great Patriotic War the Soviet Union lost no less than 30 per cent of its national wealth.

Wealth under socialism, as we have seen, is owned by the working people themselves, and for this reason it is truly the people's wealth. Its material composition is exceedingly varied. The Soviet Union has everything necessary to meet its production, defence, and other national needs, and to satisfy the steadily growing material and cultural requirements of its people.

THE WEALTH OF SOCIETY, OF THE FAMILY AND OF THE INDIVIDUAL: COMMON FEATURES AND DISTINCTIONS

Under socialism, ownership of wealth takes different forms. This is explained by the dependence of a particular form of ownership and of the existing production relations

as a whole on the level of development and on the character of the productive forces. Under socialism, the lower stage of communism, it is impossible to socialise all elements of wealth. What is more, it is evident that even at the higher stage of communism, where public ownership of the means of production will be complete, articles of personal consumption will continue to pass from public into personal ownership.

The question arises: in what proportion is social wealth divided among the various forms of ownership under socialism? It is hard to answer this with mathematical precision.

Wealth is exceedingly multiform and it is difficult to assess it in any single and final way. This is something that bourgeois economists and sociologists are quick to seize upon. When they find it to their advantage, they count as wealth shares, bonds and other securities which are divorced from real values and make up fictitious capital. They often overestimate natural resources in order to inflate the total value of national wealth and thus to show the supposed "progressiveness" of capitalism, its ability, so they aver, to boost national wealth at a high rate.

In capitalist countries, many distortions are committed when estimating that part of the national wealth which, in one way or another, reaches the working people in the form of payment for their labour.

Socialist society has no interest whatever in distorting the economic picture or the distribution pattern of public wealth. If isolated inaccuracies do accidentally occur, they have a detrimental effect on the work of the planners. That is why, in the Soviet Union, the state agencies responsible for providing an accurate picture of the country's economy—primarily the Central Board of Statistics under the USSR Council of Ministers and the Board's local branches—are constantly perfecting their methods of estimating the country's wealth.

To compare different kinds of wealth, these agencies carefully estimate the fixed productive assets, the circulating productive assets, the stocks of commodities and the personal property of the population in terms of value. For this purpose, the land, its mineral resources, and its forests are re-

garded as part of the fixed assets and are estimated in relative terms.

The first comprehensive estimate of the Soviet Union's national wealth along these lines was made in 1936, when the country had basically built socialism. It showed that 90 per cent of the total production assets, including the land and forests, was already public property owned by the socialist state and was being used by the working class in line with the existing economic development plans. Of the rest, 8.7 per cent belonged to the collective farms and co-operative societies; 1.1 per cent was privately owned by collective-farm members, and 0.2 per cent—by individual farmers and handicraftsmen.

Today, fixed assets constitute 68 per cent of the Soviet Union's national wealth, the circulating assets—23 per cent and property individually owned by the population—9 per cent. If one takes into account that both the fixed and circulating assets are publicly owned, it is not difficult to see what the victory of socialism has done for this country. It has made the bulk of the country's national wealth the property of the whole of society. A considerable part of this wealth is owned by collective farms and co-operative societies. Consumer goods, on the other hand, are for the most part privately owned.

As for personally owned wealth, this, in its turn, is subdivided into the wealth owned by families and that owned by private individuals. The former includes articles of common use which are indispensable to housekeeping and subsidiary farming of most collective farmers, state-farm workers and other rural dwellers. The immediate personal property of individuals includes their personal effects and savings from their earned incomes.

In a socialist society, the different forms of national wealth have common features which underlie their essential unity. This unity consists in the fact that all kinds of wealth are the product of the work of people free from exploitation and belong in one way or another to them. As a result, wealth cannot be used for exploiting the labour of others. Since wealth is produced by collective labour and, under socialism, belongs to the working people, it enjoys the protection of the socialist state.

The unity of the different social forms of wealth, however, does not exclude essential distinctions between them. For instance, while the wealth which constitutes public property is only owned collectively by members of society, collective-farm and co-operative wealth belongs to individual collectives. Family wealth is the property of the family, which is the primary cell of society. Finally, personal wealth is the property of individual citizens.

The difference between the social forms of wealth depending on the extent of its socialisation, i.e., its control, ownership and use, is of fundamental importance. It shows that the basic determining factor is public wealth used in the interests of all working people. Together with the property owned by collective farms and co-operative societies, it constitutes the country's immediate social wealth. The Soviet Constitution binds all members of society carefully to conserve and augment the country's public wealth, which forms the economic basis of socialist society and plays the leading and decisive role in relation to the other forms of wealth.

The Right-wing revisionists, who are notorious for their distortions of Marxism, lay the main emphasis on co-operative, group, property and underestimate the public form of wealth. To hear them, one might think that in any capitalist country with a more or less developed co-operative movement, there exist elements of socialism. The truth of the matter is, however, that co-operation is not of itself a socialist form of economic management. The character of co-operation in a given country is determined by the predominant form of ownership in that country, and by whoever sets the tone within the co-operative movement. That is why, under capitalism, a co-operative is a collective capitalist enterprise. A co-operative system becomes a socialist form of economy only with the establishment of the dictatorship of the proletariat, when the means of production belong to the working people and a co-operative becomes an association of workers free from exploitation.

The Communist Party, while emphasising the determining and leading role of state socialist property, at the same time believes that collective property must not be neglected. The Programme of the CPSU puts it thus:

"Kolkhoz farming accords in full with the level and needs of the development of modern productive forces in the countryside, and makes possible effective use of new machinery and the achievements of science, and rational employment of manpower. The kolkhoz blends the personal interests of the peasants with common, nation-wide interests, individual with collective interest in the results of production, and offers extensive opportunities for raising the incomes and the well-being of peasants on the basis of growing labour productivity.... The kolkhoz is a school of communism for the peasantry."[1]

The so-called indivisible funds form a crucial component of the wealth owned by a collective farm. These funds include the fixed and circulating assets, as well as the basic non-productive funds. This wealth cements the community of interests of the collective-farm members and precludes the possibility of collective property becoming private.

The growth of the indivisible funds is the main indicator of the growth of collective-farm wealth. After the victory of the collective-farm system in the Soviet countryside in 1932, the indivisible funds began to grow steadily, and by 1969 had increased 107 times. These funds account for 99 per cent of collective-farm property, with only one per cent being made up of the shares of individual members. Over 95 per cent of the total value of the indivisible funds are socialist accumulations, while the entrance fees and contributions which originally laid the foundations of collective-farm wealth, account for less than 5 per cent.

Only the collective farm itself through its duly authorised agencies can control its property and finances. As is stated in the new Model Rules of the Collective Farm: "The collective farm shall see to it that no funds and resources are used for purposes other than its own.

"Members of the collective farm guilty of causing the loss, damage or destruction of collective-farm property and equally those guilty of using without due authorisation tractors, motor vehicles, farm machinery, farm animals and of inflicting material damage on the farm shall compensate the collective farm fully for the damage done."

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[1] *The Road to Communism*, Moscow, 1962, pp. 523-24.

Public wealth is the property of the working people and they can use or otherwise dispose of it only in strict accordance with the law.

As for personally owned wealth, it is based on the work of individuals in social production. In part, this property also depends, primarily in rural areas, on the labour put in by those who practise subsidiary farming. This form of farming under socialism remains an objective necessity. The attempts of Left-wing revisionists to abolish it by administrative methods only hamper the development of the socialist economy, as the experience of the People's Republic of China has shown all too clearly.

In the Soviet Union, those engaged in subsidiary farming supply a considerable amount of produce. Although its share in the national total has been shrinking, it is still substantial. In 1950, subsidiary farming gave 44 per cent of the vegetables, and in 1968—41 per cent. The share of subsidiary farming in meat production was 67 and 38 per cent respectively, in milk production—75 and 38 per cent, while in egg production it was 89 and 60 per cent.

In the rural areas, however, including the collective farms, the labour of the citizens in the social economy is becoming the basic source of personal wealth. As productivity of labour grows, and with it the country's public wealth, subsidiary farming will progressively lose its present economic importance.

Thus, even at the lower stage of communism, personal property differs in kind from private property. Personal property includes articles of personal and family consumption. It is indissolubly linked with the two predominant forms of public ownership and is directly influenced by them.

The Ninth Five-Year Plan marks a new and important stage in the development of public and personal wealth in this country. The Directives of the 24th Congress of the CPSU for the current five-year programme of economic development envisage the continued growth of all social forms of the country's national wealth. The national income is expected to grow by 37-40 per cent. This will be achieved by intensifying the social forms of economic activity. Industrial production will go up by 42-46 per cent compared with the preceding five-year period (1965-70). The output

of consumer goods, the bulk of which end up as personal property through the medium of the retail trade, will grow at a higher rate than that of producer goods. The increase will be 44-48 and 41-45 per cent respectively.

Bourgeois propagandists have interpreted this as the abandonment by the Soviet Government of its former policy of giving priority to the output of producer goods (Department I) over that of consumer goods (Department II). The priority development of Department I of social production is a law of extended reproduction. This, and other economic laws of socialism, have been consistently and unswervingly observed by the CPSU and the Soviet Government. In individual areas of the economy, including those as big as industry, it is possible to maintain a somewhat different ratio between the growth rate in the output of producer goods and that of consumer goods. After all, the Communist Party has always regarded the priority development of Department I over Department II not as an end in itself, but as a means of enhancing the country's economic potential in the interests of the working people. Soviet industrial development has now entered a phase where it is possible to increase the output of consumer goods without prejudicing the further industrialisation of the economy as a whole.

The basic task facing industry in the current five-year period, as defined by the Directives of the 24th Congress of the CPSU, is to expand and improve the industrial base for the development of the socialist economy with emphasis on agriculture and the industries associated with it, to raise technical standards and production efficiency, and radically to improve the quality of the product.

At the same time, the Directives point to the need for gearing the development of all industries to the ever fuller satisfaction of the everyday needs of the Soviet people. This will entail a more rapid growth and a greater share of the industries manufacturing consumer goods and the raw materials, machines and equipment necessary for their production.

THE ROAD TO PERSONAL WELL-BEING

Since the bulk of wealth under socialism is public property and is owned by the socialist state, all the working

people should be vitally concerned in increasing that wealth. This direct connection between the personal interests of the members of the socialist society and their common, collective interests is strengthened by the dependence of family and personal wealth on public wealth. This means that the greater the aggregate social product and national wealth as a whole, the more fully can society, all the other things being equal, satisfy the personal requirements of its members, and the higher will be the standard of living.

Under socialism, there can be no yardstick in distributing public wealth other than the personal contribution made by members of society to building it up, and the quality and amount of labour they put into the common effort. All are united by the same principle: "from each according to his ability, to each according to his work."

But distribution according to work does not mean that everything produced should be divided among the individual producers. The point is that production must continue tomorrow, and the day after tomorrow, and in a year's time. Should it be interrupted, even for a few weeks, people will begin to die from privation. It is therefore vital when distributing wealth to leave the newly created means of production in public hands. Otherwise, there will be no socialism and no more production in general.

But it is impossible to distribute all consumer goods according to work. Society must have stand-by reserves on which it can draw at a time of natural calamities and international complications. Moreover, there should be special resources, quite considerable, to maintain the armed forces sufficient to defend the country in case of attack. It is also necessary to have certain resources for running the machinery of state administration and for the maintenance of public order. Finally, each member of society has needs which he cannot meet on his own. For this, social consumption funds are necessary. These funds, incidentally, are a great gain of socialism.

To appreciate the importance of the social consumption funds for the Soviet people it will suffice to enumerate some of the services which are available either free of charge or on favourable terms.

First, public education. In this country it is not only ac-

cessible to all but is, in fact, compulsory for every normal child. At present, the Soviet Union is going over from the compulsory eight-year to a compulsory ten-year schooling.

Vocational training, secondary special and higher education, and scientific training in this country are fully available to anyone according to ability and ambition. Not surprisingly, every third Soviet citizen is engaged in some kind of study.

Great attention is paid in the Soviet Union to the public health services. It is thanks to the social consumption funds that the efforts of the Soviet state to organise excellent health care and prolong the life span have been so effective. In Soviet times, life expectancy has increased substantially, while infant mortality has declined.

The socialist state contributes a considerable share of the outlay on adequate accommodation, household services and cultural and educational facilities for the people. Rent in the Soviet Union does not make good even half of the maintenance outgoings on living accommodation, let alone the cost of housing construction. The same applies to the various recreational and cultural centres, cinemas, opera houses, theatres, etc.

Social security expenditures are of special importance in the social consumption funds. They make possible the provision of pensions, allowances, holiday and maternity pay, and part-price accommodation at sanatoria, rest homes, hiking centres and the use of other facilities.

Soviet people have come to take the social consumption funds very much for granted, and many tend to overlook some of the great benefits they provide in much the same way that they do not notice the air they breathe. And yet these social consumption funds are just as vital to every Soviet man and woman. But, unlike the air, these funds are no gift of nature but the result of the Soviet people's labour and they have a quite definite monetary value.

The close connection between the personal well-being of the individual and the wealth of society as a whole, a connection which is daily felt by everyone here, is maintained not only through the social consumption funds, but also through the system of distribution according to labour by means of payment for labour. This form of distribution is

a manifestation of the economic law which continues to operate because under socialism there is, as yet, no overabundance of material benefits, which is the all-important prerequisite for distribution according to needs. Secondly, the needs themselves are still in the formative stage and are not yet what they should be on a strictly scientific basis ensuring the comprehensive development of man. Thirdly, work for the community in the broad sense has not yet become the primary, vital need for every able-bodied member of society.

In this situation, it is still necessary to provide individual and collective material inducements to encourage work in social production.

At present, we cannot abandon distribution according to labour and go over to the satisfaction of the population's needs through the social consumption funds. The reason here is that the material and organisational prerequisites for this are still in the making. This is a highly complex problem which will be solved gradually as the material and technical basis of communism is built up, as socialist relations gradually develop into communist relations, and as the new type of citizen emerges.

Lenin stated that the lower stage of communism presupposes "socialised labour with strict accounting, control and supervision by the organised vanguard, the advanced section of the working people; the measure of labour and remuneration for it must be fixed".[1] Lenin saw distribution as "a method, an instrument, and a means of increasing output".[2]

Distribution according to labour in the form of payment for work done is likely to remain a necessity for quite some time. The Communist Party, as is stated in its Programme, proceeds from the Leninist proposition that the building of communism should be based on the principle of material incentive.

If one examines payment for work done in unity with the social consumption funds, it becomes clear that under socialism, just as the founders of Marxism predicted, "the

[1] V. I. Lenin, *Collected Works*, Vol. 30, p. 284.
[2] Ibid., Vol. 32, p. 448.

individual producer receives back from society—after the deductions have been made—exactly what he gives to it".[1] That is why the meeting of the population's needs through wages and through the social consumption funds is directly dependent on the level of development and on the efficiency of social material production.

L. I. Brezhnev said: "In this country we tackle scientific and technical problems relating to production parallel with efforts to improve the well-being of the people. Herein lies the fundamental difference between our and capitalist systems."

In 1950, the Soviet Union's national income was estimated at 56,000 million rubles, and the social consumption funds at 13,000 million. By 1960, the figures had risen to 145,000 and 27,300 million rubles respectively. In 1971, the corresponding figures were 304,100 and 68,600 million.

Wages are also directly dependent on the growth of the country's national income. Between 1950 and 1969, the average monthly cash earnings of workers and office employees in industry rose from 70.8 to 127.7 rubles, the pay of construction workers went up from 60.5 to 139.9 rubles and that of agricultural workers from 38.3 to 93.2 rubles. For the national economy as a whole, the pay almost doubled, rising from 64.2 to 116.9 rubles. In 1970, it stood at some 122 rubles.

If we examine the dependence of the personal consumption of the population on the national income, the following picture emerges: in 1960, the national income was estimated at 145,000 million rubles, of which 104,500 million went on consumption, including 93,900 million on personal consumption. In 1969, the figures were 261,700, 187,500 and 166,200 million respectively.

The dependence of the people's well-being on the progress of social production was graphically demonstrated in the eighth five-year period.

Between 1966 and 1970, the national income rose by 77,200 million rubles, which is as much as the country's total national income for 1953. As a result, the Soviet Union was able to increase capital investments in all branches of

[1] Marx and Engels, *Selected Works*, in three volumes, Vol. 3, p. 17.

the economy, to strengthen its defences, increase aid to peoples fighting against imperialism and to developing countries, and, moreover, to solve a number of major social problems.

As from 1968, the minimum wages were increased to 60 rubles a month. The pension scheme was also improved, and additional financial inducements were provided for those working in remote areas. The collective farmers began receiving guaranteed monthly cash payments, while previously they were remunerated for their work at the end of the year. Incidentally, cash earnings of collective farmers went up by 42 per cent in the eighth five-year period, and this substantially contributed to raising the living standards in the rural areas to the level of those in the urban areas. As a whole, real per capita incomes increased by 33 per cent, which is three per cent more than was envisaged by the Directives of the 23rd Congress of the CPSU. Between 1966 and 1970, cash incomes increased by 225,000 million rubles, while the payments and allowances out of the social consumption funds rose by 98,000 million, an increase of more than 50 per cent. In 1970, the value of benefits provided per capita of population out of the consumption funds was estimated at 262 rubles, as against 182 rubles in 1965. This growth brings tangible benefits to every Soviet citizen.

Take housing, for instance. Between 1966 and 1970, more than 500 million square metres of floor space were made available. Every year, some eleven million people move into new flats. The public health services were improved. The number of doctors increased by 120 thousand, and the number of hospital beds by 448 thousand. The network of cultural institutions expanded and Soviet education made further strides. Secondary education in this country is within the reach of all. The number of students in the Soviet Union increased by 812 thousand between 1966 and 1970. All this is the direct result of the growth in the country's public wealth.

The continued progress of socialist production and the growth of social wealth bring about progressive changes not only in the physical volume of personal consumption but in its structure as well (changes in kind) as data in the table below illustrate.

Table 1

Changes in the Structure of Incomes and Expenditure in Industrial Worker Families of Moscow, Leningrad, Kharkov, the Donbass Area, and Gorky, Sverdlovsk and Ivanovo Regions

(percentage)

	1922	1940	1971
Total aggregate income	100	100	100
including:			
wages of working members of family	87.7	78.5	74.2
pensions, maintenance, grants, allowances and other benefits out of social consumption funds (including free education, medical treatment, etc.)	2.0	15.3	22.4
other sources of income	10.3	6.2	3.4
Total of expenditure	100	100	100
including:			
food	45.6	52.4	35.7
clothes and footwear	26.1	11.9	15.1
furniture and recreational and household goods	1.1	2.2	6.0
fuel and lighting	12.5	1.3	0.3
culture and welfare services	7.4	19.2	22.8
of which:			
education, medical treatment and other free services provided by social consumption funds	0.9	9.2	13.6
rent, maintenance of (self-built) individual housing	2.3	3.2	2.5
savings (ready money, deposits in savings banks, etc.)	2.2	3.5	4.4
taxes	0.3	3.4	7.2
other items of expenditure	9.2	6.1	8.5

The table indicates the steadily growing share in the aggregate incomes of worker families of allowances and benefits out of social consumption funds.

There has been a marked increase in the share of personal savings going to buy consumer durables. The growth has been steepest in expenditure on culture and welfare services provided out of social consumption funds.

Why does the socialist society undertake to meet the population's needs in education, health care and social secu-

rity? Why does it spend billions of rubles to improve housing and cultural facilities for the population, to provide allowances, pensions and maintenance grants, to maintain children under school age in kindergartens and crèches?

Would it not be better if all this money was distributed as additional wages? In this country, it is hardly likely that anyone in his right mind would consider this a good idea.

The social consumption funds have become a matter of course for the Soviet people and a basic necessity. The role of these funds will continue to grow as the country advances towards the higher stage of communism. In 1960, the share of these funds in the country's total consumption amounted to 26 per cent, rising to over 30 per cent in 1968.

Between 1950 and 1970, the social consumption funds increased five times.

What does this mean in practical terms?

By late 1950, a total of 1,200 thousand children under school age were attending children's pre-school establishments. In 1970, the number rose to 9,300 thousand. In the same period, the number of children attending general education schools grew almost by 50 per cent, while the number of students in secondary specialised institutions rose from 1,300 to 4,400 thousand. The number of students in higher educational institutions went up from 1,200 to 4,600 thousand. All told, about 79 million people in this country are currently engaged in some form of study.

Or take another age group—the pensioners. In 1941, only four million were drawing pensions in this country. In 1970, the figure was nearly 41 million. The size of pensions grew over the period accordingly.

Primarily personal needs are met with the aid of wages. A developed system of social consumption funds makes it possible to meet in a reasonable and effective way major social needs, with workers of the lower and medium income groups benefiting most.

In 1970, the benefits each Soviet family received out of the social consumption funds were estimated as averaging some 1,000 rubles. But if the social consumption funds were to be distributed among the population in the same way as wages—that is to say, according to work—then the families of people on low incomes would receive far less than one

thousand rubles each. What is more, the people would have had to pay for health services and education. As a result, social differences, far from becoming less, would have deepened, with all the undesirable consequences that would have followed. Illiteracy and semi-literacy would have returned, the death rate would go up and the average life expectancy would decrease.

Free services provided to the population out of the social consumption funds are the most humane collective way of meeting their needs. These services are having a marked influence on the growth of the cultural and educational standards of the working people, promoting good health and a higher capacity for work, and helping to eliminate differences in the standards of living among different families.

All this goes to show that the growth of the social consumption funds is an important guarantee to all Soviet people of their basic constitutional rights to education, recreation and social security. These funds are sure to develop in the future as well.

The economic reform, which is being implemented in line with the decisions of the plenary meeting of the CC of the CPSU, of September 1965, later approved by the 23rd Party Congress, is a major factor in strengthening the connection between social production and the personal well-being of the population. The reform has helped to link wages more closely not only with the results of the worker's labour, but also with the overall results of the economic activity of the production collective. At the same time, the new system of planning and economic incentives enables all properly functioning enterprises to build up considerable funds to finance their own social and cultural programmes and housing construction. Today, many enterprises and collective farms have their own preventive treatment centres, rest homes, sanatoria, kindergartens, crèches, and Pioneer summer camps. Industrial workers, office employees and collective farmers are benefiting more and more from the steady improvement in their living conditions and better cultural and community services.

All this is due to the constant efforts of the Communist Party and the Government to foster a closer community of

interests of the individual working man with the interests of his fellow workers and society as a whole.

Taken together, wages and all kinds of benefits out of the social consumption funds, with due account of the price index, constitute the real incomes of the population, and their constant growth, based on higher efficiency of social production, is the chief source of better living standards.

Between 1940 and 1970, per capita real incomes grew fourfold.

The Ninth Five-Year Plan opens up new prospects for the growth of the country's social wealth and standard of living.

As regards the material and cultural standards of the population, a substantial improvement, stemming from higher growth rates and greater efficiency of social production, is the main objective of the current five-year plan. This task is reflected in the economically substantiated and closely integrated planned targets. Thus, the country's national income will show a 37-40 per cent increase from 266,300 million rubles in 1970 to 400,000 million in 1975. The value of the gross social product by the end of the current five-year period is expected to reach some 900,000 million rubles. By way of comparison, in 1940, on the eve of the Great Patriotic War, it was barely 70,000 million.

This impressive growth of social production will make it possible to attain the principal objective of the current five-year plan—to secure a substantial rise in the material and cultural standards of the Soviet people with a simultaneous increase in capital investments, and in outlays on defence and fraternal assistance for peoples fighting against imperialism for peace, democracy and socialism.

Between 1971 and 1975, real per capita incomes will rise by approximately 30 per cent, with the average monthly earnings of factory and office workers increasing by 20-22 per cent, and those of collective farmers engaged in the social sector—by an average of 30-35 per cent. This testifies to the consistent implementation by the Communist Party of its policy of bringing closer together the living standards of town and country.

The social consumption funds remain an important factor in improving the living standards of the Soviet people. The

value of services and benefits made available out of these funds is expected to increase from 64,000 million rubles in 1970 to 90,000 million in 1975.

Housing construction will be carried out on an even wider scale than in the preceding five-year period. Between 1971 and 1975, a total of 565-575 million square metres of floor space will be built. At the same time, the quality of construction will improve, as will layout, finish and facilities in the new flats.

It is intended to carry out a large programme of measures to improve domestic, medical, recreational, and sports facilities.

The current five-year period will see further progress in public education and socialist culture. In this connection, special attention is being paid to improving the existing system of cultural facilities for the population. By 1975, the construction of palaces of culture in district centres and of cultural institutions in all major populated centres will have been completed in the main. All this goes to confirm the validity of the conclusion contained in the Directives of the 24th Congress of the CPSU for the Five-Year Economic Development Plan of the USSR for 1971-1975: "The greater the national income, the richer our country, the better every Soviet citizen will live."[1]

In its resolution on the main report of the Central Committee, the 24th Congress of the CPSU recognised it as both feasible and essential to adapt the economy more thoroughly in order to solve the many and varied problems connected with improving the well-being of the population. The Party's policy, aimed at bettering the well-being of the Soviet people, determines not only the paramount objective of the Ninth Five-Year Plan, but also the country's long-term economic development course.

[1] *24th Congress of the CPSU*, p. 322.

CHAPTER II

THE CREATION OF WEALTH IN SOCIALIST SOCIETY

LABOUR IS THE FATHER OF WEALTH, NATURE IS ITS MOTHER

Take whatever element of wealth we will, we find that it is linked with nature and labour in one way or another. The principal function of labour, according to Engels, is to convert nature's materials into wealth. Marx compared nature with a reservoir containing "the *use-values*, which are to be got hold of through industry".[1]

According to the Marxist economic doctrine, in any given socio-economic conditions the main content of the production process, its creative essence, is the labour process which implies close interaction between people and nature. In this process, people act on nature, adapting it for the satisfaction of their requirements.

Schematically, the process of production can be presented as follows:

$$\text{Producers} + \left.\begin{matrix}\text{Instruments}\\ \text{of labour}\end{matrix}\right\} \rightarrow \begin{matrix}\text{Subject}\\ \text{of labour}\end{matrix} = \begin{matrix}\text{Finished}\\ \text{products}\end{matrix}$$

For all the diversity of particular types and forms of production, its main elements are invariably "1, the personal activity of man, *i.e.*, work itself, 2, the subject of that work, and 3, its instruments".[2]

In the course of production, the various simple elements of labour activity do not play identical roles. Of the material

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[1] Marx, *Theories of Surplus-Value*, Part II, Moscow, 1968, p. 245.
[2] Marx, *Capital*, Vol. I, p. 174.

factors involved, the instruments of labour play the pre-eminent part. They are the tools with which man acts on his environment, and for this reason they express the degree of man's domination over nature. This fact explains the decisive role of the instruments of labour for economic progress. As Marx pointed out: "It is not the articles made, but how they are made, and by what instruments, that enables us to distinguish different economic epochs. Instruments of labour not only supply a standard of the degree of development to which human labour has attained, but they are also indicators of the social conditions under which that labour is carried on."[1] The instruments of labour determine the organisational level of labour, production and management.

As the mechanisation and automation of production progresses, workers increasingly go over from the direct action on the subjects of labour to the job of controlling the operation of machines and mechanical aids. The change in work functions entails alterations in the division and co-operation of labour, in the organisation and servicing of work-places, in the fixing of work and rest periods, in training procedures, and in other aspects of organisation.

Take the First State Ball-bearing Plant in Moscow. The plant has three fully automated workshops which produce about half its total output. The technical level of production in these workshops is far higher than anywhere else at the plant. Understandably, the plant's management pays prime attention to ensuring the uninterrupted operation of the automatic lines. By contrast, in the case of conventional machinery, let alone manual production, managerial activity is primarily concerned with supervising the operation of individual technical processes.

Depending on the type of action on the subjects of labour, the instruments of labour are divided into mechanical, which represent "the bone and muscles of production" (machines, equipment, tools, etc.); those representing "the vascular system of production" (pipelines, etc.); communications equipment, which constitutes the "nervous system" of production; and buildings and installations ("the body of production").[2]

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[1] Marx, *Capital*, Vol. I, pp. 175-76.
[2] Ibid.

Taken together, the instruments of labour make up a production organism whose character and level of organisation determine the scale, intensity and results of the production process.

In socialist industry, the totality of instruments of labour forms its fixed production assets. On January 1, 1970, the total value of these assets in the Soviet Union was estimated at 208,000 million rubles, of which the buildings accounted for 29.5 per cent, installations for 21.7, plant and equipment for 25, power machinery and equipment for 8.5, transmission equipment for 8.6, measuring and registering instruments, devices and laboratory equipment for 1.1 and transportation for 4.5 per cent.

The most important part is played by those instruments of labour which directly act on the subjects of labour and determine the technology of the production process. This is the active part of the fixed assets which represents the intermediary link between man and nature.

As distinct from the instruments of labour, the subjects of labour, which represent everything to which man applies his labour, play a passive role. They are either granted by nature itself as, for instance, fish in natural waters, primeval forest untouched by man; or they are natural objects which have already been subjected to the action of human labour. In this case, the natural objects take the form of raw materials and other primary products. These are subdivided into materials forming the body of ready-made products and auxiliary materials. The latter either disappear entirely in the process of production (fuel), or are applied to the body of the product (paint), or facilitate the functioning of the instruments of labour (lubricants). The essential difference between primary and auxiliary materials in a sense disappears in the chemical industry and in certain other specific types of production where not one of the raw materials used remains "in the substance of the product".[1]

Material elements of production can simultaneously be instruments of labour and subjects of labour. For instance, a particular tool in the hands of a worker is an instrument of labour; but this same tool was a subject of labour when it was

[1] Ibid., p. 177.

being manufactured. A machine is a basic instrument of labour. But while still in process of design and manufacture, it is merely a subject of labour. This stage, during which instruments of labour are also subjects of labour, is relative and temporary. It ceases as soon as the process of manufacture is over.

However, there are many products of labour which under one type of production can serve both as an instrument of labour and as a raw material, while the finished product ready for use can again become a means of production for its own manufacture. Among such products is coal, which is consumed in the mining process; and metalworking equipment which is used in mechanical engineering. Many articles of consumption can become raw materials for the manufacture of other types of product, for instance, grape as the raw material for wine, fruit as a raw material for the production of juice and preserves. All this is explained by the many different properties of each object and by its suitability for different uses.

The land occupies a special position among the material requisites of production. The land is the universal means of labour even when it only provides a sphere of action for the labour process and gives the worker the work space. Moreover, the land is the most important means of production in agriculture.

However great the importance of instruments of labour and other material factors, it is a subjective factor, the labour activity of man, that plays the decisive role in the production process. Human labour is the active beginning and creative content of any production process. The material elements, means of labour included, are involved in the production process and are set in motion by this activity. In effect, the instruments of labour are virtually an extension and enhancement of man's organs, which he uses to impart to a natural substance the form useful to him. Even the modern electronic computer, no matter whatever magical powers may be attributed to it by the layman, proves on closer inspection to be a tool of man's brain and an intensifier of his functions.

In the course of producing material values, human beings, by acting on the subjects of labour with the instruments of labour, transform them in accordance with the desired goal.

Work transforms the subject of labour into a finished product, and human labour takes the material form of use value designed to satisfy specific human needs. But more than just consumer goods are produced as a result. Some subjects of labour, upon leaving the production process, become means of labour and, in this new capacity, are once more drawn into the production process.

The vast majority of subjects of labour, such as intermediate products, machine parts, and many raw materials, are themselves the result of the antecedent labour process.

Antecedent labour is contained in most subjects of labour, and not solely in finished products. And if the products of labour, for some reason or other, are not involved in the process of production or consumption, it means that the labour crystallised in them has been wasted.

"A machine which does not serve the purposes of labour, is useless. In addition, it falls a prey to the destructive influence of natural forces. Iron rusts and wood rots. Yarn with which we neither weave nor knit, is cotton wasted. Living labour must seize upon these things and rouse them from their death-sleep, change them from mere possible use-values into real and effective ones. Bathed in the fire of labour, appropriated as part and parcel of labour's organism, and, as it were, made alive for the performance of their functions in the process, they are in truth consumed, but consumed with a purpose, as elementary constituents of new use-values, of new products, ever ready as means of subsistence for individual consumption, or as means of production for some new labour-process."[1]

It should be borne in mind that the amount of wealth created depends not only on the labour activity of humans, the proper use of the results of their labour, but on the proper use of natural resources.

As Marx emphasised: "*Nature* is just as much the source of use-values (and it is surely of such that material wealth consists!) as labour, which itself is only the manifestation of a force of nature, human labour power."[2]

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[1] Marx, *Capital*, Vol. I, p. 178.

[2] Marx and Engels, *Selected Works*, in three volumes, Vol. 3, p. 13.

The existence of immense natural resources does not mean that we need not take the trouble to be thrifty and economical in our use of them.

A careful stocktaking of natural resources, the rational use of them, and their protection from depredation are essential conditions for increasing the wealth of a socialist society. For this reason, the CPSU Programme emphasises the need for combating soil erosion, for the judicious use of forests, water and other natural resources, and for constant care in restoring and multiplying these resources.

The area of land fit for cultivation is not unlimited. Moreover, industrial development as a rule leads to some shrinkage of the land area, since more land is allocated for non-agricultural purposes every year (industrial construction, mining, the building of roads and airfields, hydroelectric schemes and the creation of artificial reservoirs). A careful use of the land implies, first of all, the conservation and expansion of farm land, especially land under the plough, by improvement schemes. On the other hand, constant concern must be shown to improve soil fertility as a way of boosting crop yields, of getting the maximum production from a given acreage. Socialism creates very favourable conditions for doing so. These include the development of agricultural engineering, of the mineral fertiliser industry, and of other branches of the economy which are critical to the development of a solid material and technical base for agriculture and stock-farming. Under socialism, all the relevant areas of science are developed intensively to cater to the needs of agriculture. This promotes advanced farming techniques, helps to improve land fertility and makes for more intensive utilisation of the available farmland. Between 1960 and 1970, the Soviet Union was able to raise the output per acre of farmland by 17.2 per cent. If the Soviet people had not followed Lenin's advice on concern for the land, then in order to achieve the volume of agricultural produce obtained in 1970, with land fertility at the 1960 level, almost 130 million hectares more land would have been needed than is actually being used in the USSR. In the current five-year plan, improved soil fertility will save a further 15,000-18,000 million rubles. This will make it possible to recoup 13 to 16 per cent of the total investments

which are to be put into agriculture during the current five-year plan.

The rational use of forests is equally important. The forests are not only a source of timber; they have a considerable influence on the climate, the water balance and the fauna. Almost three-fifths of the Soviet Union's forestland is already suitable for exploitation. This provides a solid basis for the intensive development of forestry.

Large-scale afforestation and the protection of forests against fires, pests and waterlogging are also vital.

Misuse of natural resources hinders the growth of the country's national wealth. That is why the Soviet Government shows such concern for nature conservation and has adopted special legislative measures.

In recent times, the misuse of water resources has been causing serious concern all over the world. The construction of hydroelectric power stations in some locations has interfered with the passage of fish to the spawning grounds, and this has been having an adverse effect on fish resources. Water pollution by industrial effluents and sewage is doing even greater damage.

The Second Session of the USSR Eighth Supreme Soviet, held in December 1970, passed the "Basic Principles of Water Legislation", which took effect on September 1, 1971. This legislation calls for the rational and economical use of water, that priceless gift of nature. Unless concern is shown for the conservation and purification of water, and also for the restoration of its resources, the existing reserves may be exhausted. If this happens, colossal sums will have to be spent on restoring what nature gives us free. That is why the law has put the nation's water resources under state protection, by laying down scientifically substantiated regulations on water use and imposing strict liability both for the pollution and uneconomical consumption of water. Concern for nature conservation has as its aim to make inexhaustible this vital source of the country's wealth.

This is of special importance for the European part of the Russian Federation with its highly developed industry and relatively limited natural resources. A mere 0.2 per cent of the country's total fuel and power resources and only

2.2 per cent of the combined reserves of surface fresh water are available in that area.

The Directives of the 24th Congress of the CPSU for the Five-Year Economic Development Plan of the USSR for 1971-1975 stress the need for the rational use of the country's natural resources and for more intensive nature conservation. A system of measures has been outlined which, when carried out, will make it possible to improve the forest industry, use the forest reserves and land more efficiently, increase soil fertility and also the productivity and quality of the country's forests. Measures will be carried out for re-afforestation and protective afforestation over an area of 12 million hectares. A total of 1.3 million hectares of forestland will be drained. The forest fire-fighting services are being improved.

The 24th CPSU Congress called attention to the need for making enterprises, institutions and organisations more responsible for the proper use of the land, water, the atmosphere, minerals, and also for the timely restoration of vegetation and wild life. This testifies to the constant effort shown by the Communist Party to add to the nation's public wealth and to improve the welfare of the people.

THE YARDSTICK OF WEALTH

In developing and using instruments of labour, human beings constantly advance and improve the production process as a whole and each of its components. The work force is constantly being improved, the instruments of labour become more sophisticated and efficient, and the subjects of labour more diverse. In this process of development, the primary and determining factor is time economy.

Marx wrote, "In the case of each individual, as for society as a whole, his all-round development, consumption and activity depend on time economy. Any kind of economy in the final analysis is time economy."[1]

This law is universal; that is to say, it operates in all socio-economic systems. Time, as a form of the existence of

[1] Marx, *Grundrisse der Kritik der Politischen Ökonomie*, 1939, S. 89.

matter, has always been of major importance for the progress of human society. To quote Marx again, "Time is the space for human development." The results of production and of all human activity depend on the effectiveness with which this space is used.

In pre-revolutionary Russia, the law of time economy operated largely as a spontaneous force and as the prevailing trend of society's development liable to constant violation. Even under capitalism, where the bourgeoisie follows the well-known adage, "time is money", time economy is merely a by-product in the capitalist drive for greater profits. Under capitalism, the exploiters seek to usurp all time saved just as they usurp all the other blessings of life.

Under socialism, the situation is quite different. A socialist society consciously seeks to save time, regarding this as a necessary condition for increasing social wealth and promoting the comprehensive development of working people. Today we are witnessing the realisation of Marx's prediction that on the basis of collective production "time economy just as planned distribution of labour-time by different branches of production continues to be the prime economic law. In fact, it is becoming a law of greatest significance".[1]

The saving of working time is of primary importance for increasing the wealth of a socialist society.

Why is this so?

Living productive labour creates new material values and, together with nature, is a source of wealth, its creative substance. Raw materials, intermediate products and components are the basis of the finished product. In the process of goods manufacture, instruments of labour, on the making of which labour was also once expended, become worn out. This means that a new product contains the expenditure of antecedent labour. At the same time, the new product embodies the labour directly expended on its manufacture.

This ability of labour (to transfer already crystallised labour and create new value) stems from its dual character, the discovery of which Marx considered exceptionally important for an understanding of economic processes.

On the one hand, labour is performed in a definite and

[1] Ibid.

specific manner necessary for the creation of definite use values and, in this case, it represents specific labour.

On the other hand, any production process involves the use of a work force, that is to say, it entails the expenditure of man's physical and mental energy. To this expenditure of human labour in general, which is a feature of any type of labour irrespective of its specific form, Marx gave the term "abstract labour".

Specific labour, then, is labour of a definite type, while abstract labour is human labour in general. Specific and abstract forms of labour are the two sides of the same coin. In creating use values, specific labour transfers to the new product the abstract labour already embodied in the means of production and crystallises new quantities of abstract labour. Specific labour does not allow the human energy expended in the production process to vanish without a trace. Take whatever type of material wealth we will, it inevitably contains materialised human labour.

But the labour process takes place in time.

"Just as motion is measured by time," wrote Marx, "so is labour by *labour-time.*"[1] Since during the labour process human beings interact not only with nature but with one another and inasmuch as this process occurs in a definite socio-economic environment, labour time is both a natural and social measure of labour.

But if labour time is a measure of labour, it is also a measure of the products of labour in which it is materialised. For this reason, wealth represents crystallised labour time.

Any type of material wealth is, in Marx's definition, merely a transitory materialisation of social labour, "crystallisation of the production process whose measure is time, the measure of a movement itself".[2]

In commodity production involving the labour of workers of different skills and a certain isolation among the producers, labour time as a social measure of wealth takes the irrational form of value. This is expressed in monetary terms and manifests itself as price. In the process of exchange,

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[1] Marx, *A Contribution to the Critique of Political Economy*, London, 1971, p. 30.

[2] Marx, *Theories of Surplus-Value*, Part III, p. 429.

individual and qualitatively very different expenditures of labour are reduced, as it were, to a common denominator. The common denominator is, as Marx put it, "the expenditure of simple labour-power, i.e., of the labour-power which, on an average, apart from any special development, exists in the organism of every ordinary individual".[1]

Different forms of labour differ from one another in kind, since each has its own specific form in the course of producing a definite use value. But for all their differences, specific forms of labour have one thing in common, namely, each is at the same time abstract labour. Therefore, any form of labour, when expended purposefully, is a substance of value.

In 1969, the Soviet Union's gross social product was estimated at 587,000 million rubles. Of this total, 261,700 million were spent on newly created values, viz., national income, while the rest, 325,300 million, went to cover the cost of the means of production used.

The value expression of the 1969 gross social product, therefore, represented the labour of all those engaged in material production in that year plus the past labour as embodied in plant and equipment, intermediate products, components and other material factors of production, and transferred to the newly manufactured gross social product.

If the quality of the labour expended is of decisive importance in creating use values, the magnitude of value is determined by the quantity of labour already commensurate with the simple average labour.

When we say that a table costs 27 rubles, it means that the same amount of labour time (given the socially normal labour intensity) was expended on the making of the table as on the mining of gold, as represented by 27 rubles.

Under socialist commodity production, labour is simultaneously a process of manufacturing use values and of creating value. This duality of labour manifests itself in the duality of the production process. What matters here is how labour is performed and what it produces. Of no less importance is the time taken and the price paid in terms of human energy to produce use values.

It stands to reason that, other things being equal, the

[1] Marx, *Capital*, Vol. I, p. 51.

more products a society turns out per unit of time, the richer it is.

According to the annual inter-industry balance sheet the production of the necessary amount of food in the Soviet Union takes the labour of 32.4 million year-workers. Of this total, 23.8 million are contributed by agriculture, 2.6 million by the food industry, 1.7 million by other industries, and 4.3 million by the transport, supply and retail systems. The production of the necessary amount of clothing and footwear requires the labour of 8.7 million year-workers. Consequently, to provide adequate quantities of food, clothes and footwear for the Soviet Union's population, over 41 million people, or over 37 per cent of the country's total labour force, have to work full time all the year round.

The production of meat and meat products alone requires the labour of 9.2 million year-workers. These labour expenditures have a decisive influence on the prices of the use values concerned. The growth of labour productivity in stock-farming and in the meat industry will make it possible to meet the demand for these basic foods more fully on a smaller outlay. This will also lead to a reduction in prices.

"...Real wealth," wrote Marx, "consists in ... that the greatest possible abundance of material wealth is created in the shortest possible labour-time."[1]

Of late, a mass campaign has been launched at enterprises in Moscow and other cities for making the most of every minute of working time. Why? Because time is irreversible and working hours wasted mean wealth lost forever.

In different periods of history, the law of time economy manifested itself differently and affected production in a variety of ways (forced labour, competitive struggle, profit-hunting, etc.). But the result of that law's operation in the sphere of production has invariably been a shortening of the production cycle and of labour time. This leads to a corresponding increase of free time. Under capitalism, the bourgeoisie regards free time as its monopoly and seeks to turn any increase in labour productivity into extra labour time, which is then realised as profit.

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[1] Marx, *Theories of Surplus-Value*, Part III, p. 256.

Table 2

Total amount of time available to working people				
	off-work time (76-75 per cent)			
working time (24-25 per cent)	time spent on activity related to production	time spent on domestic work and similar activity	time spent on meeting one's natural physiological needs	free time
time spent at work directly breaks and rest periods during working day idle time and non-productive activity	travelling to and back from work time from arrival at place of work to starting work and from finishing work to leaving place of work	shopping for food-stuffs shopping for consumer goods other than food cooking cleaning and similar household chores looking after clothes, footwear and linen looking after children work on individual subsidiary plot other activity	personal hygiene, etc. taking meals (including the lunch break at work)	community work as a free public service self-education upbringing of children rest and recreation creative pursuits and amateur activities sports and physical culture study

Under socialism, free time is itself a form of wealth owned by the working people. At first glance, this wealth is hardly tangible, but it is making itself felt more and more with every passing year. Free time does not mean the whole time outside working hours, but only that part of it which the working man uses "for rest, for his development, and for the enjoyment of his rights as a human being, a family man, and a citizen".[1]

If, broadly speaking, time is the space for human development, then free time is an especially important part of this space. Table 2 illustrates the approximate composition of the time budget of the average Soviet worker.

In emphasising that, at the higher stage of communism, the developed productive capacity of all individuals will be a very real kind of wealth, Marx concluded: "Then free time will be the measure of wealth and not labour-time."[2]

Free time under socialism becomes a measure of social wealth. The point is that free time increases in direct proportion to the growth of labour productivity and of public wealth. Apart from that, free time is an important factor in creating material benefits. Indeed, it is indispensable for "the full development of the individual which, itself a mighty productive force, exerts, in its turn, an impact on the productive power of labour".[3]

The growing importance of free time as society progresses towards communism does not belittle the importance of labour time. Labour time, even when commodity production has withered away and exchange value has disappeared, "always remains the creative substance of wealth and the measure of the *cost* of its production".[4]

SPECIAL FEATURES OF THE LABOUR PROCESS UNDER SOCIALISM

Under capitalism, the means of production take the form of constant capital as a means of exploiting hired labour. Under socialism, they cease to be a capital, becoming production assets which belong to the working people them-

[1] V. I. Lenin, *Collected Works*, Vol. 2, p. 300.
[2] Marx, *Grundrisse der Kritik der Politischen Ökonomie*, S. 596.
[3] Ibid., S. 599.
[4] Marx, *Theories of Surplus-Value*, Part III, p. 257.

selves. Thus, the means of production have been transformed from an instrument of exploitation into the material basis of production designed to ensure the ever fuller satisfaction of the social and personal needs of the working people in socialist society.

Production assets differ from constant capital in ownership (property of the workers themselves); origin (the result of the creative labour of the working people, not of exploitation); their intended use (not for the enrichment of the few but for the achievement of the best production results in the interests of the comprehensive development of all members of society); method and forms of functioning (not as isolated and opposing aspects of social production but rather the closely interlocking elements of a single production process); and the nature of development and use (not spontaneous, but planned).

The change in the socio-economic nature of the material factors of production has a momentous influence on their subsequent development and the organisation of their use. This has affected, in the first instance, the instruments of labour. Public ownership in the Soviet Union has created a situation where everyone has a stake in their improvement and development, since the instruments of labour have been transformed from a means of subordinating labour to capital into a means whereby the forces of nature are being progressively subordinated to the workers' society.

The accelerated growth of the Soviet Union's productive capacity, physical energy and intellectual potential through technological progress under socialism, was not checked either by economic blockades or the destructive wars unleashed against it by the imperialists. The share of the output of the means of production in the Soviet Union's total industrial output increased from 39.5 per cent in 1928 to 73.8 per cent in 1969. The use of electricity in production has increased more than 40 times during the years of the Soviet government. The fixed assets in industry estimated in terms of value for 1969 were 68.3 times what they were in 1913. Between 1966 and 1970, over 1,500 major industrial enterprises were built and put into operation. Fixed assets in the Soviet economy as a whole increased by 50 per cent.

Scientific research establishments, design and R & D organisations and industrial enterprises are working on problems associated with the building and launching into production of up-to-date and highly efficient machinery and equipment, as well as introducing advanced technologies, mechanisation and automation. Between 1969 and 1970 alone, a total of 5,700 new models of machines, equipment and devices and about 2,000 new types of instruments were developed and launched into production.

In 1970, the power industry produced a total of 240,000 million kilowatt-hours. Other industries which shape technological progress are developing rapidly. In mechanical engineering, important structural shifts are in progress, and these ensure the priority output of automatic and semi-automatic lines, instruments, and automation equipment, particularly computer hardware.

At the 24th Congress of the CPSU, A. N. Kosygin stated: "Major qualitative changes have taken place in industry on the basis of modern scientific and technical achievements."[1] The organic fusion of the advantages of socialism with the colossal opportunities generated by the scientific and technological revolution is a potent accelerator of this country's progress towards the higher stage of communism.

The results of Soviet economic development in recent years are striking evidence of the Soviet Union's growing economic potential.

It took the USA twenty years to double its national income, Britain—thirty years, and the FRC—some fifteen years. The Soviet Union, despite formidable difficulties, doubled its national income in the space of ten years. Soviet industrial production doubled in eight and a half years. By comparison, this took the United States 18 years, Britain—22, and the FRG—over 11.

The fixed assets in the Soviet economy doubled in eight years. The United States took as long as 22 years, Britain—19, and the FRG—10.

At the 24th Congress of the CPSU, A. N. Kosygin said: "Such are the strides of the socialist economy. They provide convincing evidence that our economic development is

[1] *24th Congress of the CPSU*, p. 139.

balanced and dynamic. None of these capitalist countries has an economy that is as dynamic."[1]

The socialist system of production has radically changed the role of the subjects of labour. In this country they have ceased to be the material basis of circulating capital and become involved in the economic cycle not for the sake of absorbing ever greater quantities of unpaid labour, which is so much a feature of capitalism, but rather as the circulating part of the productive assets. Their movement is ultimately governed by the fundamental economic law of socialism. All of society is vitally interested in speeding up their turnover and in their more efficient utilisation. The quicker the turnover of the subjects of labour (from arriving at the enterprise to leaving as finished goods), and the more efficiently they are used, the more fully can society's needs be met.

As socialist production develops, the material composition of the subjects of labour changes considerably. The share of raw materials and intermediate products better suited for subsequent processing into finished products grows, as does the output of more durable and more economical materials. The quality of ferrous metals, in particular, goes up, the output of the more economical types of rolled stock, tubes and metal products increases and their range is widened. The standardisation of parts and components is being used more extensively. The development of synthetic subjects of labour with pre-set properties is gaining in practical importance. All this, while contributing to the growth of the country's production potential, makes for more exacting demands on its efficient utilisation.

The production reserves account for most (over 70 per cent) of the circulating assets in Soviet industry. These consist of raw materials, basic materials and purchased intermediate products (45.8 per cent), auxiliary materials, fuels (8.1 per cent), spare parts for repair work (4 per cent), tools, and a wide variety of accessories and other fast-wearing low-cost parts and components (9.8 per cent). The second major category of the circulating assets is represented by unfinished and intermediate products of home manufacture. These account for over 24 per cent of the total.

[1] Ibid., p. 154.

In the meantime the size, capacity and speed of working mechanisms have grown immeasurably, and many operations are now performed with a high degree of precision. Enterprises are being equipped with increasingly sophisticated plant and machinery. The advent of every new type of machine serves to develop further the social division of labour generally and also the division of labour inside individual sectors of production. Hundreds of different enterprises participate in the manufacture of certain products.

As a result, the production process is now facing the subjective factor with demands which no individual worker can hope to meet. But then the isolated worker is entirely a thing of the past. The co-operative character of labour in mechanised production implies the replacement of individual, isolated producers with what is known as the "aggregate worker", with his many different faculties, functions and subordinate functions.

The aggregate worker is taken to mean the integrated, combined working personnel who make the production process possible. In the modern industrial enterprise this refers to production personnel made up of workers of various skills and qualifications, learners, engineers, technicians, and office employees.

The growing development of socialist production relations and the changed socio-economic nature of the material factors in production have brought about profound changes in the aggregate worker, that representative of productive labour. This has turned the worker from a simple agent of production and an object of exploitation into the leading force of social development in its entirety.

The fundamentally new position of the worker within the system of social production underlies his vital interest in the fullest possible use of the material and personal factors of production, in the marshalling of all available resources to raise the efficiency of social labour. At the same time, it lends a nation-wide character to the task of promoting the continual improvement in the skills and qualifications of the labour force, of augmenting its efficiency and ensuring its fullest possible productive utilisation, with labour intensity staying within socially normal limits.

The emergence and subsequent development of the aggre-

gate worker has given a new dimension to the notion of productive labour and its representative—the production worker. To quote Marx again: "In order to labour productively, it is no longer necessary for you to do manual work yourself; enough, if you are an organ of the collective labourer, and perform one of its subordinate functions."[1] Under these conditions, the definition of productive labour applies fully to the collective labourer considered as a whole.[2]

Whereas in small-scale commodity production the results depended primarily on the labour of the operator concerned, the development of social division of labour has produced a situation where the individual worker no longer produces the finished article. He performs only some of the operations involved in the highly complex and ramified process of social labour, the end result of which can only be measured by the overall expenditures on the manufacture of the product. Any product, however small or insignificant, contains the labour of many people of various trades and professions who belong to different social groups.

Under these conditions, the smooth running of the production process is dependent upon a wide range of factors. In particular, it is important that the aggregate worker as a whole and, consequently, each individual worker, should possess exactly the qualifications required, so that the duration and intensity of labour during the performance by the combined working personnel of each function and sub-function will conform strictly to the principle of compatibility. Whereas in conditions of individual labour differences in the parameters of labour power affected only the results of the effort of isolated workers, under a collective system of labour, any violation of the compatibility principle immediately damages the entire production process.

In mechanical engineering, for instance, delays during work shifts amount to 13-18 per cent of the total shift time. Most of these delays arise from poor labour co-operation. As a result, almost one-fifth of the total labour time is wasted. Delays in Soviet industry as a whole amount to 5-6

[1] Marx, *Capital*, Vol. I, pp. 508-09.
[2] Ibid., p. 509.

million year-workers. It is easy to see the damage these losses do if one considers that, to take only one example, one minute's stoppage of the machinery per shift at the Leninist Komsomol Motor Factory in Moscow reduces the factory's annual output by 150 motor cars, while at No. 1 Watch Factory it results in a loss of over ten thousand rubles per year.

The improvement in the cultural and technical level and the professional composition of the work force is determined primarily by production necessity and is subject to the requirements of the production process. If, for instance, industry needs one million engineers and four million technicians, it exactly this number must be trained. Failure of the aggregate work force to meet the requirements of social production is inevitably detrimental to the latter's efficiency.

The composition of the aggregate work force is changing under the impact of social and scientific and technological progress. These changes manifest themselves particularly in the rapidly growing numbers of engineers and technicians and the declining numbers of clerical staff. Between 1928

Table 3

Number of People with Higher and Secondary (Full and Incomplete) Education per 1,000 of Population

	1939	1959	1970
Total working population			
full higher education	13	33	65
incomplete higher, secondary and incomplete secondary education	110	400	588
total of those with higher and secondary education	123	433	653
Those working in urban areas			
higher, secondary (full and incomplete) education	242	564	748
Those working in rural areas			
higher, secondary (full and incomplete) education	63	316	499

Source: "Population of the USSR", data released by the USSR Central Board of Statistics, *Pravda*, April 17, 1971.

and 1969, the proportion of engineers and technicians in the Soviet Union's overall industrial work force grew from 3 to 12 per cent, while the proportion of white-collar workers declined from 6 to 4 per cent. The number of brain workers increased from 2.9 million in 1926 to 27.4 million in 1967, and is still growing.

A rapid improvement in the general educational standards of all categories of workers has been a notable feature of this country's recent economic development.

The steady improvement in skills and qualifications, the dwindling numbers of manual workers, particularly in the physically exacting jobs, the increase in the number and proportion of machine operators, the growing role of mental work, the training of industrial personnel in an ever widening range of trades—all these combine to upgrade the skills and qualifications of the able-bodied population, something that the founders of Marxism considered exceptionally important.

In this way, socialism brings about profound qualitative changes in the socio-economic content of the key factors of production, opening the excellent opportunities for improving them with a view to enhancing the economic potential.

The special features of the material and personal factors of production under socialism can be seen in the way manpower is linked to the means of production, and also in the content of the labour process itself. An understanding of these special features is essential for increasing a socialist country's national wealth through higher production efficiency.

Under socialism, all means of production are public property. They belong to the producers as a whole, but not to any one of them individually. This being so, the workers also are inseparably linked with the collective. The labour of the individual worker can be used, as an exception only, in subsidiary farming and in individual households, although here, too, there is labour co-operation by members of the family. Individual labour power, as a rule, is part of the labour power of the aggregate worker and can only be used productively as such.

Consequently, the key distinguishing feature of the labour

process under socialism is the tying up of the aggregate worker's combined labour power with the means of production which belong to this worker and which are used in the interests of society as a whole. This tie-up is due to the economic dependence of the individual worker on the collective, and also to the community of the workers' material interests. These latter are formulated in the goal of socialist society—to ensure the ever fuller satisfaction of the material and cultural requirements of that society for the comprehensive development of all of its members.

Even in the first years of Soviet power, Lenin stated: "For the first time after centuries of working for others, of forced labour for the exploiter, it has become possible to *work for oneself* and moreover to employ all the achievements of modern technology and culture in one's work."[1]

Thus, already under socialism, the link between labour power and the means of production is based on the community of the working people's economic interests, on their mutual dependence. Consequently, production is organised, guided and regulated by their joint efforts to improve the well-being of all. In bourgeois society, living labour is merely a means of increasing the wealth of a few. "In Communist society, accumulated labour is but a means to widen, to enrich, to promote the existence of the labourer."[2]

Under socialism, however, the position of different workers in the production process is not yet identical on account of the insufficient development of material factors and also of the subjective factor. Not all of the workers are fully aware of the logically self-evident community of interests of the enterprise and its workers. At the present stage, there is still a need for a special and elaborate system of organisational and economic relationships which will help to make the connection between the interests of the individual worker and those of society as a whole more tangible.

As Lenin pointed out: "It will take many years, decades, to create new forms of social ties between people, and new forms and methods of drawing people into labour."[3]

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[1] V. I. Lenin, *Collected Works*, Vol. 26, p. 407.
[2] Marx and Engels, *Selected Works*, in three volumes, Vol. 1, p. 121.
[3] V. I. Lenin, *Collected Works*, Vol. 30, p. 518.

At the lower stage of communism commodity-money relations, with their new content, play an important part in shaping the forms of which Lenin spoke. These relations mediate the link between the workers and the means of production, the movement of the production process, the distribution of the results of that process and the relationships between working collectives and between individual workers. This is of very considerable importance at the lower stage of communism and must constantly be taken into account in organisational and economic activity, otherwise mistakes and failures are inevitable. Commodity-money relations are an objective necessity and due account should be taken of them in the management of the economy and in implementing the economic reform.

When the efforts of individual workers are brought together to form the combined labour power of the aggregate worker and when the latter is united with the means of production, the operation of commodity-money relations in the case does not mean that labour power is being bought or sold. Production workers, as the joint owners of the means of production, cannot buy labour from themselves any more than they can sell their labour to themselves. The procedure for employing and dismissing workers under socialism is based not on the sale and purchase of labour power, but rather on the community of the interests of the individual and the collective. This is a vital manifestation of equal economic relations among members of a socialist society. Value relations give a somewhat distorted idea of the essence of the socialist production process but the essence is there, since the basic elements of the labour process—labour power and the means of production—have been united by virtue of their common social nature. In the production process itself, the individual worker as a collective owner of the means of production, together with the rest of society, uses his labour force as part of the aggregate labour force, in consequence of which his own labour assumes an immediately social character. Personal participation in social production becomes the sole source from which man can satisfy his needs. Socialism, for the first time in human history, gives great scope for developing creative activity, initiative, and competitiveness on a truly mass

scale, and to attract the majority of the working people into the kind of work "in which they can display their abilities, develop their capacities, and reveal those talents, so abundant among the people whom capitalism crushed, suppressed and strangled in thousands and millions".[1]

The emancipation of the toiling masses from exploitation does not mean that in social production the individual worker is free to do as he pleases. Economically and socially, he is tied up with society which, through the state, its machinery or its elected organs, guides the development of the material and spiritual life of society in the interests of communist construction.

A second important feature of tying labour power in with the means of production under socialism is that along with the labour power functioning in social production, a considerable proportion of the able-bodied population still work outside the system of social production, in subsidiary farming and housekeeping. This is an "objectively necessary survival" of the old society, as it were. In 1966, of the Soviet Union's 130.5 million able-bodied population, some 60 million year-workers are engaged in this non-socialised sector of material production.[2] The linking of the labour power in subsidiary farming and housekeeping to the means of production is based on the personal property and personal interests of the individuals concerned. Very often, one and the same kind of labour power functions both in social production and in subsidiary farming or housekeeping. This dual functioning of labour power must not be neglected by those responsible for managing and guiding socialist production.

Socialist production is essentially a process of producing use values which are needed by society and which, together with the product from subsidiary farming, form the aggregate social product, the basic component of national wealth. Since the population's needs steadily grow up as they are met, the socialist society strives to increase the aggregate social product every year. This is vital for expanding and improving the material basis of production, for increas-

[1] V. I. Lenin, *Collected Works*, Vol. 26, p. 404.
[2] *Sociology in the USSR*, Vol. 2, Moscow, 1966, p. 222 (in Russian).

ing the wages and salaries of those engaged in material production, for developing the non-productive sphere without which the continued existence of socialist society is impossible, for strengthening the country's defence potential, and for ensuring that the Soviet people are able to discharge their internationalist duty.

As socialist production develops, the means of production expended in the process are constantly reproduced. In terms of value, this part of the gross social product forms what is known as the replacement fund. At the same time, the means of subsistence fund or the necessary product for those engaged in material production is reproduced, and a surplus product created. Taken together, the means of subsistence fund and the surplus product, as distinct from the replacement fund, constitute society's net product, or national income. In 1970, the national income of the USSR amounted to 266,300 million rubles, some 44.5 per cent of the GNP. The remaining 55.5 per cent was accounted for by the replacement fund.

The production of the surplus product is not peculiar to socialism. Marx wrote: "Surplus-labour in general, as labour performed over and above the given requirements, must always remain."[1] Under socialism, the surplus product becomes the property of the working people and no antagonism arises between the necessary and surplus labour and product.

The immediate purpose of socialist production is not only the replacement of the consumed product, but also the creation of the surplus product, which belongs wholly to the working people and to them alone.

The fundamental difference between capitalism and socialism lies precisely in who owns the surplus product.

As early as 1920, Lenin, commenting on Bukharin's book, *The Economy in the Transition Period*, noted the unsoundness of the definition of socialism as a system of production whose purpose is to meet social needs, as distinct from capitalist production, which is profit-motivated. Lenin wrote at the time: "No good. Profit goes to satisfy 'social' needs

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[1] Marx, *Capital*, Vol. III, Moscow, 1971, p. 819.

too. It should be put this way: 'Where the surplus product is appropriated not by the owners class but by all working people and solely by them.' "[1]

In the Soviet Union the surplus product, like the necessary product, goes to meet the needs of the working people. A sizable portion of this product comes back to its producers not only in a roundabout way, as to members of society generally, but also directly. The explanation here is that the living standards of the working people are steadily rising, and part of the surplus product is spent on expanding the means of subsistence fund. As a result, part of the surplus product in any given year is carried over to the following year's necessary product.

Thus, the means of subsistence fund for those engaged in material production, i.e., the necessary product, although determined under socialism by concrete historical conditions and the existing consumption level, is by no means static. It is, on the contrary, dynamic, and this makes for the harmonious development of the physical and mental capacities of the working people.

Socialist production does not merely supply goods needed by society, it supplies goods having use value and value. The production process therefore combines the labour process and the process of creating values. But the increase in value is not the guiding motive of this process, as under capitalism when "use-values are only produced ... because, and in so far as, they are the material substratum, the depositories of exchange-value".[2]

Under socialism, by contrast, the immediate purpose of production is the output of the maximum quantity of high-quality use values needed by society. The increase in value is meaningful in so far as it reflects the growing amount of the use-value product. Value here is not an aim in itself, but a means assessing the expenditures of social labour, of making people materially interested in preventing waste of labour, and also for measuring the amount of the different kinds of use values produced. Value makes it possible to compare the outlays on production with the results, and

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[1] *Lenin Miscellany XI*, p. 381 (in Russian).
[2] Marx, *Capital*, Vol. I, p. 186.

helps to obtain maximum results with the available production facilities.

Money under socialism is not the alpha and omega of the production process, as it is under capitalism, but is rather one form of measuring production magnitudes and the movement of the social product. As an irrational expression of labour time, money reduces to a common denominator expenditures of means of production and labour power, on the one hand, and the results of production on the other.

In this way, the newly created value is labour time as crystallised in the product. This crystallised time finds its irrational expression in the form of money. Furthermore, the greater the difference between the value expression of the total social product, on the one hand, and the replacement and the means of subsistence fund taken together, on the other, the greater will be the useful result of labour. Since the replacement fund performs a permanent function in the creation of values, then, other things being equal, the effectiveness of the production process is determined by the difference between the net product (national income) and the necessary product (the means of subsistence fund).

In 1969, for example, the Soviet Union's national income produced by industry was 140,300 million rubles; the average annual wages, together with payments and benefits out of the social consumption funds were 2,028 rubles; and the industrial work force numbered 31.2 million people. Thus, the means of subsistence fund of the industrial population was 31.2×2,028=63,273.6 million rubles. The surplus product was 140,300—63,273.6=77,026.4 million rubles.

The production process under socialism makes social sense only when the national income exceeds the socially necessary product. Otherwise the production process could not be repeated on an enlarged basis, and this is alien to socialism. Consequently, productive labour in a socialist society is not merely labour engaged in material production, but labour which is engaged in material production and which is also creating a publicly owned surplus product.

The overall formula of the movement of socialist production, therefore, may be expressed not as $M—M^1$, as under capitalism, but rather $SP_t^0—SP_t^1$, where SP_t^0 is the total

social product that has entered social production and SP_t^1 is the total social product produced in a given year. The surplus product is the difference between $SP^1{}_t - SP^0{}_t$ or, put another way, the difference between the end total product, on the one hand, and the replacement fund expended on the product's manufacture plus the necessary product, on the other.

Since commodity-money relations under socialism are an objective necessity, outlays on production and the results of that production are estimated in terms of money. The entire process of socialist production is mediated by commodity-money relations in one way or another. As a result, the labour process, too, has a dual character. On the one hand, it is a process of producing use values needed by society, and this is the dominant feature of socialist production. On the other hand, it continues as a process of creating value, something that is subordinate to the creation of use values. This dual and contradictory character of the labour process under socialism requires that use values are not created at any cost but with a minimum expenditure of living and past labour, an irrational expression of which is value.

In 1968, the initial social product which supported Soviet industrial production that year was estimated at about 288,000 million rubles. This product was made up of the fixed and circulating assets expended in the process of production to form the replacement fund, estimated at 229,000 million, and the subsistence fund of the industrial population, estimated at 59,000 million rubles. In 1968, Soviet industry produced a gross product valued at 356,000 million rubles, so that the 1968 surplus product was 356,000—288,000=68,000 million rubles. In 1969, it increased to 77,000 million.

Labour under socialism should be regarded both from the standpoint of quality as labour resulting in use values and also from the standpoint of quantity, in terms of total value. The time spent on the production of definite use values should be socially necessary.

This means that labour power should be used only under socially normal conditions, that is to say, when the instru-

ments of labour are not yet obsolete and the subjects of labour are of the required quality. Otherwise, part of the labour time would inevitably be wasted and the productivity of labour would go down, with all the undesirable consequences this would have for society.

The character of labour power itself is a major factor in the production process. In the trade in which it is being employed, "it must possess the average skill, handiness and quickness prevalent in that trade".[1]

The management and the workers themselves must see to it that labour power is used at a socially normal intensity and that not a single minute of labour time is wasted. Otherwise, the workers will be robbing themselves. In the same way, it is in their interest to economise in the means of production, since the latter, as technological progress advances, play an increasing part in the creation of values.

For instance, if an engineering factory has dated plant and equipment, is supplied with inferior metal, and lacks an adequately qualified work force, the labour intensity consumption per unit of product and production costs will be 50 to 100 per cent higher than the average for the industry as a whole. As a result, the factory will fail to make a profit and will be unable to build up economic incentives funds. The workers at that factory will thus be worse off compared to those elsewhere. At the same time, the factory's poor performance will harm the whole of society, since the high production costs at this factory will tend to inhibit the growth of the country's national income.

A maximum of the socially appropriated total product on a minimum of living and past labour expenditures is a law governing the development of socialist production. Under socialism, the rate of surplus product $\left(\frac{SP}{\overline{NP}}\right)$ indicates not the extent of labour exploitation, as under capitalism, but rather the rate of growth of the total social product and the growth of opportunities for an ever fuller satisfaction of society's needs.

In 1968, the norm of surplus product in Soviet industry was: $P^1=(68\div59)\times100=115\%$. In 1969, it reached 121%

[1] Marx, *Capital*, Vol. I, p. 196.

[(77÷63.6)×100]. This growth indicates greater opportunities for solving the pressing social and economic problems facing Soviet society. One result of this growth was that in 1970 the average monthly wages were raised by four per cent. Together with the payments and benefits from the social consumption funds, average monthly earnings amounted to 164 rubles compared to 158 rubles in 1969. The growth of the rate of the surplus product and, as a consequence, of the size of that product due to higher production efficiency, enabled the Soviet Union to carry out a series of major measures without overstraining the state budget and without upsetting the money circulation in the country.

The reproduction of labour power under socialism is ensured through the necessary and the surplus product. The necessary product takes the form of wages and the benefits provided out of the social consumption funds which are at the disposal of the country's gainfully employed population. Expenditures on raising wages and other indicators of the living standards of the working population come from the surplus product.

When Marx defined the surplus product as labour over and above the given requirements, he was referring to the fact that the level of these requirements for each production period is set by the preceding production period. This level is not ideal, of course, for in a socialist society it constantly rises on account of the society striving to meet the requirements of the working people in line with scientifically substantiated patterns of consumption ensuring the full and harmonious development of healthy and normal persons.

THE ROLE OF THE SOCIALIST ENTERPRISE IN CREATING SOCIAL WEALTH

Social production under socialism is carried on by enterprises which are independent in their day-to-day conduct of business.

The socialist production concern is the primary unit of the economy. Its activity is based on the combination of centralised management with the economic independence and initiative of individual enterprises. The two forms of

public ownership existing in the Soviet Union are represented by the two types of enterprise: state-owned and co-operative-owned. This country has a total of 50,000 industrial enterprises, 16,000 building organisations of all kinds, 14,300 state farms, and also transport and other enterprises engaged in material production. Alongside the state-owned enterprises there are 34,700 collective farms and numerous inter-collective farm organisations.

All socialist enterprises form a single system of national economy called upon to increase social wealth in keeping with the paramount task of meeting the growing material and cultural requirements of the people. The activity of the individual enterprise is, ultimately, geared to the achievement of this supreme goal.

In as much as the production activity of the individual enterprise and its links with the rest of the national economy are affected by the existing commodity-money relations, the record of expenditures and results of production activity is kept both in natural and value terms.

The basic special features and laws governing the socialist production process as a whole also fully apply to the operation of the individual enterprise. The only difference being that, in the latter case, they are expressed in specific economic categories which characterise the relationships between individual workers and the production collective and between the production collective and society as a whole.

Among the economic categories characterising the operation of enterprises, prime cost is pre-eminent. Prime cost is the monetary expression of the outlays made by a given enterprise on manufacturing its products and, as such, reflects the efforts of the enterprise's work force to save material and personal factors of production. Prime cost, then, is the key factor of price.

At the same time, prime cost gives an idea of the relationship existing between a particular production collective and society. In defining profit as the difference between the market price and prime cost, society sets, for a given production collective, standard limits on the amount of permitted expenditure per unit of output. Labour expenditures are incorporated in prime cost in the form of wages,

a record of which is kept by the enterprise itself. By regulating wages, profit and turnover tax, society is in a position to use part of the newly created value for meeting the requirements of society as a whole. "After a deduction is made of the amount of labour which goes to the public fund, every worker, therefore, receives from society as much as he has given to it."[1]

In terms of quantity, prime cost represents the amount of expenditures, without replacing which the enterprise cannot possibly resume production, not even on the same scale. This being so, Soviet enterprises are assigned planned targets for profit. In this way, society, through the state and its economic agencies, controls each enterprise, guiding it towards the effective utilisation of its production facilities and making it keep within the approved limits of socially necessary labour expenditures.

The difference between a value which finds its monetary expression in the retail price and the overall expenditures on the production and marketing of products forms the net income of society, which must not be confused either with the net product (national income) or with the surplus product. Indeed, it differs from the former in that it does not include expenditures on wages and salaries, and from the latter, in that it does include that part of the necessary product which is used by those engaged in material production through the social consumption funds.

In 1969, Soviet industry's gross output was estimated at 381,000 million rubles. The material expenditures (which went to replace the means of production used) amounted to 241,000 million. The national income produced in industry was therefore 140,000 million rubles. If we subtract the 48,000 million rubles used to pay wages and salaries to the total industrial work force, we shall arrive at the net income: 140,000—48,000=92,000 million rubles. The surplus product was smaller than the net income by the value of the social consumption funds drawn upon by the industrial population. If we assume that the payments and benefits provided out of these funds totalled 15,000 million rubles, then the

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[1] V. I. Lenin. *Collected Works*, Vol. 25, p. 465.

surplus product produced by the aggregate worker in 1969 was 77,000 million rubles (92,000—15,000=77,000).

In actual fact, the net income of society consists of turnover tax, which forms the state centralised net income, and profit, or net income, of the socialist enterprises.

Between 1960 and 1969, the monetary accumulations in the Soviet economy (exclusive of the collective farms) went up from 65,200 to 121,700 million rubles, of which 25,200 to 72,700 million came from profits, and 31,300 to 44,500 million from turnover tax.

Profit under socialism is that part of the net income which the state puts in a planned way through market prices at the disposal of enterprises as an addition to their prime costs. The profit is used to provide financial inducements to the workers and enables production collectives to improve and expand their operations. Profit is a category designed to combine economically the interests of the individual production collective with those of society as a whole. Profit under socialism, apart from its name, bears no resemblance to profit under capitalism, where it is a form of appropriation of surplus value by the bourgeoisie.

Profit made by socialist enterprises is in no way a monetary expression of the surplus product. Indeed, it is smaller than the surplus product by that amount which, as turnover tax, is paid into the state centralised net income. At the same time, profit comprises part of the necessary product, since the profit is used to provide extra rewards for highly productive labour and to form part of the means of subsistence fund for the benefit of members of the production collective. Profit is not an end in itself under socialism; rather it is used purposefully as a means of achieving a better production performance in the interests of the whole of society, including the members of the production collective concerned.

Profit on balance forms as the overall result of the production and financial activity of the enterprise. It consists of: (1) profit from the sale of marketable products; (2) profit from the sale of other goods and services provided by the enterprise (transport services, for example); (3) profit from operations other than the sale of products.

Let us assume that the marketable output of an enterprise

is worth 17,500,000 rubles (in wholesale prices), while its cost price was 15,400,000 rubles. The profit from the sale of this output is 17,500,000—15,400,000=2,100,000 rubles. The profit from the sale of other products is 30,000 rubles and that from operations other than sales—20,000 rubles. In this case, the overall profit is 2,100,000+30,000+20,000= 2,150,000 rubles.

Reflecting the unity of interests of society and the individual, profit is accordingly distributed among society, the collective, and its individual members. It reaches society as fixed payments, with the help of which excess profit, which forms as a result of more favourable production and economic conditions, is publicly appropriated. Charges for the use of production facilities are an important factor in this connection. These make for more efficient utilisation of the fixed and the circulating assets. Furthermore, profit is used to pay interest on bank credits.

The planned profit of an enterprise is used to develop economic incentives funds of all kinds (production expansion fund, material incentives, social and cultural activity, and housing construction). It is also used for other economic purposes, such as the financing of centralised investments, bank credit settlement, expansion of circulating assets, recovery of losses entailed by non-productive activity, and payments to the reserve of superior organisations. Table 4 illustrates the distribution of profit under the current economic reform.

A sizable proportion of the profit goes to the state budget as a "free balance of profit" (in 1969, this accounted for 35 per cent of the total profits of enterprises operating under the new system).

Profit on balance does not include the profit received from subsidiary farms, the sale of new types of household chemicals, the production of consumer goods and other articles manufactured from substandard leather, furs and like materials. The latter profit is retained by the producing enterprises in keeping with the relevant decisions of the USSR Council of Ministers and is distributed in a special way.

Let us assume that the profit to be distributed was 2,100,000 rubles. The charges for the use of basic produc-

Table 4

Balance-sheet profit of an enterprise			
Profit distributed in a special way and retained by the producing enterprise	Priority payments made by the enterprise	Economic incentives fund	Other uses of profit
Consumption fund	To meet charges for use of fixed assets and planned circulating assets	Material incentives fund	Repayment of credit towards investment
From the sale of new types of domestic chemicals	Bank credit interest payments	Fund for financing cultural and social measures and housing construction	Centralised capital investment
From production of consumer and producer goods using substandard leather, pelts and furs	Fixed (rent) payments	Expansion fund	Meeting carry-over liabilities on bank credits towards output of new types of products, improving product quality, reliability and durability
			Increment of own circulating assets
			Spending on economic upkeep of cultural establishments and Pioneer summer camps
			Contribution to the financial aid reserve
			Spending on other needs
			Free balance of profit to be paid into the state budget

tion facilities and planned circulating assets amounted to 290,000 rubles, the fixed payments into the state budget—to 260,000 rubles, and bank credit interest settlement—to 10,000 rubles. The profit on balance was thus 2,100,000—290,000—260,000—10,000=1,540,000 rubles. This profit was used to set up funds for economic incentives in line with approved standards and norms. The material incentives fund amounted to 600,000 rubles, the fund for social and cultural measures and housing construction—to 200,000 rubles, and the production expansion fund—to 400,000 rubles.

The remainder, 340,000 rubles, was distributed in the following way: 90,000 rubles for financing centralised investment, 20,000 rubles for settling carry-over liabilities on bank credits used to launch new lines of product, improve product quality and durability; 30,000 rubles for building up circulating assets, 20,000 rubles to maintain cultural and welfare institutions, and 40,000 rubles for payment to the reserve fund of the higher organisation. As a result, the free balance in hand due for payment into the state budget amounted to 340,000—90,000—20,000—30,000—20,000—40,000=140,000 rubles.

In 1969, the profits of industrial enterprises operating under the new system of planning and economic incentives totalled 44,100 million rubles. Of this total, 60 per cent was paid into the state budget, including 19 per cent in the form of charges for the production facilities and circulating assets used. The fixed payments amounted to 5 per cent. The enterprises retained 40 per cent of their total profit. Of this, 15 per cent went towards the funds for economic incentives and other purposes, and 14 per cent towards capital construction.

Along with wages, profit forms the net output of an enterprise, and this output indicates the volume of the newly created value (national income) as recorded at the enterprise. Consequently, net output is an isolated component of the national income. In conditions of economically proper price formation, the net output is a major value indicator of the performance of a production collective.

The direct connection between the net output of enterprises and the national income makes it possible to use this indicator as a criterion for assessing the contribution made

by production collectives to raising the efficiency of social production and adding to society's wealth.

THE CONTRIBUTION OF THE PRODUCTION COLLECTIVE TO INCREASING PUBLIC WEALTH, AND HOW IT IS MEASURED

As we have seen the process of production under socialism identifies the labour process with the process of creating value. This means that individual enterprises manufacture different types of products (machines, fuels, consumer goods, etc.) with different consumer properties, different use values. What is common to all of them is that they are "depositories" of the labour time crystallised in them; that they possess a definite value depending on the quantity and quality of labour expended on their production.

The amount of labour (living and past) that goes into the manufacture of products depends on their structure, material intensity and asset-output ratio. It is obvious that the production cost of goods manufactured by an enterprise over a specified period is directly dependent on many factors, including the strength of the enterprise's work force, their skills and qualifications, the composition and value of the basic productive assets, the quantity and cost of the raw materials, electric power, and production services used. In its turn, the cost of production as recorded at the enterprise is divided into two components: the transferred cost (the cost of depreciation, raw materials, power and services), and the newly created value, or net output (profit and wages for the workers of the enterprise concerned). The volume of net output of the enterprise largely depends on the number of workers with the right qualifications and trades, and also on the composition of the productive assets used.

The capacity of an enterprise to produce use values needed by society, and, consequently, its ability to create value, represents its economic potential. What matters here is not value in general, but the newly created value only, which effectively adds to the national income. As for trans-

ferred value, which indicates the expenditure of the means of production, it does not make society any richer. All other things being equal, a decrease or increase in the net output correspondingly affects the contribution of a given enterprise to the national income.

The less current and crystallised labour time goes to make a product, the greater is the surplus product, and, consequently, the national income. Hence, the extent to which an enterprise uses its economic potential is a major index of its own production efficiency, and that of the national economy generally. This is a sufficiently faithful index of how fully a production collective uses its resources to add to the country's social wealth.

How are we to gauge the extent to which an enterprise uses its economic potential?

Let us examine this as applied to separate elements of the production process.

As a rule, under-utilisation of the fixed assets results either in less output per unit of time and, consequently, per unit of value of the instruments of labour used, or in the necessity of acquiring additional instruments of labour, since it is essential to reach the production target. In either case, under-utilisation of the instruments of labour eventually makes output dearer on account of the increased share of the depreciation allowance in its cost. Dearer output means lower profits for the enterprise, and, as a result, less national income in the aggregate social product. A larger volume of fixed assets means higher charges for their use, and this, coupled with reduced gains, militates against the profitable operation of the given enterprise. The misuse of the instruments of labour entails additional capital investment and its lower efficiency. In relation to society as a whole, all this slows down economic and social progress.

Fuller use of the subjects of labour means a more rapid production process owing to a reduction in the frequency and duration of breaks for switch-over from one type of operation to another.

However rapid the production process may be, a measure of unfinished production is inevitable on account of the need to obtain new primary products and materials and other types of circulating assets, and because of the need to pay

the workers. The cost of unfinished production is limited by the duration of the operation cycle, and by the cost of raw materials and other requisites of production. The cost of unfinished production grows with the lengthening of the production cycle, since, during breaks in between technological operations, the stocks of raw materials and intermediate products pile up. An increase in unfinished production means an increase in the enterprise's circulating assets—an undesirable situation, since the enterprise has to pay for any additional circulating assets it acquires. As a result, the enterprise makes less profit, and bonuses and other funds based on profit shrink accordingly.

The growth of unfinished production entails additional expenditure on the storage of raw and primary materials and intermediate and finished products, and this directly or indirectly increases prime cost. Finally, an enterprise with a relatively large volume of circulating assets has to invest more of its money to keep production going. This reduces its usefulness to society.

The under-utilisation of productive labour power in material production also leads to economic losses. Direct losses of labour time resulting from idle time due to organisational and other causes have to be recovered in one way or another. Payment for idle time obviously increases production costs. Moreover, losses of labour time reduce output.

The misuse of skills also increases production costs. For instance, a worker of the fifth grade doing a job normally done by a worker of the second grade is paid more.

If, say, a worker on piece-rate does not pull his weight and fails to fulfil his output quota, he is not entitled to extra pay; but his poor performance tends to reduce overall labour productivity at his factory. In this case, the enterprise has to employ additional manpower to fulfil its output plan and so it has to increase its wage fund. Moreover, the ratio of constant expenditures to the cost of production grows accordingly.

Very often, the performance of enterprises is judged by the extent to which they use their productive capacity. This method is not without justification, but it has certain essential defects. The productive capacity of an enterprise, upon which this method is based, depends on the enterprise's

available resources and planned product range. If, with the same resources, the range of products is altered, the productive capacity changes with it, and so the method of assessing the performance of enterprises on the basis of their productive capacity alone is somewhat inadequate.

Furthermore, indices of the productive capacity of individual enterprises, especially of those belonging to different industries, are in practice incommensurable, if only because of the different (natural, conventionally natural and value) units of measurement used. The system of price formation, material intensity, labour intensity and asset-output ratio of production also appreciably affect the productive capacity of different enterprises. This, too, makes it difficult, if not impossible to use the productive capacity index as a means of comparison.

The method of assessing the performance of enterprises on the basis of their economic potential and the efficiency of its utilisation is, by comparison, free of the above-mentioned drawbacks.

If economic potential is determined by the amount of the maximum possible profit (P_m) and the maximum possible wage (W_m). then its utilisation coefficient may be expressed as a ratio of the actual net output ($P_a + W_a$) to the maximum possible output. This ratio is expressed as follows:

$$C_{ep} = \frac{P_a + W_a}{P_m + W_m}$$

In this equation, the numerator can easily be found in the factory's records, and the denominator by measuring the organisational level of production. In these calculations, P_m is found on the basis of the overall profitability of an enterprise, the size of its fixed and circulating assets, and the efficiency of their utilisation. The maximum wage is calculated on the basis of the qualitative composition of the optimal work force and the efficiency of its utilisation.

Let us assume that the actual year's profit of a machining workshop of a Moscow factory was 388,800 rubles, the actual annual wage—285,600 rubles. The maximum possible profit, given the optimum utilisation of the available fixed production assets, subjects of labour and manpower, would be

1,032,000 rubles, and the maximum (planned) wage—540,000 rubles.

In this case, the utilisation coefficient of the workshop's economic potential is:

$$C_{ep} = \frac{388.8 + 285.6}{1{,}032 + 540} = 0.427$$

This means that the workshop was only able, for a number of reasons (chiefly organisational), to use less than half of its economic potential. As a result, the wages were half of what they might otherwise have been, and the profit was less than one-third of the maximum possible. In sum, the workshop was able to use only 42.7 per cent of the opportunities provided by society for adding to the national income, and hence to the country's public wealth.

Being based on relative values, the indicator of the utilisation of economic potential makes it possible to assess the efficiency of production collectives more objectively and provides considerable opportunities for comparative analysis.

Since the size of profit and wages, all other things being equal, is dependent on the intensity of the use of the available fixed assets, the time it takes for the subjects of labour to complete the production cycle, and also on how fully the total work force is employed, it is easy to see that the utilisation coefficient of an enterprise's economic potential is directly dependent on production intensity and efficiency. To improve this indicator is to hold the key to the solution of many problems involved in increasing the country's public wealth.

CHAPTER III

HIGHER EFFICIENCY OF SOCIAL PRODUCTION AS AN ESSENTIAL MEANS OF INCREASING SOCIALIST WEALTH

PRODUCTION EFFICIENCY AND ITS INDICATORS

Higher production efficiency is an imperative condition for increasing public wealth and a major prerequisite for the successful implementation of the current programme of communist construction, for the victory of socialism in its historical competition with capitalism. As the CPSU Programme puts it: "The chief emphasis at all levels of planning and economic management must be laid on the most rational and effective use of the material, labour and financial resources and natural wealth and on the elimination of excessive expenditure. The immutable law of economic development is to achieve in the interests of society the highest results at the lowest cost."[1]

The Soviet Union's public wealth, and that of each constituent republic and individual region, depends primarily on the level of industrial development and the efficient operation of the enterprises. That is why, simultaneously with the development and expansion of industrial production, special attention should be devoted to improving efficiency in industry, the backbone of social production.

The steady and rapid growth of the efficiency of industrial production depends on many technical, economic, social and organisational factors operating within industry as a whole and at individual enterprises. Purposeful work on improving the efficiency of industrial production and timely and appropriate measures in this area are impossible without a clear conception of the role and importance of each separate

[1] *The Road to Communism*, p. 532.

measure, of their interconnection and interdependence and, finally, feasibility and economic expediency of the measures proposed. One should always remember that, apart from the reserves at the disposal of industry generally, each individual branch of industry and each enterprise has its own particular reserves, allocated in accordance with the specific requirements of the production concerned.

For the purposes of practical application it is of great importance to have a sound grasp of the theoretical side of material production efficiency as a whole, and of the way its individual aspects and conditions influence the results in terms of indicators. General and specific laws governing the functioning of modern production manifest themselves in a variety of ways. Only those well versed in theory can feel at home in the complex world of economic laws and can single out the chief, decisive factors so as to frame a workable strategy for achieving the best results on a minimum outlay.

The effect of any action or process always manifests itself as a result, which may be output, speed, capacity, productivity, or profit.

When we speak of the effectiveness of such actions or processes, we relate the result to the outlays necessary to achieve it. Production costs and end results can both be measured in different units. Thus, when judging the efficiency of machine design, we relate the capacity and speed of the machines to their fuel and power consumption, and the materials of which they are built. We judge the effectiveness of expenditures by the profit as related to the expenditures made.

Efficiency of material production is the ratio of the benefits obtained (with due account being taken of their quality) to the amount of labour expended. In the context of industrial production, efficiency (E) is expressed as follows:

$$E = \frac{\text{quantity and quality of output or work}}{\text{expenditures of past and living labour on given output or work}}$$

Admittedly, what is taken into account here is not just any kind of output, but only that which meets the require-

ments of society and the consumption of which contributes to the full development of its members.

This is precisely how the founders of Marxism saw the efficiency of communist production. Engels wrote that in a communist society "the useful effects of the various articles of consumption, compared with one another and with the quantities of labour required for their production, will in the end determine the plan".[1]

In the lower phase of communism, however, a direct comparison like this is impossible. Under socialism, the various labour expenditures and different kinds of products have to be correlated indirectly in monetary terms. And so economic efficiency of production is expressed as a ratio in which numerator and denominator are given in monetary units.

The efficiency of industrial production can be raised by: (a) increasing output with quality and costs remaining constant; (b) improving the quality of the product with the volume of output and costs remaining constant; (c) reducing expenditures of living and past labour as materialised in the instruments and subjects of labour, with the same volume and quality of output; (d) simultaneously increasing output, improving quality and reducing costs. In the latter case, efficiency is highest.

Needless to say, the economic efficiency of production can be changed by simply changing the wholesale prices. Indeed, this not infrequently happens when it is necessary to reallocate financial resources among different sectors of production, or when it becomes necessary to stimulate the output of certain types of products. In all these cases, the changes reflect state prices policy. But, irrespective of prices and price formation, there is always a determined drive for higher efficiency. People engaged in material production will always be faced with the task of boosting output, improving quality, and reducing production costs.

This task is particularly urgent at the present stage in the development of Soviet society. That is why, as the Directives of the 24th Congress of the CPSU point out, "cre-

[1] Engels, *Anti-Dühring*, Moscow, 1969, p. 367.

ative work is being done throughout the country aimed at raising the efficiency of production, utilising most fully the achievements of the scientific and technological revolution, stepping up production and improving, on this basis, the economic performance indices in industry, agriculture, construction and the transport system".[1]

At first glance, the problem of raising production efficiency looks simple enough. It would seem that once measures have been taken to save labour and materials, and to boost the capacity of machinery and improve product quality, efficiency of production will grow steadily. Technical and organisational opportunities for achieving this exist in most cases. What is more, production processes are being constantly mechanised and automated, as a result of which output is rising, the quality of the products is improving, part of the work force is being released for alternative employment, and their labour productivity is growing substantially. And yet by no means all such measures prove economically justified. A case in point was the introduction of automatic lines for machining piston rings, which did not justify itself economically, despite the fact that labour productivity increased.

Why was this so? Why, despite their obvious positive results, do some measures eventually prove economically unjustified?

The answer is that output and product quality do not go up of themselves, but require expenditure of labour and funds. The saving of living labour is usually possible through a relative increase in past labour expenditures and, conversely, the improvement of product quality requires additional labour expenditures on extra operations or on improving the quality of the raw materials and primary products. Consequently, the efficiency of material production will grow, provided the results are greater than the outlay necessary to achieve them. From the methodological point of view, the problem of economic efficiency can be reduced in the final analysis to setting the increase in outlays against the results obtained.

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[1] *24th Congress of the CPSU*, p. 322.

Let us assume that an enterprise turns out 1,000,000 rubles' worth of products a year, and its production costs amount to 900,000 rubles. The economic efficiency of production in this case is 1,000÷900=1.1 rubles, i.e., each ruble of expenditure ensures ten kopeks' increment. Following expansion, the enterprise increases its output to 1,500,000 rubles and the costs rise to 1,390,000 rubles. As a result, the economic efficiency of production declines: 1,500÷1,390 =1.08 rubles. Production after expansion is still relatively efficient. But the expansion measures themselves, which were designed to boost output, have proved unjustified economically, since they have resulted in increased expenditures per unit of output.

One must therefore distinguish between the economic efficiency of production as such, and the economic efficiency of the measures taken. The introduction of an automatic line proves economically inefficient if it involves greater expenditures per unit of output. Each ruble spent on the introduction of an automatic line often yields a growth of 15-16 kopeks a year, whereas, for the country as a whole, the economic effect of mechanisation and automation in production is an average of 20-30 kopeks per ruble of investment.

Since production efficiency reflects the results of the multiple activities of production collectives, a series of indices has been evolved to measure it. These interconnected indices, which are used both within industries and at individual enterprises, are as follows:

(a) *the general production efficiency index,* which is a ratio of the value of output or the value of marketed products[1] in one year to the annual production costs of an industry or enterprise;

(b) *the output-asset ratio index* is the relation of the value of output produced or marketed in one year to the cost of the fixed assets of an industry or enterprise. This index shows the economic efficiency of the fixed and circulating assets and their utilisation, in other words, the extent of the

[1] The introduction of the "marketed products" category was necessitated by the new system of planning and economic incentives in industrial production. Its aim is to interest enterprises in putting out the pre-set range of high-quality goods that would sell easily.

employment of past labour as materialised in industrial buildings, installations, equipment, raw materials, primary products, intermediate products, etc.;

(c) *the overall profitability of production index* is a ratio of the profit made by an industry or enterprise to its outlays over a corresponding period of time;

(d) *the profitability of production assets index* is a ratio of the annual profit made by an industry or enterprise to the value of its production assets. This index was introduced following a decision taken at a plenary meeting of the CC of the CPSU in September 1965. It indicates the efficiency of the assets themselves and their utilisation, and also the level of the entire economic activity of enterprises and industries. Together with charges for use of the fixed assets, it is a powerful economic lever for improving production efficiency;

(e) *the investment efficiency coefficient.* Industrial production can be increased either through building new enterprises or by expanding and modernising the existing ones. Living labour is saved and its productivity increased by introducing new plant and equipment, by employing advanced methods and technology, and by streamlining production organisation and management.

All this calls for greater capital investment to achieve the intended result.

There are two kinds of investment efficiency: absolute and relative. Absolute investment efficiency is defined as the ratio of the overall result to the value of the investments made to achieve it. Let us assume, for example, that 3,000,000 rubles have been invested in a factory. The factory produces 3,500,000 rubles' worth of products and makes 500,000 rubles' profit. The coefficient of its absolute efficiency is $\frac{3.5}{3} = 1.16$, i.e., each ruble of investment yields 1.16 rubles' worth of output. The coefficient of absolute profitability of the capital investment will be $\frac{500}{3,000} = 0.166$. Thanks to the profit made capital investments will be recouped in six years:

$$\frac{3,000}{500} = 6 \text{ years.}$$

The absolute efficiency of capital investment in the introduction of new plant and equipment and new technology, etc., is estimated in the same way.

The relative efficiency index is estimated when it is necessary to compare alternative variants of capital investment for one and the same purpose. For instance, a certain quantity of goods can be produced either by building a new enterprise or by expanding the existing ones. The same type of products can be manufactured with different types of machinery which differ from one another in cost, output and efficiency. More often than not, the use of a powerful and highly efficient machine makes it possible to cut production costs, but its manufacture or acquisition requires relatively greater non-recurrent outlays. Expanding an existing enterprise may cost less than the construction of a new one, but the new enterprise gives more scope for the use of the latest equipment and advanced technology, and, on this basis, for improvement in product quality and for the reduction of costs.

Only those capital investments which secure a return of 10 to 30 kopeks and more on every ruble invested are economically justified.

The indices mentioned above express the economic efficiency of production in the most general and graphic terms. In practice, Soviet planners and economists use a wide range of detailed indices which allow for the special features of individual industries and the specific character of the tasks to be undertaken. The physical growth of the national income with a given natural composition has been accepted as a general criterion of economic efficiency. By analogy, the growth of an enterprise's net output may be taken as a criterion of its efficiency.

THE STEADY GROWTH OF LABOUR PRODUCTIVITY AS THE MAIN ROAD TO HIGHER PRODUCTION EFFICIENCY

The 24th Congress of the CPSU, which laid down the guidelines for the development of the Soviet economy in the Ninth Five-Year Plan, emphasised the improvement of production efficiency and the acceleration of productivity

growth as major preconditions for fulfilling the principal objective of the plan.

Opportunities for the simple physical expansion of production are dwindling. More investments are required for the non-productive sphere, which caters for the many different needs of the Soviet people. What is more, in the current five-year period, opportunities for attracting fresh manpower are lessening. As L. I. Brezhnev pointed out at the 24th Congress of the CPSU, "we must rely mainly on enhancing the effectiveness of production".[1]

In this connection, particularly exacting demands are being made on industry. As the Directives of the 24th Congress of the CPSU state, "the growth of production in every industry shall be ensured above all by raising its effectiveness and using internal economic reserves more fully".[2]

To this end, it is proposed to introduce a series of measures to improve the structure of production and inter-industry and intra-industry proportions, to expand the specialisation and co-operation of production, to raise technical standards, to reduce outlays and improve the quality of all types of products, to use the available production facilities and fixed assets more effectively, and to improve the use of materials, fuels, and electrical and thermal energy.

The growth of labour productivity is of paramount importance in this complex of measures for raising the efficiency of production. The Directives of the 24th Congress of the CPSU provide for a rise of 36-40 per cent in industrial labour productivity during the current five-year plan, through which 87-90 per cent of the total growth of production is to be achieved. Growth rates of labour productivity will be highest in such leading branches as the chemical industry—70 per cent, petrochemistry—50 per cent, mechanical engineering—50 to 80 per cent, and electrical power engineering—40 per cent.

The 24th CPSU Congress considered it necessary to heighten the interest of enterprises and production associations in increasing output, particularly that of new and tech-

[1] *24th Congress of the CPSU*, p. 67.
[2] Ibid., p. 255.

nically advanced types of products, and in stepping up labour productivity to ensure that existing enterprises increase their output without increasing the work force.

The growth of labour productivity is thus the main road to boosting production efficiency. This is understandable, since labour is the creative source of social wealth.

The productive power of specific labour is determined by its ability to create new use values of the required quality, and by "skill" in saving living and past labour in the process. That is why labour productivity depends not only on the extent to which living labour is used, but also on the means of production which it activates. Indices of labour productivity show the effectiveness of purposeful productive activity over a specified period of time with full account being taken both of the use values produced and of the amount of past labour saved and used in the process.

Within the production process itself, both aspects of labour are closely interrelated: in its specific form, labour creates definite use values and transfers to the resultant products the cost of the means of production employed; in its abstract form, it materialises the new quantities of human labour power expended.

Marx stressed that whatever the social conditions of production might be, a reduction of the total quantity of labour going into a commodity is the essential criterion of increased labour productivity.[1]

"The increase in labour productivity," he notes in his *Capital*, "consists precisely in that the share of living labour is reduced while that of past labour is increased, but in such a way that the total quantity of labour incorporated in that commodity declines."[2] In a machine-made commodity, as Marx observed, the absolute share of past labour per unit of production should also diminish.

The founders of Marxism held the growth of the productive power of social labour to be a universal economic law whereby "production costs constantly decrease and the productivity of living labour continues to increase, and, consequently, the labour-time materialised in commodities con-

[1] Marx, *Capital*, Vol. III, p. 261.
[2] Ibid., pp. 260-61.

stantly depreciates",[1] i.e., diminishes. Consequently, declining costs of production and a diminishing share of labour time, as materialised in commodities, are both the result and expression of the growing social productivity of labour. A society is only able to increase its wealth if this is the case.

Marx stressed: "Productivity of labour in general= a maximum of product with a minimum of labour, hence the possibility of cutting the prices of commodities."[2]

Productivity of labour is a concentrated expression of the extent to which the instruments of labour, the subjects of labour, and the most important productive force—the work capacity of the workers themselves—are being used, as well as an expression of the level of their development. This is a synthetic expression of progress in technology, methods of organisation, and the economics of production. In this sense, labour productivity is a criterion by which the efficiency of social production can be gauged.

In the Soviet Union, labour productivity is usually estimated either from expenditures of living labour or from the output per unit of labour time. This method of estimation reflects only one function of specific labour—its capacity for creating use values. In a sense, this is an index of individual productivity. By virtue of its economic content, it is of great importance in estimating requirements for labour reserves, in determining manpower needs, the wage fund, and certain other requirements.

Analysing the production process, the founders of Marxism-Leninism have shown that as machine production and the social division of labour develop, the labour process takes on an increasingly social character. In the course of material production, past labour, as materialised in the means of production, is used more and more. Because of this, the capacity of specific labour not only to produce the

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[1] Marx, *Ökonomische Manuskripte 1857-1858. Das Kapitel vom Geld.* In: *Marx/Engels Archives*, Vol. IV, Moscow, 1935, p. 42.

[2] Marx, *Erstes Buch. Der Produktionsprozess des Kapitals. Sechstes Kapitel. Resultate des unmittelbaren Produktionsprozesses. (Kapitalistische Produktion als Produktion von Mehrwert.)* In: *Marx/Engels Archives*, Vol. II (VII), Moscow, 1933, p. 124.

needed use values with progressively lower labour expenditures, but also to transfer an ever diminishing quantity of past labour to a unit of production, assumes special importance. In fact, as Marx and Engels demonstrated, labour productivity grows when not only living, but crystallised labour is also economised. These are the conditions for the growth of social wealth.

In 1969, the Soviet Union's gross national product was estimated at 587,000 million rubles, of which the share of past labour (the replacement fund) accounted for 325,300 million rubles, so that the national income was 261,700 million rubles. But if workers had not economised in past labour as they did, and if expenditures of this labour had amounted to 370,000 million, instead of 325,300 million rubles, then the national income would, in consequence, have been only 217,000 million rubles. Conversely, one per cent of additional material expenditures saved would have increased the national income by a further 3,200 million rubles.

The division of social production into interconnected branches of industry and enterprises creates a situation where labour productivity depends not only on the final operations, but on all the preceding stages of the production process. Labour productivity thus becomes the social productivity of labour, which shows how much it has cost society to produce a given product, and which is determined by the expenditures of the collective (i.e., total living and materialised) labour.

The social productivity of labour indicates the efficiency of labour expended on a product at all stages and in all sectors of social production.

Depending on the material production sector in which labour productivity is being estimated, social productivity of labour comes in the following forms: specific labour productivity, characterising the performance of a particular enterprise and its departments; local labour productivity, characterising a branch or industrial region; overall or national labour productivity, which reflects the expenditures and the effect on a country-wide scale; and, finally, international labour productivity characterising the world production situation as a whole.

Social productivity of labour may be expressed as a ratio of labour time to production results. It shows the overall expenditure of labour on the production of use values in a given society, or in individual sectors of social production, irrespective of the exchange relations between them.

Social productivity of labour and value are indissolubly linked as cause and effect.

Marx wrote: "In general, the greater the productiveness of labour, the less is the labour-time required for the production of an article, the less is the amount of labour crystallised in that article, and the less is its value; and *vice versa*, the less the productiveness of labour, the greater is the labour-time required for the production of an article, and the greater is its value. The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labour incorporated in it."[1]

Overall expenditures of labour may be judged by the prime cost, and savings of congealed and current labour time by profit and its distribution. However, it should be borne in mind that prime cost, and profit even more so, are not directly dependent on the social productivity of labour. This connection is indirectly expressed by money as the irrational measure of labour time. Furthermore, it is distorted by the influence of non-productive expenditures (fines and other economic sanctions, arbitrary price changes, etc.). Finally, prime cost provides no clue to the true relationship between expenditures of living and past labour, or to the total saving of labour time, since it represents only part of the social production costs.

Labour productivity, then, indicates the effectiveness of production activity. It comes in two forms: individual and social. The former is limited to characterising the efficiency of living labour in the production of specific use values; the latter shows the total labour expenditure the production of these values required.

The estimation, analysis and growth of social labour productivity assume special importance under socialism, since the victory of the socialist revolution in 1917 was accom-

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[1] Marx, *Capital*, Vol. I, p. 40.

panied by a radical change in the relationship between past (accumulated) and living (active) labour. Today, the means of production representing accumulated labour do not stand in opposition to the workers as capital. The working population uses them for their own purposes, and the scale of past labour functioning in production grows enormously with every passing year.

It is important to save and make more rational use of past labour as embodied in plant and equipment, materials, fuels, electric power, etc. In the Soviet Union, it takes an average of 34 man-hours of social labour to produce a ton of steel. The consumption of living labour in open-hearth furnace process proper comes to only 4 man-hours. The remaining thirty man-hours are embodied in the primary materials, fuel, electric power, etc. In some industries, expenditures of past labour amount to over 80-90 per cent of the overall labour intensity of production.

Whereas in 1950 one per cent of past labour saved in the whole of the Soviet economy resulted in a 700-million rubles saving, in 1970 the figure was nearly 3,500 million rubles.

The saving of past labour is a matter of growing importance, since its share in total production costs grows from year to year.

Social productivity of labour is assuming ever greater importance as labour becomes more socialised. At the higher stage of communism, the estimation of the social productivity of labour in terms of labour time will be as common as is the estimation of prime cost today.

Engels wrote: "The useful effects of the various articles of consumption, compared with one another and with the quantities of labour required for their production, will in the end determine the plan..., the above-mentioned balancing of useful effects and expenditure of labour on making decisions concerning production was all that would be left, in a communist society, of the politico-economic concept of value."[1]

While communism is still in the socialist stage of its development, commodity categories remain and value is of

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[1] Engels, *Anti-Dühring*, pp. 367-68.

great importance. However, the use of commodity-money categories in accordance with their new content under socialism does not dispense with the need for the careful estimation not only of individual, but also of social labour productivity. Indeed, the measurement of the full labour expenditures involved makes it possible to use value categories with greater economic justification.

In practice, to estimate the labour productivity of an individual production worker, economists use, as a rule, the natural method, which is summed up in the formula:

$$P = \frac{O}{T_e}$$

where P is the productivity of an individual worker;

O is the output in kind;

T_e is the labour time spent on the manufacture of the products.

Since the natural indices of output of different types of products are incommensurable, the chief yardstick of labour productivity is the gross output (in wholesale prices) of an enterprise per member of the production personnel.[1]

The gross output of an enterprise is the total volume of its production minus the internal turnover[2] of the enterprise. If, for instance, the total volume of output is valued at two million rubles and the enterprise uses 500,000 rubles' worth of its output for production purposes, its gross output is 1.5 million rubles.

In connection with the economic reform the annual marketed output index (estimated in wholesale prices for July 1, 1967) per production worker is now widely used in the Soviet Union. Apart from this index, Soviet economists use, in appropriate cases—for instance, when the calendar amount of the labour time available changes—the index of hourly labour productivity. This latter gives a more accurate

[1] "Production personnel" includes workers, engineers and technicians, clerical staff, junior service personnel, and learners.

[2] "Internal turnover" means the use of the enterprise's own products for production needs.

picture of labour productivity growth. The following may give an idea of the difference between annual and hourly labour productivity. By 1972 compared to 1913 annual labour productivity in Soviet industry had increased 20.9 times, while hourly productivity, by over 30 times; in agriculture the respective increases were 5.4 times and over 6 times; in rail transport—11.9 and 17 times.

THE IMPORTANCE OF HIGHER LABOUR PRODUCTIVITY FOR THE VICTORY OF COMMUNISM

From the very first days after the victory of the Great October Socialist Revolution, Lenin urged the Party and the working people of Russia to turn their attention to the paramount task of raising labour productivity.

Surveys of labour productivity began in 1918. The resultant data were later published in the journal, *Labour Statistics*, the organ of the People's Commissariat of Labour of the Russian Federation. Soon afterwards, on January 4, 1919, Lenin confirmed by decree "The Statute on the Current Industrial National Statistics". This marked the beginning of the practice of collecting statistics on and analysing labour productivity in this country.

In subsequent years, Lenin devoted much attention to the problem of raising labour productivity. He constantly advised the achievement "of practical results in the sense of raising labour productivity, economising human labour and safeguarding output".[1]

Lenin stressed that "communism begins when the *rank-and-file workers* display an enthusiastic concern that is undaunted by arduous toil to increase the productivity of labour, husband *every pood of grain, coal, iron* and other products, which do not accrue to the workers personally or to their 'close' kith and kin, but to their 'distant' kith and kin, i.e., to society as a whole".[2]

Pointing out that communism should be based on a solid economic foundation, Lenin regarded the growth of labour productivity as the decisive factor in its eventual victory.

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[1] V. I. Lenin, *Collected Works*, Vol. 27, p. 204.
[2] Ibid., Vol. 29, p. 427.

He wrote: "One of the basic tasks is to raise the level of labour productivity, for without this the full transition to communism is impossible."[1]

Lenin devoted great attention to labour productivity in his early works on the development of capitalism in Russia. Even at that time, he showed the growth of labour productivity to be the decisive criterion of economic progress. Later, on the basis of the comprehensive analysis of a vast body of factual material, he arrived at the significant conclusion that, "in the last analysis, productivity of labour is the most important, the principal thing for the victory of the new social system. Capitalism created a productivity of labour unknown under serfdom. Capitalism can be utterly vanquished, and will be utterly vanquished by socialism creating a new and much higher productivity of labour".[2]

Lenin, in both his theoretical propositions and in the practical work of solving this task, proceeded from the law of time economy discovered by Marx.

Since at the lower stage of communism, that is, under socialism, the aim is the full development of all members of society, the law of time economy becomes vitally important for building a communist future. Time economy makes it possible, given the same resources, to increase wealth and provide more free time.

Free time forms on the basis of material production and is dependent on the level of its development. At the same time it has a feedback effect on material production. People who have enough free time for all-round development are better placed to step up the production process and improve product quality.

The multiple growth of labour productivity in the years of Soviet power is not only the cause but also the consequence of the increase in free time and concern for the mental and physical development of Soviet people. Free time is becoming more important for raising the efficiency of social production and for promoting the growth of labour productivity. To fulfil the tasks set by the Communist Party,

[1] Ibid., p. 113.
[2] Ibid., p. 427.

it is essential to enable the population to use free time more fruitfully.

In the sphere of material production, the law of time economy is inseparably tied up with the law of rising labour productivity, which operates under all socio-economic systems. The progress of any such system is governed by these laws. Each successive system provides greater scope for the operation of these laws.

As a result, a new socio-economic system beats its predecessor by higher labour productivity. At the same time, the character and scope of operation of the law of rising labour productivity hinge on the level of the development of productive forces and on the dominant relations of production.

In capitalist countries, where private ownership of the means of production reigns supreme, the importance of this law, to quote Marx, is not unconditional. "So far as capital is concerned, productiveness does not increase through a saving in living labour in general, but only through a saving in the *paid* portion of living labour, as compared to labour expended in the past."[1]

Under capitalism, labour productivity develops by fits and starts, and the law of rising labour productivity is continually violated. Production expands or shrinks depending on the rate of unpaid labour appropriated by the bourgeois owner of the enterprise and on the profit margin. Furthermore, the fundamental contradiction of capitalism (that between the social character of the production process and private capitalist appropriation) engenders a contradiction between the efficient organisation of production at the individual enterprise and the anarchy of social production generally. This leads to economic crises and political conflicts which inevitably have an adverse effect on labour productivity.

The growth of labour productivity under capitalism has always led to greater exploitation of the working masses and an increase in the rate of surplus value. In advanced capitalist countries, this rate is currently running at 300-400 per cent and more.

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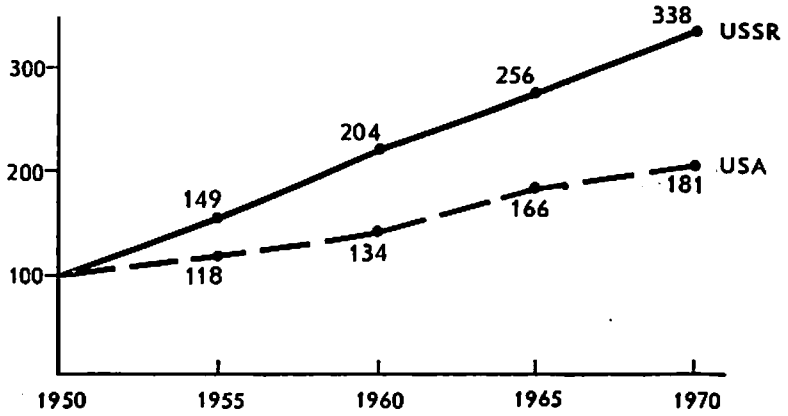
[1] Marx, *Capital*, Vol. III, p. 262.

Labour Efficiency Growth Rates in Industry (per cent of 1950)



Socialist revolution removes the conflict between productive forces and relations of production. Under socialism, public ownership of the means of production corresponds to the socially employed productive forces and this, as we have seen, puts an entirely different complexion on the labour process.

Consequently, even at the lower stage of communism, industrial workers, collective farmers, all the working people are vitally interested in growing labour productivity, for upon it depend their living standards and the might of their country. Under socialism, the objective law of rising labour productivity which operates under all socio-economic systems turns into a law of *steadily* rising productivity. It means that under socialism labour productivity increases with every passing year. Achievement of high growth rates of labour productivity becomes a matter of vital importance in view of the rapidly growing requirements of a socialist society, the economic competition with capitalism, the need to strengthen the defences of the socialist camp and to help countries following the non-capitalist path of development. Socialism provides all the necessary conditions for achieving high growth rates. These include public ownership of the means of production, the abolition of exploitation of man

by man, a planned system of economic development, continued technical progress, and the interest of working people in a better production performance.

Since the October Revolution in 1917 hourly labour productivity in Soviet industry has grown 26 times as compared to the 1913 level, while the corresponding increase in rail transport was 15 times, and that in agriculture—6 times.

In 1969, compared to 1928, when full-scale socialist construction commenced in the Soviet Union, the annual output in industry was 14.4 times greater, in construction—10.5 times, and in rail transport—9.7 times.

Labour productivity grew just as rapidly in the Union republics. Particularly high growth rates were registered in the years of the First Five-Year Plan (1929-32) and even more so in the Second (1933-37), when it advanced by 8.9 and 11.8 per cent per year respectively. In the post-war period, labour productivity grew rapidly between 1951 and 1955, and between 1956 and 1960. Subsequently, the growth of labour productivity slowed down due to the reasons which were disclosed at the September 1965 and December 1969 plenary meetings of the Central Committee of the CPSU. Owing to measures adopted at these meetings and at the 24th Congress of the CPSU, higher growth rates of labour productivity have been achieved.

On the whole, annual growth rates of labour productivity in Soviet industry have been, and continue to be, higher than those in any of the industrialised capitalist countries. In the period 1917-67, labour productivity in the Soviet Union grew by 5.3 per cent annually, while the corresponding growth in the USA was 2.6, in Britain—1.3 and in France—2 per cent.

In 1969, compared to 1950, output per worker in Soviet industry was 316 per cent, in the USA—179, in Britain—170, in France—262 and in the FRG—245 per cent.

Industrial labour productivity in pre-revolutionary Russia (small-scale and handicraft industries included) was approximately 9 times lower than in the USA, about 5 times lower than in Britain, less than 5 times lower than in Germany, and more than 3 times lower than in France. The situation was even worse in the early years of Soviet power.

However, thanks to the rapid growth rates of labour productivity, the USSR has outstripped all European capitalist countries, and has narrowed the gap with the United States by 4.5 times.

The spectacular growth rates of labour productivity since the revolution have enabled the Soviet Union sharply to increase both its industrial output and national income.

In 1970, compared to the 1913 level, Soviet industrial output was 91 times greater.

The Soviet Union has long been ahead of all European countries in terms of industrial output, and second only to the United States. Whereas in 1913 the industrial output of the Russian empire was barely 12.5 per cent of the corresponding US level, in 1971 Soviet industrial output was 75 per cent of that in the USA.

In 1971, the Soviet Union accounted for nearly one-fifth of the world industrial output. By comparison, the share of pre-revolutionary Russia in 1913 was slightly over 4 per cent.

The steady growth of labour productivity has enabled the Soviet Union to recover in a remarkably short time from the damage inflicted by the war.

The experience of the Kalinin region is a typical example. The nazi occupation during the war played havoc with its economy. The direct material losses alone were estimated at 26,700 million rubles.

The advantages of the socialist system, coupled with the fraternal assistance from the working people in other regions of the Soviet Union, helped the Kalinin region speedily to build up its social wealth to pre-war level again and recover its economic potential. At the commencement of the Eighth Five-Year Plan, the region's industry was already producing almost six times as much as in 1940, and 35 times more than before the revolution. Metalworking and mechanical engineering are now at an advanced stage of development. In addition, large-scale chemical and printing industries have been built up, and the light industries, traditional for the region, are making progress.

Growing labour productivity has been, and still is, a crucial factor for the continued build-up of industry in the Soviet Union.

Had the Soviet iron and steel industry developed at the rate of its US counterpart, then in 1967 it would have smelted only 17 million tons of steel. In fact, the Soviet Union produced 6 times as much that year, and in 1970 steel output reached 116 million tons.

In the Soviet Union today, a one per cent growth of labour productivity brings 4,100 million rubles' worth of additional industrial output, which is more than Russia's entire industrial output for 1917. A one per cent rise in labour productivity brings substantial, though not identical, results in various branches of industry: it ensures, for instance, the output of nearly 7,500 million kilowatt-hours of electricity, 1.2 million tons of steel, over 9,200 automobiles, 4,600 tractors, and 6.8 million pairs of boots and shoes.

The economies resulting from the growth of labour productivity inevitably lead to an increase in the country's national income, the expansion of socialist reproduction, and the creation of material benefits in abundance.

The higher growth rates of labour productivity enable the Soviet Union to increase its gross social product and national income more rapidly than the USA.

Between 1951 and 1969, labour productivity in Soviet industry grew by 6.2 per cent annually on average, while in the USA the corresponding figure was 3.1 per cent. National income in the two countries grew by 8.7 and 3.7 per cent per year respectively.

Whereas in 1950 the Soviet Union's national income was 31 per cent of that of the United States, in 1969 it came to 65 per cent of the US level.

The Soviet Union is considerably ahead of the United States in growth rates for the output of several types of consumer goods. Between 1951 and 1969, the average annual increase in the Soviet footwear industry was 22.8 million pairs, while in the United States it was only 3.1 million pairs. Granulated sugar output (from home raw materials) grew by 355,000 and 105,000 tons respectively.

The output of certain goods in the USA has been on the downgrade, while in this country it has been rising. For instance, the annual increase in the output of cotton fabrics in the USSR has averaged 182 million square metres, while output in the USA has declined by 122 million square metres.

The corresponding indices for woollen fabrics and animal fats are: +22.3 and —14.6 million metres, and +30,800 and —12,200 tons respectively.

The above examples go to show that a steady growth of labour productivity is decisive for the development of the socialist economy and for the ultimate victory of socialism in its competition with capitalism.

Almost three-fourths of the total increase in Soviet industrial output between 1917 and 1967 can be attributed entirely to the growth of labour productivity. If labour productivity had remained static throughout that period, an additional 250 million people would have been required to achieve the same result. In the eighth five-year period, the growth of labour productivity played an even greater role in boosting industrial output. In 1970, 84 per cent of the increase in industrial production was achieved through higher labour productivity.

Soviet agriculture has trebled its output in the years of Soviet government thanks to steadily rising labour productivity, although the proportion of the population employed in agriculture has diminished from the original 75 per cent to 30 per cent.

The growth of labour productivity not only makes it possible to increase output, but also helps keep costs down, since progressively less socially necessary labour time is needed to produce the same quantity of goods. Labour productivity growth is thus a decisive condition for improving production efficiency, which in turn means that more goods are produced per unit of capital outlay.

In other words, raising labour productivity allows to use the country's productive forces more efficiently and steadily increase the material benefits, but with less outlays on production. This makes it possible to cut working hours, improve the standard of living, and fully meet the growing needs of the Soviet people.

The growth of labour productivity is of exceptional importance for strengthening the Soviet Union's military-economic potential and for maintainig world peace.

Long before the First World War, which was unleashed by the imperialists, the founders of Marxism established a growing dependence of warfare on the economy. Engels

wrote: "Nothing is more dependent on economic prerequisites than precisely army and navy. Armament, composition, organisation, tactics and strategy depend above all on the stage reached at the time in production and on communications."[1]

The connection between war and the economy drew Lenin's attention on more than one occasion. He stressed that war is a continuation of politics by different means. But politics are themselves a concentrated expression of economics and it is easy to see that military conflicts are rooted in economic soil. Success or failure in war is largely determined by the state of the economy, by its level of development, its flexibility and its viability.

The law of interconnection between war and the economy applies with particular force under present-day conditions.

The technological revolution in military matters facilitates swift advances in methods of warfare, so that the obsolescence of military equipment and the need to maintain a high degree of preparedness for war have become problems of great urgency. The technological revolution demands an entirely new approach to military and economic preparedness, and greatly increases the possibilities for the mutual destruction by belligerent countries of each other's economic potential.

In this situation, the time factor and economic foundation for the full military preparedness of a country even in peacetime are of exceptional importance.

The main burden of this work is carried by the iron and steel, mechanical engineering, instrument-manufacturing, power, fuel, chemical and radioelectronics industries.

Despite the great success socialism has scored in economic competition with capitalism, the need to maintain high growth rates of labour productivity is still as urgent as ever for the Soviet Union, since this competition, far from being over, is only just entering the decisive stage. Moreover, the problem of speeding up labour productivity is becoming even more important since, for a number of reasons, it is becoming increasingly difficult to keep the national economy supplied with manpower. In 1970 some areas and branches of industry

[1] Engels, *Anti-Dühring*, p. 200.

in the Soviet Union were already experiencing a shortage of labour. The need to increase the volume of production is dictated not only by the economic competition with capitalism and by defence needs, but also by the country's internal needs—the necessity for building up the material and technical base of communism and for raising the Soviet people's standard of living. Today, just as in the early years of Soviet power, increasing labour productivity is still the main condition for the ultimate victory of communism.

THE STEADY IMPROVEMENT IN THE STANDARD OF LIVING

The standard of living, as an index of the people's welfare, is a complex notion embracing the full range of the conditions in which the people live their lives. These include the incomes of the population, which are composed of actual wages and of benefits made available from the social consumption funds. An important index of the standard of living is the extent to which the population is provided with housing, consumer goods, and cultural, domestic, medical and recreational facilities. The length of the working hours and the amount of free time are vital and increasingly important factors in the system of indices used to characterise the well-being of the people.

The various indicators of the standard of living, for all their differences, are determined in the final analysis by the existing social system, by the predominant relations of production and the level of labour productivity.

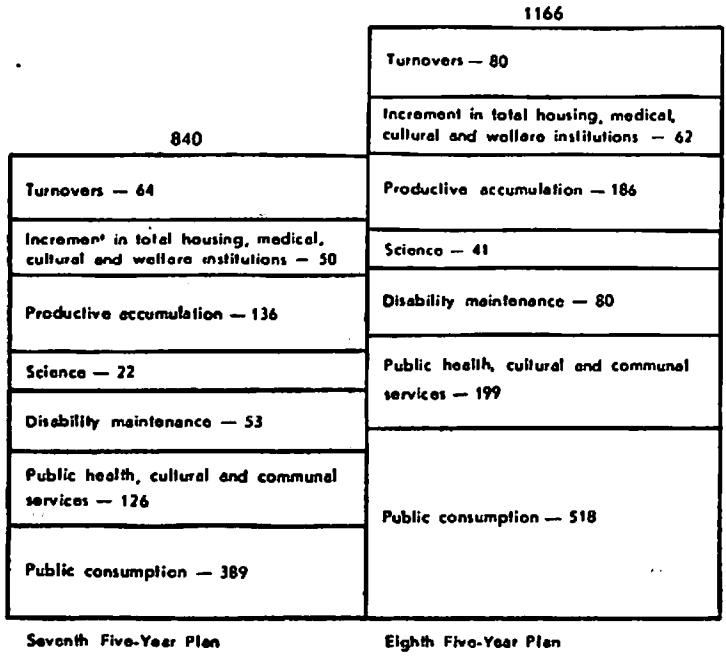
The victory of the Great October Socialist Revolution, which resulted in the establishment of relations of production based on public ownership of the means of production, made the country's entire material and cultural wealth the property of the working people.

The planned organisation of production "with the object of ensuring *full* well-being and free, *all-round* development for *all* the members of society"[1] is, for socialism, a law.

In these conditions, the growth of labour productivity in social production and the increase of the national wealth are

[1] V. I. Lenin, *Collected Works*, Vol. 6, p. 54.

Distribution of the USSR National Income
(thous. mil. rubles)



direct preconditions for an improvement in living standards and in the welfare of the people.

Take wages, for example. Under capitalism, wages are a transformed expression of the value and price of labour power. As a rule, wages are lower than the value of labour power, since capitalists always try to keep them down. The bourgeoisie uses the growth of labour productivity only as a means of increasing the exploitation of the working people, since this growth always increases the rate of surplus value. That is why politically conscious workers in capitalist countries quite rightly see higher labour productivity as something that runs counter to the interests of the workers. Workers in capitalist countries succeed at times in defending their vital interests through uncompromising class struggle.

Under socialism, when the means of production and the entire social product belong to the workers themselves, wages have an entirely different content. In socialist society, where the law of distribution according to labour applies, wages are a manifestation of this law. They represent that part of the national income which the people's state sets aside for the consumption needs of the working people. Wages are distributed among them according to the amount and quality of work done by each one to produce the aggregate social product.[1]

Under socialism, the level and dynamics of wages are determined by the contribution each worker makes to social production, and also by the size of the national income. The important thing here is not only the physical volume of the national income, but also its composition. After all, wages are but a monetary expression of that part of the aggregate social product which goes to meet the individual consumption of the workers. Hence the importance of not only increasing the size of the national income, but of maintaining the proper balance between capital goods and consumer goods.

In 1970, as compared with 1913, the output of consumer goods in Soviet industry increased 30 times over, while it was twenty times as great per head of population. At the same time, the real per capita incomes of those working in industry and construction had grown eight times while those of farmers had increased twelve times.

Since the real incomes of the population at a given level of prices are determined by their cash incomes, the dependence of real incomes on the level of labour productivity may be judged from the following example. If labour productivity in Soviet industry had remained at the 1913 level, then with the present numerical strength of employees in this branch of the economy its gross product in 1970 would have been not 412,600 million rubles, but 18.5 times less, i.e., 22,200 million rubles. Assuming the ratio of newly created value

[1] In individual sections of social production, there may be cases of deviation from the law of distribution according to labour. However, these cases do not negate the law itself, but merely testify to the necessity for a better understanding of its implications and for bringing distribution into fuller accord with this law.

and transferred value of the means of production as being 1 to 1 (within the gross product), the national income would have totalled 11,100 million rubles. Even if the entire income could have been reallocated to the needs of the workers (which is inadmissible under the law of extended reproduction), then in this case each worker would have received less than 356 rubles per year.

In actual fact, the average wages of workers in industry for 1970, together with payments and benefits from the social consumption funds, totalled 2,145 rubles. This shows to what extent the workers gained by the growth in labour productivity.

The incomes of the population increased at a high rate during the eighth five-year period. The targets set by the 23rd Congress of the CPSU for the growth of average wages were fulfilled ahead of time in four years. Between 1966 and 1970, average wages rose by 26 per cent instead of the planned twenty per cent.

This can be explained by the fact that large-scale social measures were carried out during the Eighth Five-Year Plan: the raising of minimum wages to sixty rubles a month, and the increase in the scales according to qualifications and the basic minimum rates for the lower paid workers of a number of categories. In 1969, the wages of workers in the construction and building materials industry in the medium pay bracket were increased substantially. The rates of pay for building workers were put up by an average of 25 per cent. After review of the old quotas, their average wages should go up by another 12 per cent on the introduction of a new system of pay. Every year, the Soviet state allocates about 1,500 million rubles of budgetary funds for these purposes. Building workers are now receiving the same rates of pay as workers in the key industries.

Considerable funds have been allocated to provide more favourable conditions for those working in the Far North and in similar areas. Special scales have been introduced to increase the wages of factory and office workers in the Soviet Far East, Eastern Siberia and the North European territories of the Soviet Union.

At the same time, income tax has been reduced for certain categories of workers.

The pension and social security schemes have been improved. In 1970, a total of 64,000 million rubles' worth of pensions, allowances and benefits were provided out of the social consumption funds, as against 41,900 million rubles for 1965. In per capita terms, the value of these benefits and allowances increased from 182 to 262 rubles.

In the national economy as a whole, real per capita incomes of the population during this five-year period went up by 33 per cent instead of 30 per cent as planned.

Labour productivity has a direct bearing not only on the cash incomes of the population. It is an important precondition for cutting production costs and consequently for slashing commodity prices. That is why, under socialism, working people are vitally interested in the growth of labour productivity not only as owners of the means of production but also as consumers.

It is a law that labour productivity should grow faster than cash incomes. Soviet people realise that this law must be strictly observed in practice, because the national income which results from the growth of labour productivity is spent not only on individual consumption, but also on the expansion of the social consumption funds, which play an ever increasing part in raising the standard of living. Moreover, a considerable proportion of the national income (about 25 per cent) goes towards accumulation, which is an imperative condition of extended socialist reproduction.

It should also be remembered that the national income is used to finance the non-productive sphere of the economy. It is also used to strengthen the country's defence potential, to help other peoples fighting against capitalism.

As a rule, labour productivity in Soviet industry grows faster than wages. However, in some sectors of social production this principle is not always observed. On no account should this be considered acceptable, since it is fraught with imbalances between the cash incomes of the population and the provision of commodities. Such imbalances may send prices up, especially on an unorganised market.

An increase in the amount of deposits in savings banks is a major index of the growth of the population's cash incomes. In 1940, such deposits totalled 725 million rubles, while in 1970 the figure rose to 46,000 million rubles.

A comparison of the total of deposits in savings banks with the value of the commodity stocks in the retail trade network throughout the country shows that at the end of 1940 the latter exceeded the former by 911 million rubles. In 1968, the savings were greater than the value of the commodity stocks by 3,287 million rubles. In 1969, the gap widened to 6,800 million rubles. This is evidence of the growing purchasing power of the Soviet people, and of the great capacity of the Soviet market.

Measures taken in recent years by the Communist Party and now being carried out in accordance with the Directives of the 24th Congress of the CPSU for the Five-Year Economic Development Plan of the USSR for 1971-1975 are substantially improving the balance of the Soviet Union's economy. Meanwhile, the population's incomes continue to rise.

The growth of public wealth and labour productivity has made it possible substantially to expand the retail trade network, a major factor in improving the standard of living, since over 80 per cent of material benefits (as assessed in monetary terms) reach the consumer through retail trade. The further expansion of the trade network calls for additional resources, that is, for heavy capital and current in-

Table 5

Consumption of Basic Foodstuffs by Members of Worker Families of the Glukhov Cotton Mill Before the Revolution of 1917 and Today (per cent)

Foodstuffs	1909	1958	1966
Bakery products, flour, groats and noodles (in terms of flour)	100	94	92
Meat, meat products and fats (in terms of meat)	100	360	480
Fish, fish products, including canned fish (in terms of fresh fish)	100	6.9 times more	9.6 times more
Milk and dairy products, butter (in terms of milk)	100	473	5.8 times more
Eggs	100	11 times more	30 times more

vestment. The number of state and co-operative-owned retail enterprises in the Soviet Union increased from 407,200 in 1940 to 682,000 in 1970. The number of public catering establishments grew in the same period from 87,600 to 237,300. The volume of state and co-operative trade increased from 17,500 million rubles to 155,200 million.

The pattern of the population's consumption of food products has changed significantly. This can be confirmed by comparing the consumption of basic foods before the revolution and at the present time by the families of workers at the Glukhov Cotton Mill (see Table 5).

There have been significant changes in the consumption pattern of foodstuffs in the post-war years. Today, a member of the average worker's family eats 2.2 times more meat and meat products, 2.3 times more milk and dairy products, 3 times as many eggs, 2 times more vegetables and 6 times more fruit than in 1940. The consumption of bread, flour and bakery products, on the other hand, has decreased by almost 40 per cent.

During the Eighth Five-Year Plan (1966-70), the range of goods available widened substantially and their quality improved.

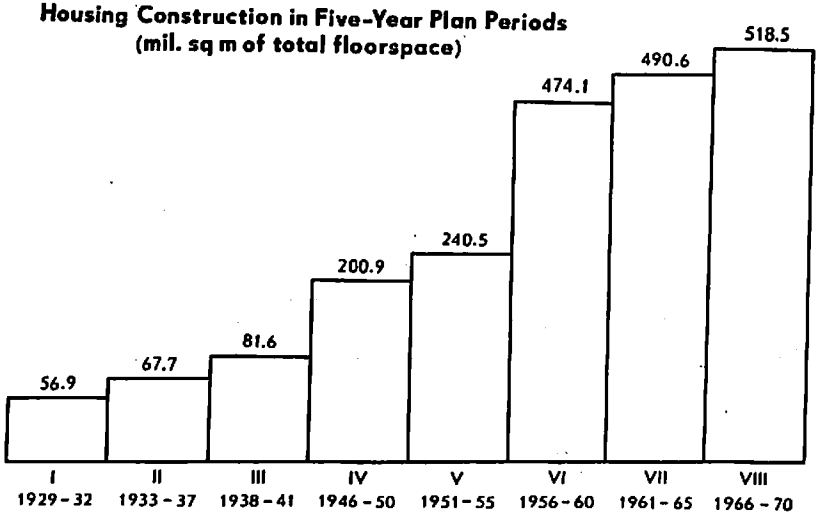
The targets set by the 23rd Congress of the CPSU for the growth of commodity turnover were overfulfilled, its volume increasing by almost 50 per cent. There was an increase in the sales of clothing, footwear, consumer durables, such as TV sets, refrigerators and furniture, and of luxury food products.

As a result, per capita consumption of meat and meat products rose by 17 per cent, of milk and dairy products—by 22, of eggs—by 23, of fish and fish products—by 33, of sugar—by 14, of vegetables and melons—by 31, of fruit—by 18, of fabrics—by 12, of knitwear—by 31, and of leather footwear—by 29 per cent. The demand for the basic household and recreational goods is being met almost fully.

In 1960, every 1,000 people owned 129 radios and radiograms; in 1969, the number rose to 193. For TV sets, washing machines and refrigerators, the corresponding figures were: 22 and 127; 13 and 123; 10 and 71 respectively. Great attention is being paid to increasing the output of building materials. Shopping facilities have been improved.

The growth of the country's public wealth due to higher labour productivity has enabled the Communist Party and the Government to give closer attention to the housing problem. Between 1918 and 1970 (including the seventh and eighth five-year periods) Soviet builders commissioned 2,435.9 million square metres of living space. The quality of the buildings themselves has improved. Most factory and office workers and their families now live in flats with all modern conveniences provided.

During the Eighth Five-Year Plan, investment in housing construction totalled 70,000 million rubles. This made it possible to provide 518 million square metres of new housing. In the last ten years, more than 100 million people have moved into new flats.



In Moscow, housing construction is progressing apace in a true Soviet style. The built-up area has increased from 177 to almost 1,000 square kilometres. In only three years, new housing becomes available equivalent to the entire floorspace of pre-revolutionary Moscow. More than 400,000 Muscovites move into new flats every year. The city's municipal economy has been almost fully re-equipped with modern plant.

The 24th Congress of the CPSU set the task of making

Moscow a model communist city. As it is, Moscow is fast becoming one of the world's best cities to live in. The successes scored by the people of Moscow in production during the eighth five-year period were accompanied by the further development of the city's complex municipal economy.

Capital investments in Moscow's economy since the revolution have totalled 30,000 million rubles. The city's face has changed beyond recognition. A number of monumental public buildings and structures have appeared in the city: the Kremlin Palace of Congresses, seating 6,000; the *Rossiya* and *Kosmos* cinemas; the Battle of Borodino Museum and Panorama; the television centre at Ostankino with its TV tower, the world's tallest, at 533 metres; the hotels *Rossiya* and *Minsk* and others; a number of big department stores, and airports. The new master plan for Moscow, when completed, will turn the Soviet capital over the next twenty years into a well-planned city with modern architecture, and excellent facilities for its inhabitants.

The growth of public wealth on the basis of higher labour productivity is not only a crucial prerequisite for raising real incomes of the population; it is equally important for the promotion of culture, science and the arts, which in this country belong to the people.

In the course of communist construction, important changes are taking place in the social structure of the Soviet society. These are conditioned by the Communist Party's policy, aimed at bringing closer together the country's working class, the collective farmers, and the intelligentsia, and also at the gradual elimination of the essential distinctions between town and country, between mental and physical work.

The cultural standards of the working class, society's main productive force, are rising rapidly. Speaking at the 24th Congress of the CPSU, L. I. Brezhnev said: "Today there is a steadily growing number of workers who have completely mastered their trade and who, having a secondary education, are continuing their studies and mastering the advanced achievements of science and culture. As a rule, these workers are politically active and they regard the interests of their enterprise and the entire country as their

own. The entire mass of Soviet working people look to these workers as models. . . ."[1]

Profound qualitative changes are taking place among the Soviet collective farmers. Progressive trends are in evidence among the intelligentsia. The drawing together of the working class, collective-farm peasantry and intelligentsia is increasingly in evidence. This is largely due to the continuing cultural progress in the Soviet Union.

The steady growth of labour productivity enables the Soviet Union to build up its labour and material resources, and this makes it possible to expand the non-productive sphere and promote cultural progress. The proportion of those employed in the non-productive sphere grew from 11.7 per cent in 1940 to 21.6 per cent in 1969. At the same time, expenditure on social and cultural measures has increased from 4,700 million rubles in 1940 to 64,400 million rubles in 1969, which is over 24 per cent of the national income. This is why the Soviet Union, a country with 100 per cent literacy, has moved ahead of the rest of the world in some fields of science and art. A quarter of the world's scientists and scholars are Soviet citizens.

The growth of labour productivity is of exceptional importance for increasing free time and a reduction in working hours.

A person's lifetime is a strictly individual value which is determined by the social conditions of his life. The radical changes in working conditions and in the overall "social climate" brought about since the socialist revolution have made it possible to lengthen the average life-span from 32 years in 1896-97 to 70 in 1969.

In bourgeois society, the worker is not his own master, even when he leaves the capitalist's factory. As Marx noted: "...the working-class, even when not directly engaged in the labour-process, is just as much an appendage of capital as the ordinary instruments of labour. Even its individual consumption is, within certain limits, a mere factor in the process of production."[2] That is why, in capitalist society, free time is a monopoly of the exploiters and "is acquired

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[1] *24th Congress of the CPSU*, p. 88.
[2] Marx, *Capital*, Vol. I, p. 538.

for one class by converting the whole life-time of the masses into labour-time".[1] Under capitalism, the working man is his own master only when he struggles for his liberation or when he prepares for this struggle.

Socialism has changed radically the position of the working population, the social nature of labour, and the whole way of life. The goal of social progress under socialism is the ever fuller satisfaction, as social production grows, of the material and spiritual needs of the population, the all-round development of working people. In abolishing the exploitation and oppression of man by man, socialism thereby proclaims the universality of labour and, in so doing, asserts the right of everyone to free time.

The industrial development of the economy and the growth of labour productivity are together a vital precondition for increasing free time, and, consequently, for cutting working hours, with a corresponding increase in time off. Higher efficiency of labour in material production makes it possible to build up the labour force in the sphere of public services. As a result, people spend less time on their daily concerns and household chores and gain extra free time accordingly.

The Communist Party has consistently pursued a policy of optimising the length of the working day according to the objective conditions of production and economic and political duties. The Soviet Union has the world's shortest working day—6.67 hours on average. Since 1913, it has been reduced by one-third. The working week has correspondingly come down to 39.4 hours from 59.4 hours in 1913. This compares with at least 40.7 in the USA, 44.1 in the FRG, and 46.9 hours in Britain. After the switch-over to a 7- and 6-hour working day, the Soviet people gained an extra 750-800 hours of time off as compared with 1913, or approximately 300 hours as compared with 1957.

Long working hours, a high unemployment rate and severe agrarian overpopulation—this dire legacy of the colonial past—are still present in the Republic of South Africa and other countries with racialist regimes. What is more, in former colonies which are still under the economic yoke of

[1] Ibid., p. 530.

foreign capital and are aligned on the imperialist powers, economic discrimination on the grounds of race and ethnic origin still persists. For the same work, European workers are paid 10 to 30 times as much as native population. Small wonder, therefore, that while life expectancy averages over 70 years in developed capitalist countries, it is 31-41 years among the indigenous population in many African countries. A case in point is Rhodesia, where the average life expectancy of the African population is under 50, as compared to 70 among the white settlers.

The facts show that the more fully the Leninist principles of economic management and standards of community living are implemented, the more efficient is social production, the greater public wealth and the more rapid the country's technical, economic and social progress. Under socialism, the people's well-being is directly dependent on the growth of national wealth.

The Soviet state spends unstintingly on education, culture, folk art, physical culture and sports. During the eighth five-year period alone, government spending on education, science and culture rose from 17,500 million rubles in 1965 to 24,500 million rubles in 1970. Allocations for science alone went up from 7,000 to 11,000 million rubles during this period.

Cultural facilities for the population improve with every passing year. In 1913, 10.6 million people were taking courses of study. By 1940 the figure had risen to 47.6 million, and by 1970 to 79.6 million. The number of public libraries increased from 14 thousand in 1913 to 95 thousand in 1940, and to 128 thousand in 1970. In 1913, a total of 99 million books were published, which figure rose to 462 million in 1940 to reach 1,362 million in 1970. The corresponding figures for newspapers were 3 million, 38 million, and 141 million copies.

The all-round development of man is an imperative condition for the further progress of socialist society. This development is a consequence of the growth of labour productivity and is a major precondition for the effective utilisation of the material and technical foundations of communism, which are now being laid by the Soviet people.

Other important indices of the Soviet people's well-being

are the down-turn in the incidence of disease and mortality rate, of infant mortality in particular, and the lengthening of average life expectancy.

Bourgeois ideologists, in an attempt to whitewash capitalism, blame many diseases on technological progress. In reality, however, the health of working people is largely dependent on social and economic factors, on their working and living conditions, and on the social climate in general.

Capitalism, not technological progress, is to blame for the fact that some 1,500 million people, out of the world's total of 3,500 million, either go hungry or suffer from chronic malnutrition. Even in advanced capitalist countries, the number of people whose housing or living conditions require improvement is on the increase. It is not technological progress but its application under capitalism that leads to excessive labour intensification, and to excessive pollution of the city air and the water reserves. It is private property that sends up the cost of health care to make it so expensive that the majority of the working people cannot afford it.

Before the revolution, Russia's health services were in a deplorable state. Owing to the insanitary conditions and lack of qualified medical care in Smolensk Gubernia, for example, every third child died before reaching the age of one.

The advent of Soviet power changed all that. By 1940, the number of doctors in Smolensk Region had grown fourfold, and that of medical institutions sevenfold. Destroyed by the fascist occupation forces in the last war, the material and technical facilities of the region's health service have long since been restored and expanded. Smolensk Region now has about 140 hospitals with 12 thousand beds, more than 15 sanatoria, rest homes and preventive treatment centres. The number of doctors in the region has increased 15 times as compared with the pre-revolutionary figure.

Since the revolution, notable changes have taken place in the health services of the formerly backward outlying areas of Russia. In the period from 1940 to 1970, the number of doctors per 10,000 inhabitants increased from 3.8 to 20.7 in Kirghizia, from 4.3 to 21.9 in Kazakhstan, and from 7.6 to 21.4 in Turkmenia.

Although the Soviet Union is still behind the advanced capitalist countries in some fields of technology and the economy, its health service is superior in all the most important respects.

The annual death rate per 1,000 of population is as follows: the Soviet Union—7-8; the USA—9-10; France, Britain and the FRG—11-12. Since the revolution, mortality rate here has been brought down by 75 per cent, infant mortality has been reduced to just one-tenth of what it was before the revolution, while life expectancy has doubled.

The victory of the socialist revolution in Russia cannot, of course, improve the lives of the people overnight. This requires huge material and labour expenditures, which can only be made possible by the steady growth of labour productivity and the raising of production efficiency generally. These expenditures are required for the provision of spacious, well-lit production premises with suitable facilities for labour protection and safety equipment, for industrial design, for comfortable living accommodation, for the further development of the entire health service, for the provision of further sports facilities, recreation centres, and so on. To enable material production effectively to cover all these expenditures and to release the required number of workers for the non-productive sphere, it is vital to obtain the maximum output on the minimum expenditure of living and past labour. It is also essential to improve labour efficiency in the non-productive sphere. The principal objective of the current five-year plan, as defined by the Directives of the 24th Congress of the CPSU, is to bring about a significant improvement in the Soviet people's material and cultural standards through the rapid growth and higher efficiency of socialist production, through scientific and technological progress, and through the accelerated growth of labour productivity.

In line with the decisions of the 24th Congress of the CPSU, a wide-ranging programme of social measures calling for massive material and labour expenditures is being put into effect in the Soviet Union. Per capita real incomes are to go up some 30 per cent by 1975. Minimum wages are to be raised, a measure which will require thousands of millions of rubles. But it is more than just a matter of money.

A rise in real incomes presupposes a significant increase in the stocks and range of high-quality goods. The volume of services offered to the population will again be doubled. As for the prices of consumer goods and charges for services, the Directives of the 24th Congress envisage that these will be stable, with subsequent price reductions as commodity stocks accumulate. The allowances and payments out of the social consumption funds grow more rapidly than wages: in 1972 they amounted to 72,800 million rubles, and by 1975 the total value of these payments and allowances will approach 90,000 million rubles. In per capita terms incomes derived from the social consumption funds grew from 24 rubles in 1940 to 295 rubles in 1972 and are expected to reach 353 rubles by 1975. The volume of social consumption funds in 1972 was calculated against a total population of 247 million.

A good deal is being done to improve working conditions further, to equip enterprises with up-to-date labour protection and safety techniques. The country's health services and educational system are being expanded and improved, as are institutions training industrial personnel and looking after children of pre-school age. It is intended to raise the pensions of factory, office and collective-farm workers, and to increase grants for students.

Wide-scale measures are being carried out to improve the living conditions of the Soviet people. Housing construction is being intensified all over the country. The quality of flats both in urban and rural areas is improving with the extensive use of electricity and gas.

The Directives of the 24th Congress of the CPSU give special attention to the task of bringing the standards of living of urban and rural dwellers closer together. To this end, the earnings of collective farmers are being raised to bring them closer to the level of the wages of industrial workers in corresponding categories. This presupposes an accelerated growth of labour productivity on the collective farms. The commodity turnover of rural retail trade is growing at a higher rate than previously, and cultural facilities and services are being expanded. New roads are being built and additional bus services are provided.

The Communist Party and the Soviet Government are

paying special attention to easing the burden of domestic chores. Under the current five-year plan, all forms of retail trade services are being improved and the network of public catering establishments is being expanded, especially on the production side. Industry continues to help the housewife with increasing supplies of labour-saving gadgets and household appliances. Transport services and telephone networks are being extended and improved.

The Directives of the 24th Congress of the CPSU are imbued with a truly Leninist concern for the good of man, for the ever fuller satisfaction of the requirements of Soviet people. This concern rests on solid economic foundations, the durability of which is guaranteed by high growth rates of labour productivity in all branches of the economy. In the current five-year period, labour productivity in industry is to go up by 36-40 per cent, in agriculture by 37-40 per cent, in the building trades by 36-40 per cent, and in railway transport by 23 per cent. Whereas under the Seventh Five-Year Plan output in industry grew by an average of 4.6 per cent, under the Eighth Five-Year Plan by 5.8 per cent, under the Ninth Five-Year Plan it is to grow by 6.3-7 per cent annually. Agricultural production for the same periods showed the following rates of advance: 3.4, 6.2 and 6.5-7 per cent respectively.

The wide-ranging programme of social measures set out in the Directives of the 24th Congress lays emphasis on a more rapid growth of labour productivity in the industries producing consumer goods. In light industry, it is to grow by 34 per cent, and in the food, meat and dairy, and fish industries by 30-33 per cent. Enterprises manufacturing producer goods are paying increasing attention to the production of consumer goods. This will make it possible to increase the output of consumer goods by 44-48 per cent by 1975, while the output of producer goods will go up by 41-45 per cent.

The success achieved in the eighth five-year period and the ambitious programme of further development outlined by the 24th Congress by no means indicate the limit of the possible for the Soviet people. Lenin pointed out that as "...equality is achieved for all members of society *in relation* to ownership of the means of production ... humanity will

inevitably be confronted with the question of advancing farther, from formal equality to actual equality, i.e., to the operation of the rule 'from each according to his ability, to each according to his needs' ".[1]

The achievement of this supreme goal will require additional material expenditures and still greater labour effort. Both the ultimate goal—the transition to the higher stage of communism—and the intermediate tasks tackled by socialist society call for the growth of labour productivity at the highest possible rate. Of all the economic tasks facing Soviet society today, priority is given to growth in the efficiency of social production and the achievement of a substantial increase of labour productivity for the economy as a whole.

[1] V. I. Lenin, *Collected Works*, Vol. 25, p. 472.

CHAPTER IV

THE WAY TO HIGHER EFFICIENCY OF SOCIAL PRODUCTION

To add to the country's wealth by raising the efficiency of social production is only possible given improvements in the production process.

It is essential above all to raise the technical standards of the instruments of labour. Further, it is important to increase the capacity and effectiveness of the key technological equipment, machines, apparatus, instruments, tools and appliances. A greater capacity of plant and equipment is necessary for lower labour intensiveness, higher output, and a reduced share of wages in prime cost. A higher effectiveness of the means of production implies reduced expenditures on their manufacture and operation and, as a consequence, reduced material expenditures per unit of output.

Improving the subjects of labour means better-quality raw materials, primary products and semimanufactures at less cost. In the final count, improvement of the material elements of production is a task for the natural and technical sciences and is a matter of technical equipment and technology.

Improvement of labour power as a totality of man's physical and moral capacity for producing material values requires better general educational standards among the workers, higher skills and qualifications, further physical and psychological training for work in specific conditions, the inculcation of socialist labour discipline, and the cultivation of a creative attitude to the job in hand. All these are important social tasks.

But the material and personal factors of production, however perfect, cannot by themselves guarantee a high

level of production efficiency. It is important to organise their proper interaction, to avoid stoppages, to ensure the rapid progress of subjects of labour from one type of operation to another, and use the capacity of plant and equipment more fully. These tasks are the responsibility of the production managers and economists.

The many and varied factors contributing to higher production efficiency and to the growth of social wealth can be reduced to the five basic groups: technical, effecting progress in science, technical equipment, and technology; social, aimed at improvements in the main productive force and in the relationships among the workers; organisational, ensuring the productive interaction of the different elements of production by the scientific organisation of production and management; economic, aimed at heightening the material interests of the workers in better production results; and finally natural, which depend on the natural conditions of production and the available natural resources. These factors do not function separately, but all together. Let us examine the operation of each of the above-mentioned groups of factors in more detail.

BETTER TECHNICAL FACILITIES AS THE BASIS FOR HIGHER PRODUCTION EFFICIENCY

With the advent of the machine, the efficient production of material wealth grew increasingly dependent on the technical equipment of the enterprises, on the amount and quality of the means of production used. As early as the mid-19th century, Marx wrote that with the development of machine production, the creation of real wealth became less dependent on the labour time and quantity of labour spent, and more on the capacity of the agents set in motion during the working day, agents which are themselves a powerful source of productivity.

Today, in the middle of the scientific and technological revolution, this proposition of Marx is particularly apposite.

The current scientific and technological revolution involves socialist countries and advanced capitalist countries. But the

aims, methods and consequences of the use of the scientific and technological revolution in capitalist countries are quite different from those in the socialist countries. Capitalism uses developments in science and engineering to intensify the exploitation of the working masses for the enrichment of the multimillionaires, for the consolidation of their dominance, for the production of new types of weapons (nuclear-missile, chemical, bacteriological) and the expansion of imperialist aggression. This is especially true of American imperialism. As was stated in the Document of the 1969 International Meeting of Communist and Workers' Parties: "The events of the past decade have laid bare more forcefully than ever the nature of US imperialism as a world exploiter and gendarme, as the sworn enemy of liberation movements."

At the same time, the present scientific and technological revolution is exacerbating the contradictions of modern capitalism, increasing the exploitation of man by man, sending the unemployment rate up, bringing further hardships upon the working masses, and aggravating the conflict between labour and capital. It gives a new dimension to the contradictions between industrialised capitalist countries and those that have fallen under their economic power. The antagonisms between developed capitalist countries themselves have worsened, since the scientific and technological revolution changes the alignment of forces between them and makes for the unevenness of capitalist development.

All this serves to intensify the decay of capitalism as a system and makes the revolutionary transition to socialism vitally necessary.

In socialist society, the scientific and technological revolution directly contributes to the development of the material and technical basis of communism, helping to eliminate the essential differences between mental and physical work, and between town and country. Technological progress in all branches of the national economy has become a powerful lever for boosting labour productivity. In the eighth five-year period, technological progress accounted for 55-60 per cent of the total growth of labour productivity in industry.

Speaking at the 3rd Congress of the Komsomol over fifty years ago, Lenin said that the Soviet economy must develop "on modern technical lines, based on modern science and

technology, on electricity".[1] He proposed to "introduce more machines everywhere, and resort to machine technology as widely as possible".[2]

Soviet scientists are making a weighty contribution to the improvement of technical standards in production. In the eighth five-year period, new and highly efficient machine systems and processes were developed and introduced in production.

Between 1968 and 1970 alone, a total of 8,690 new types of machinery, equipment and apparatus, and over 3,000 types of instruments and automatic devices were developed.

Automatic control systems are being introduced in industries employing sophisticated technological processes.

The truly spectacular achievements of the Soviet Union in space exploration testify to the tremendous potential of Soviet science and industry.

The power-to-worker ratio is perhaps the most generalised index of the technical level of industrial development. This ratio largely shapes the technical standards of production, which in turn determine the saving of living and past labour. It has been estimated that in Soviet industry over the past ten years an increase of the power-to-man ratio of one per cent puts up labour productivity by 0.75-0.8 per cent. At poorly equipped enterprises which for this reason have a low power-to-man ratio, production costs are 4-5 and even 10 times those at enterprises employing modern equipment.

In the Soviet period, the power-to-worker ratio in industry has grown 30 times while the electrical power-to-man ratio has risen over 40 times. In the eighth five-year period, the latter went up 50 per cent.

The Ninth Five-Year Plan opened up new prospects for the development of electrical power engineering. In line with the Directives of the 24th Congress of the CPSU, the development of hydroelectric schemes continues unabated. The capacity of thermal power stations is being increased. Great attention is being paid to the atomic power stations, whose capacity is expected to go up by 6-8 million kilowatt-

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[1] V. I. Lenin, *Collected Works*, Vol. 31, p. 289.
[2] Ibid., p. 510.

hours by 1975. This is five times the aggregate capacity of all power stations envisaged by the GOELRO Plan (for the electrification of Russia). By the end of 1975 power production in the Soviet Union will exceed one million million kilowatt-hours. Direct current transmission lines of 1.5 million watts capacity will link up the power grids in the European part of the Soviet Union and the Eastern areas to increase the consumption of electric power for industrial and domestic purposes. On this basis, electricity-consuming technological processes will be introduced on a much wider scale. At the same time, measures are being carried out to centralise and concentrate the production of steam and hot water. In due course this will help to eliminate small boiler units and low-capacity electric-power stations, and to improve the efficiency of power production generally.

Intensive industrial development is characteristic of all parts of the USSR, particularly of once backward fringe areas of the country. Technological progress is becoming more and more of a key factor in industrial growth.

The Frezer Works in Moscow is a typical Soviet industrial enterprise. The works uses 32 automatic and semi-automatic lines, in addition to two fully mechanised lines for the mechanical and thermal processing of tools, most of these lines having been built by the workers themselves. Between 1966 and 1969, the works started up some 200 new technological processes and launched the series production of 34 new models of tools and equipment. All this enables the works to save a total of 300,000 rubles annually.

Because of comprehensive technical modernisation at the works, the average annual increase in productivity rose from 5-6 per cent in 1961-65 to 8.5-9.5 per cent in 1966-70. The works fulfilled the productivity target under the previous five-year plan ahead of time in October 1969.

Alongside quality changes in the technical equipment of enterprises, the range of products has expanded considerably and consumer qualities of output have improved. Enterprises in Moscow Region, for instance, have launched the series production of underground railway coaches, motorcars, chemical and metallurgical equipment, diesel locomotives, highly complex machines and instruments, new kinds of chemical products and a wide variety of consumer goods.

Inventions and rationalisation have a beneficial effect on production efficiency.

In the Soviet Union as a whole, the number of inventions and rationalisation proposals grew from 202,000 in 1940 to 3,414,000 in 1970.

The Leninist Komsomol Motor Works in Moscow saved about one million rubles in 1969 solely through the introduction of inventions and rationalisation proposals. In 1970, the figure rose to 1,100,000 rubles. At the same time, measures improving production organisation and technical equipment resulted in economies of 1,800,000 and 2,000,000 rubles respectively.

Despite impressive success, the Soviet Union still lags behind some of the more industrialised capitalist countries in the technical equipment for production.

As was pointed out in the 1966 decision of the CC of the CPSU and the Council of Ministers of the USSR on raising labour productivity in industry and construction, one of the reasons behind this situation is largely the misuse of capital investments. Most of these investments go into buildings and installations, with only a third being spent on reinforcing the active part of the basic production assets. So far, not enough has been spent on automation, which is the highest stage of mechanisation.

Mechanisation and automation of auxiliary and subsidiary sectors of production—particularly of transport, warehouse and handling operations—are major ways of economising in social labour. So far these operations have tied down a considerable number of personnel most of whom have to perform them manually.

The experience of the State Ball-bearing Plant in Moscow indicates the considerable opportunities for saving work time and labour. At this enterprise, automatic quality-control devices do the job of 2,500 human operators. Each automatic device does the work of 3-10 human quality-controllers. The capacity of these control and sorting machines puts productivity up by a factor of 7 as compared to human operators.

Among the purely technical factors affecting production efficiency, the continual improvement of technology is of major importance. In the eighth five-year period, high-effi-

ciency physicochemical, electrophysical and electronic processes were developed and introduced on a wide scale. This accelerated the production process, reduced the labour intensity of products, and slashed the consumption of materials.

The Ninth Five-Year Plan marks a new and important stage in the technical modernisation of production.

The Directives of the 24th Congress of the CPSU provide for speeding up scientific and technological progress by intensifying research in the most promising areas of science and by cutting the preparatory period before applying research results in production. It is planned to replace manual labour by comprehensive mechanisation.

To this end, fundamentally new instruments of labour, materials and processes are being developed and launched into production. For performance characteristics, some of these are ahead of the best Soviet and foreign achievements.

Of major importance is the replacement and modernisation of obsolescent types of machinery and equipment, as envisaged by the Directives of the 24th Congress. This will be achieved by increasing the margin of depreciation charges and reducing the volume of low-efficiency kinds of major repairs.

At the same time, measures are being taken to improve the technical standards and raise the efficiency in modernising and repairing plant and equipment. Specifically, steps will be taken to effect a gradual transition from the established practice of the decentralised manufacture of assemblies, units and components to their specialised production at enterprises engaged in the manufacture of the machinery concerned.

It is intended to complete the comprehensive mechanisation of key production processes in industry, construction, agriculture, and the transport system. The unit capacity of the key types of plant and equipment is being increased with a view to making their operation still more economical.

Special attention is being given to the development and introduction of numerically controlled automatic equipment. Enterprises manufacturing plant and equipment will be responsible for the provision of adequate replacements, components and units for use in repairs and for securing the operating characteristics required.

A reduction of material expenditures by one per cent in industry increases the national income by 2,500 million rubles. That is the reason why it is important to achieve greater precision and reduce the weight of blanks and intermediate products, to introduce precision casting, employ advanced methods of pressing, stamping and welding, to improve technological processes, strictly observe production techniques and improve labour discipline.

In recent years further improvement of technological processes accounted for over 50 per cent of the increase in pig iron production, three-quarters of the increase in steel smelting, and two-thirds of the increase in rolled stock production. Thanks to this development, the efficiency of blast furnaces at many iron and steel works in the USSR is now higher than at similar enterprises in the USA and other capitalist countries.

Continual improvement in metalworking techniques makes it possible to save labour considerably. These include advanced methods of casting, stamping and welding. Pressing, knurling and rolling techniques, for instance, make it possible to save 18-20 per cent of the metal and increase productivity by up to 100 per cent.

A good deal of attention is being paid to the use of precision blanks. In the engineering industry, the use of such blanks raises the use-coefficient of metal by 100-200 per cent. At the same time labour expenditure when machining precision blanks is reduced to a mere one-fifth of the nominal. Stamping techniques, too, are being increasingly used to replace machining. This makes it possible to save 250,000 tons of metal out of every one million tons of rolled stock and release up to 15,000 machine tools and up to 30,000 workers. Unfortunately, the use-coefficient of rolled stock in the engineering industry is still low. Cutting techniques are still used widely to the detriment of the more advanced techniques of metalworking by pressing, stamping, extrusion, knurling and welding.

The Directives of the 24th Congress of the CPSU provide for the large-scale introduction of progressive technological processes. The progress of chemistry and electronics accelerates the development and industrial application of new chemical processes based on electronics.

Another important factor in boosting production efficiency is the reduction of materials consumption without prejudicing the quality, reliability and service life of the product. To this end, large-scale work is in progress to improve the quality of raw materials and primary products, to ensure their use with minimum waste. Great attention is being devoted to the development and introduction of new and more economical types of materials. Advanced and highly efficient techniques are being developed and introduced for hardening metals and other industrial materials, and the range of these is being enlarged.

The Communist Party has outlined extensive measures to accelerate the development of the chemical industry. These measures will make it possible within the next few years to expand the application of chemistry and chemical methods throughout the national economy, and thus to secure additional savings of social labour. Today there is hardly an industry where chemical products are not used as essential materials. In the engineering industry, chemical products compete with metals; in the textile industry, they replace cotton and wool; in the building trades they are the most widely used of all. Synthetic chemical products, such as fatty acids and alcohols, will save large quantities of the valuable raw materials used in the food industry.

Considerable attention is being given to improving product quality. The scientific and technical standards are being upgraded, technical specifications renewed, and the old performance characteristics perfected.

The Directives of the 24th Congress of the CPSU lay special emphasis on the all-important task of the technical improvement of production. It is planned to carry out the standardisation and unification of units and components for machines and mechanical aids of intersectoral application, as well as of instruments and equipment, and to implement the standardisation of manufacturing techniques.

These measures will mean a huge saving of labour, money and time.

In the current five-year period, the Soviet people will take a new step forward towards the solution of the principal economic task, facing the USSR. A fully comprehensive machine system is being developed. Alongside the power,

technological and transport components of the system, the managerial link will assume considerable importance.

The restructuring of the managerial system on a new technical basis will mean the wide-scale introduction of computer technology. The task has been set to launch the line production of high-efficiency computer hardware, minicomputers and data transmission equipment.

A characteristic feature of the Communist Party's technological policy in the current five-year period is concern not only for the efficient application of the latest achievements in science and engineering, but also for stimulating basic and applied research on an ever-growing scale.

To this end, work continues on problems in mathematics and cybernetics to promote the more extensive application of mathematical methods and electronic computer techniques in the economy, as well as to speed up the automation of production processes and to improve managerial techniques. Intensive research is being conducted in nuclear physics, solid-state physics, semiconductors, quantum electronics, low-temperature physics, etc., with a view to developing new materials and more efficient processing techniques. It is intended to introduce fast-neutron reactors into industry, to solve the problem of thermonuclear synthesis, and to work on a whole range of other major problems in science, all of which will prepare the ground for the next stage in the scientific and technological revolution.

In outlining the prospects for the Soviet Union's economic development between 1971 and 1975, the Soviet Communist Party proceeded from the fact that scientific and technological progress now is becoming a major area of the historical competition between socialism and capitalism. That is why the progress of science and technology and the wide-scale application in production of the latest achievements are not only a central technical and economic, but also a major political task. Its successful solution will mean heavier demands on Party, trade union and public organisations, and on all personnel.

THE WORKING MAN AS THE MAIN PRODUCTIVE FORCE

Instruments of production, machinery and equipment play an increasing part in adding to the country's public wealth. But the working man has been and always will be the most important factor in production. After all, he is the one who makes and sets in motion the instruments of labour to produce material values. To do this, he must possess the requisite skills, production experience, and know-how.

Lenin wrote: "*The primary productive force of human society as a whole is the workers, the working people.*"[1] That is why in 1919, amid the wholesale destruction that the imperialist intervention and Civil War had left in their wake, Lenin emphasised that the main thing under the circumstances was to save the working class, to save the working man, the main productive force. If we save the working class, Lenin argued, we shall be able to restore and multiply our wealth.

And his foresight proved well founded. Since the revolution, this country has developed a qualitatively new collective labourer. In industry, it is mainly represented by the personnel of factories and plants. The proportion of white-collar workers increased from 7 per cent in 1940 to 9 per cent in 1970, while that of learners went down from 3 to 1.6 per cent.

According to recent statistics, the proportion of engineers and technicians in the aggregate industrial labour force is considerable. As technological progress continues, the composition of the blue-collar workers is undergoing changes. Their cultural and technical standards are steadily rising, the number of specialists with special qualifications is growing, and workers are acquiring a wider range of skills.

In the eighth five-year period alone, according to surveys of the industrial population conducted between August 1965 and August 1969, the number of operators, motormen and their mates grew by over 100,000; that of machine-tool operators by some 200,000; of electricians by 120,000; and of automatic machine-tool setters and adjusters by 65,000. At

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[1] V. I. Lenin. *Collected Works*, Vol. 29, p. 364.

the same time, the numerical strength of those engaged in heavy work declined. The number of face workers, hewers, roofing workers and headers declined by 33,000; of moulders by 1,000; of forgers and their mates by 9,000; and of labourers in handling operations by 28,000. The switch-over from mechanised to automated production requires of workers elementary engineering and technical knowledge. Already at the beginning of the eighth five-year period, about 200,000 specialists with a secondary specialised education were employed in Soviet industry as highly skilled workers.

Higher levels of general and technical competence are becoming imperative. Without this, it will be impossible to build up and use efficiently the material and technical resources of communism, to ensure the steady growth of the country's public wealth.

The current scientific and technological revolution is making heavier demands on the general, special and economic training of all those engaged in the national economy, especially industrial workers. The switch-over to mechanised and then to automated production shifts the centre of gravity from physical to mental work. At the Likhachov Motor Works in Moscow, for instance, the share of working time spent on operations demanding both physical and mental work reaches 64 per cent of the total. The setting, adjusting and control of machines and the regulation of the production process are assuming increasingly greater importance. Introduction of sophisticated and expensive equipment enhances the operator's responsibility for its smooth running and demands of him better knowledge of the entire production process in which the work-place is a vital link. Each worker must be able to take his bearings at any time in the complex and highly fluid production situation. The need arises for changes of operation, and this is possible, given competence in a number of allied trades, which is a must in conditions typical of advanced mechanisation, to say nothing of automation. All this calls for a good knowledge of the scientific, technical, organisational and economic rudiments of production, of the principles underlying the organisation of technological processes, working conditions, etc. This perhaps explains why in this country almost each worker is now engaged in some form of study.

The continual improvement in cultural and technical standards is accompanied by a higher efficiency of labour and a rise in the well-being of the workers. According to Academician S. G. Strumilin, in 1960, 24 per cent of the national income (33,700 million rubles) was obtained through a higher educational level and higher qualifications of the workers. Recent surveys conducted at a number of factories and plants in Moscow revealed that fulfilment of the output norms, and consequently the wages of the workers, are dependent not only on their skill as workers but also on their general education.

Before the revolution, most of the population in Russia were illiterate. Even in Moscow Region as late as 1926, literacy among people aged 9 to 49 reached 50 per cent. Today, illiteracy is a thing of the past. The number of secondary schools in Moscow Region has increased by 20 times. The switch-over to universal secondary education is being completed. The network of boarding schools and schools with after-school groups is expanding.

A good deal of attention is being paid to the general and specialised education of young workers. The number of young workers of both sexes attending evening classes in urban and rural areas increased from 768,000 in 1940/41 school year to 3,925,000 in 1970/71.

The cultural facilities that existed in many areas of the Soviet Union before the Great Patriotic War were destroyed during the nazi occupation. Rehabilitation work began immediately after the liberation of these areas from the German invaders. In the post-war period, favourable conditions were created everywhere for the development of general and specialised education facilities for the rising generation and adults alike.

The main productive force is growing in all areas of the Soviet Union and its quality is improving. According to the 1959 census returns, 38.6 per cent of the workers had higher and secondary education (including incomplete secondary). In 1970 the proportion was 55 per cent. The figures for the rural population were 6.3 and 49.9 per cent respectively. The acceleration of scientific and technological progress has led to an intensive growth in the numbers of scientific workers, engineers, technicians, agronomists and other specialists with

higher and secondary education. In the last five years, 60 new higher educational institutions were opened in the Soviet Union, including nine universities.

It is impossible to overestimate the importance of social planning in raising the Soviet people's physical and psychological capacity for work. Many Soviet enterprises initiated social planning programmes during the Eighth Five-Year Plan. Schools of communist labour are gaining importance in the practical activity of production collectives.

The composition of the country's industrial work force improves from year to year. Vocational and technical schools train over 1.6 million skilled workers every year. In the period 1940-70, these schools trained a total of 25 million skilled workers.

The Ninth Five-Year Plan is seeing growing attention being paid to the development of the country's main productive force. The Directives of the 24th Congress of the CPSU provide for a still higher educational level and qualifications of working people to bring them in line with the requirements of the current scientific and technological revolution. Work is being stepped up on improving job-counselling facilities for students, with full consideration for their particular inclinations and the demands of the national economy for skilled personnel. Particular attention is being given to the training of specialists in the new areas of science and technology, for rapidly developing industries and the services sphere.

The training of skilled workers in vocational schools, particularly in rural areas, is being expanded substantially. Facilities are being provided for young people acquiring some sort of professional training before they enroll as workers at a factory. By 1975, the final year of the current five-year period, vocational schools offering training in trades requiring a high level of technical competence alongside providing secondary education will be enrolling 300-400 thousand students every school year. Altogether, in the ninth five-year period a total of nine million graduates of vocational and technical schools will join the country's skilled work force.

Thanks to the rapid rise of the technical level of production science is increasingly invading production. The aggre-

gate work force is being joined not only by engineers and technicians, but also by scientists. On the other hand, ordinary workers are becoming increasingly involved in scientific and technological research and development. Production is becoming a technological application of science—as was predicted by the founders of Marxism. Along with changing the content of labour, science, through its application in production, helps to eliminate essential distinctions between physical and mental work, to change the relative position of different workers within social production, and to eliminate social distinctions.

The Communist Party has always attached great importance to the economic training of the masses seeking to foster a sense of personal responsibility for the work in hand. Speaking at the 15th Congress of the Soviet Komsomol in 1966, L. I. Brezhnev said: "It is a mistake to think that economic laws are the preserve of top scientists and economic executives. These laws if correctly understood and mastered dictate the logic of behaviour not only to the manager, engineer, scientist, and technician but to every rank-and-file worker and collective farmer, too."

The economic training of industrial personnel is becoming ever more specialised and objective-oriented, and the latest technological developments are being made more widely known.

Adult education centres (people's universities) are coming to play an important role in the dissemination of economic knowledge and technological developments to stimulate higher labour productivity. Since the economic reform got under way, the number of people's universities dealing with economic problems and technological advance has increased. Problems of scientific and technological progress, the growth of labour productivity and the introduction of scientific organisation of labour are being given extensive coverage by the mass media.

Speaking at the meeting of the Central Committee of the Communist Party of Kazakhstan and the Supreme Soviet of the Kazakh SSR to mark the fiftieth anniversary of the Republic in August 1970, L. I. Brezhnev said: "The continued growth of large-scale, modern socialist production, the progress of the scientific and technological revolution within

this production make new exacting and constantly stiffening demands on all those in industry and agriculture to raise the standard of labour, organisation of work and show higher discipline, to use the new machinery and equipment efficiently so as to get the most out of them. Without this, comrades, capital investments, however great, in the development of our economy would lose much of their effect. Without this we would fail to achieve the necessary progress for the solution of the main socio-economic task facing us—to create the material and technical basis of communism."

THE ROLE OF PRODUCTION AND MANAGEMENT ORGANISATION

It is essential not only to have well-developed productive forces, but also to use them efficiently. Improvement of labour organisation, of production and management on a scientific basis is an imperative condition for saving social labour and attaining a high level of productivity. Lenin stressed: "For the Soviet government, ... it is the organisation of labour in any particular large enterprises, in any particular village communes that is the chief, fundamental and urgent question of all social life."[1]

Today, the extent of the utilisation of manpower and material resources and to a great degree the rates of technological progress depend on the organisational level of production. If the raising of production efficiency by intensification is a major strategic avenue for the development of the Soviet economy, then the scientific organisation of production and management is an indispensable condition for success in this work.

Experience gained by many Soviet enterprises shows that the main reserves for saving labour lie in the more efficient use of labour time by improving the division and co-operation of labour, and the servicing operations in the production process, by employing rational methods and techniques, by improving rate fixing and by observing high production discipline.

Better production organisation makes it possible to elimi-

[1] V. I. Lenin, *Collected Works*, Vol. 27, p. 204.

nate losses of labour time arising from lack of raw and primary materials, tools, technical documentation, hold-ups while waiting for the arrival of transport and hoisting equipment, briefings, etc. Experience at advanced enterprises indicates that it is possible to halve losses of labour time by improving labour organisation, with labour productivity in industry as a whole going up by some 6 to 7 per cent.

The scientific organisation of labour (SOL) is becoming an increasingly important factor in the day-to-day activity of enterprises and is bringing positive results. The use of the SOL at enterprises in Moscow Region, for instance, results in an economy of tens of millions of rubles every year. At the synthetic fibre complex in the town of Klin, for instance, the average annual increase of gross output between 1966 and 1969 amounted to 5.7 per cent. Labour productivity increased by 8.1 per cent. In this period, 9.6 per cent of the complex's total work force were freed for alternative employment. Over half of them were released thanks to the introduction of the SOL.

Continual improvement of methods and techniques is a crucial element of the scientific organisation of labour. The more rational and economical these methods are, the less labour time is spent on this or that operation and the more intensive is the use of the means of production, all other things being equal. Foremost workers, by using economy of movements and by the proper handling of tools and appliances, manage to reduce the time usually spent on a definite type of operation by 20 to 33 per cent.

The experience, skill and savvy of advanced workers save an incalculable amount of labour. In 1969 the Moscow Refrigerator Factory analysed working time expenditures on particular operation. A study was made at each work bench of the various procedures used in the performance of a particular operation, and in the light of this study, the most efficient and rational ones were selected. All the workers benefited by the advanced experience thus gained in that later technically justified rate fixing and other measures were put into effect.

The improvement of labour organisation is inconceivable without improved rate fixing. It is necessary, Lenin wrote, to "fix labour quotas and see that they are carried out at all

costs".[1] A good deal has been done in this area. Unfortunately, over 20 per cent of norms currently in force in Soviet industry are still of an experimental nature and, what is more, their standard is very low. Every ninth piece-rate worker fails to fulfil his output quota because of poor labour organisation.

Working conditions influence the level of productivity. Good lighting, fresh air, low noise and vibration levels, normal temperature create favourable conditions for highly productive and efficient labour. Experience shows that in some instances during quality control of ball-bearing components the increase of lighting from 54 to 215 luxes puts productivity up by 12.5 per cent.

Enterprises and offices have accumulated a good deal of experience in improving labour organisation. Many big plants have set up their own bureaus for this purpose, ministries have specialised research centres, and special groups and teams are active in drawing up and implementing SOL projects.

This is only the beginning. The Directives of the 24th Congress of the CPSU emphasised the need for introducing scientific labour organisation in every possible way. The task now is to raise systematically the organisational level of production everywhere. Speaking at the meeting of the Central Committee of the Communist Party of Kazakhstan and the Supreme Soviet of the Kazakh SSR to mark the fiftieth anniversary of the Republic, L. I. Brezhnev emphasised: "It is quite clear that the raising of the standard of labour in every way is not only a matter of great importance but one of vast scope. To do so in a proper way requires a large-scale and energetic effort on the part of the whole Party, of all of our Soviet government bodies, the trade unions and other public organisations."

A high organisational level of production is a precondition for saving not only living labour, but also past labour which is materialised in the means of production. It is particularly important to improve the use of the latter, because the giant production machine that has been built up in Soviet

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[1] V. I. Lenin, *Collected Works*, Vol. 30, p. 141.

times is being used below capacity and with an unacceptable margin of idle time.

The 24th Party Congress called attention to the need for using productive capacities and basic assets more effectively. The Directives of the Congress require production collectives to increase output per unit of basic assets by using plant and equipment more fully, raising average machine shift, eliminating idle time, launching new productive capacities into full production more quickly, and speeding up the production cycle.

The high rates of industrial production in the recent past have mainly been due to increased capital investments and additional productive capacities. The accent is now on using these capacities as fully as possible.

A low level of utilisation of the fixed productive assets entails great losses. From an economic viewpoint, the raising of average machine shift and lengthening of the service life of plant and equipment result in a huge saving of labour power and material factors of production. The switch-over of industrial enterprises to a continuous mode of operation and even to two full shifts will greatly accelerate the movement of circulating assets and will increase output with the same productive capacities. Furthermore, a higher average machine shift will help concentrate capital investments in fundamentally new branches of production and will make it possible to retool existing enterprises more easily and quickly.

The raising of the average machine shift at some enterprises will enable them to take over temporarily the whole or part of the production programme of other similar enterprises while they undergo the necessary modernisation and retooling without affecting unduly the overall volume of output in the process.

To switch enterprises to a continuous five-day working week with two days off is no easy matter, requiring as it does special organisational, technical, economic and social preparations. But such a switch is now made imperative by the present scientific and technological revolution and is quite possible of accomplishment.

Soviet industry has gained considerable experience in the continuous five-day working week with two days off. All enterprises where an uninterrupted mode of operation is dic-

tated by production requirements are running on a continuous basis. The same system has been adopted in some other branches of the economy. Optimum shift schedules have been found and compensation arrangements have been introduced to make up for the inconvenience of having to work at night and on Sundays. The experience of enterprises in other socialist countries operating on a continuous basis is worth studying since it also shows that there are no insuperable obstacles in the way of a switch to a continuous mode of operation for industrial enterprises.

The switch to continuous working is fully in tune with modern requirements for the use of equipment.

Speaking at a meeting of Moscow electors on June 10, 1970, A. N. Kosygin said: "At the present stage of scientific and technological progress plant and equipment, machine tools and instruments become obsolescent after increasingly shorter periods of operation under the impact of new technological developments and the discovery of new processes. In view of this the task of using plant and equipment more intensively, efficiently and for longer periods acquires added urgency." The solution of this task, together with changing the mode of operation of enterprises, calls for a systematic upgrading of production organisation.

In his report to the 24th Congress of the CPSU A. N. Kosygin said: "Together with the mechanisation of labour there is need systematically to improve the organisation of production and labour, to popularise advanced methods of work, and drastically reduce losses of working time.... Special attention must be devoted to an improvement of the organisation of ancillary operations, in particular, materials handling, where great numbers of workers may be released for use in the basic production processes."[1]

Specialisation is a central factor in rationalising production organisation. Current experience shows that production costs at specialised enterprises are only a fraction of those at all-purpose ones. As a rule, labour productivity at such enterprises is double and even treble that at non-specialised enterprises.

Despite the obvious economic advantages it offers, special-

[1] *24th Congress of the CPSU*, p. 151.

isation regrettably lags behind technological progress. The reason is the insufficient standardisation of units and components. Elimination of this drawback will make it possible to use widely more effective types of specialisation, viz., specialisation in the manufacture of particular types of components and technological specialisation with the simultaneous concentration of production at fewer factories.

Great benefits should come from specialisation in the manufacture of particular components for intrasectoral use. In heavy engineering, this type of specialisation could help concentrate the output of particular components and units at a much smaller number of plants and cut production costs by 9-10 per cent. Such specialisation in other industries could be just as profitable. In view of the intensive introduction of advanced technologies at industrial enterprises, as provided for by the Directives of the 24th Congress of the CPSU, close attention should be devoted to the improvement of the existing repair and maintenance services. Measures are being taken to set up specialised repair complexes and workshops. This will make it possible to use highly efficient repair equipment and advanced technologies. The result will be a double gain—higher quality of repair work and lower costs.

A similar series of measures is envisaged by the Directives of the 24th Congress to introduce specialisation into toolmaking, which has so far been dispersed among the toolmaking workshops of numerous industrial enterprises. The tools are often made by outmoded techniques, with the result that production costs are prohibitive.

Along with specialisation, Lenin attached great importance to combination of production, which is a potent factor in boosting the social productivity of labour. Production combination offers such advantages as definite sequence in processing the subjects of labour, a shorter production cycle, fuller utilisation of the material properties of subjects of labour, improved use of instruments of labour and manpower, reduced expenditures on transport operations and installations.

The setting up of production and research-cum-production amalgamations opens up new opportunities for raising the technical and organisational level of production.

The merging of scattered and, for the most part, small

enterprises into larger units is no simple administrative measure. Larger production amalgamations are better placed to develop the combination of specialised operations, and this offers great scope for improving the technical, economic, organisational and social levels of production.

In outlining targets for raising the organisational level of production in the current five-year period, the 24th Party Congress paid close attention to the need to concentrate and co-operate production, to develop specialisation, set up large-scale production amalgamations and complexes taking account of the special features of individual sectors.

The setting up of production amalgamations is dictated by the imperative need to develop this country's productive forces further. This constitutes a major form of production concentration at the present stage. That is why the 24th Congress pointed out: "The line of forming amalgamations and combines should be followed more boldly: in the long term, they must become the main units of social production operating on a profit-and-loss basis."[1]

Large production amalgamations are well placed to speed up technological advance, to use all production resources more fully, and to develop production specialisation, scientific organisation of labour, production and management. At the same time, such amalgamations make it possible successfully to tackle such complex social questions as housing construction and the development of social consumption funds, and to eliminate essential differences between brain and manual workers.

In the space of five years, a total of 1,400 production amalgamations have been set up in the Soviet Union. They comprise over 14,000 industrial enterprises with a total work force of 7.7 million. Apart from industrial enterprises, amalgamations include scientific research centres and R & D organisations. All this makes for higher efficiency of social production, which is critical to building up the material and technical basis of communism.

Of great importance too was the 1973 Decision of the CC of the CPSU and the USSR Council of Ministers on "Mea-

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[1] *24th Congress of the CPSU*, p. 82.

sures to Improve Industrial Management" which opened the way to the development of production amalgamations as basic units of social production operating on a profit-and-loss basis. The above decision tackles in organic unity such crucial problems as the streamlining of the organisational structure and improving the style of work of management bodies, the creation of favourable conditions for boosting production efficiency and stepping up scientific and technological progress and the further development of current management techniques and methods.

Modern production is characterised by high growth rates and increasing complexity of interdepartmental liaison. In view of this, the amount of information necessary for efficient management is constantly growing. In this situation, the rationalisation of management techniques is of increasing importance for raising the efficiency of social labour. That is why the Communist Party and the Government are paying close attention to raising the level of economic management in all areas. Automated control systems and scientific organisation of labour are being introduced into all echelons and links of social production management. In October 1969, the CC of the CPSU and the USSR Council of Ministers adopted a decision on "Measures to Improve and Reduce the Costs of Management Apparatus". The implementation of this decision made it possible to substantially cut expenditure on the maintenance of the management apparatus. Work has begun on a radical recasting of the managerial structure to bring it in line with the requirements of the current technological revolution by introducing automated systems of production control. The structure of management organs in individual production sectors is being improved along with the style and methods of their work. The organisational restructuring of the management of the chemical, oil, coal and some other industries is bringing positive results.

The Ministry of Instrument-Making, Means of Automation and Control Systems is one of the pioneers of the introduction of automated control systems in this country. The Ministry staff analysed the potentials of 146 enterprises and discovered substantial reserves for boosting labour productivity and output. As a result of this work, plants and fac-

tories undertook additional pledges to increase sales and profits by 55 and 29 million rubles respectively.

The introduction of automated control systems in individual industries makes it possible, according to experts, to cut prime costs by an average of 6 per cent. Investments in the introduction of such systems are usually recouped within a year.

The 24th Congress of the CPSU paid close attention to the improvement of management techniques. The Directives of the 24th Congress of the CPSU for the Five-Year Economic Development Plan of the USSR for 1971-1975 outline a scientifically substantiated programme of measures to improve the work of ministries and other management bodies in individual industries.

In line with the Congress decisions, modern methods and equipment, including automated control systems, are to be used in managerial activities.

The development level and efficiency of the managerial system and the whole of social production depend on the quality of training of personnel, on their efficient placing and use. That is why the 24th Congress called attention to the need to improve the training and retraining facilities for all contingents of production management, including the top echelon.

A scientific approach to this matter is particularly important today. Such an approach is at the heart of the Leninist style of work. As early as during the first years of Soviet government, when the Communist Party experienced an acute shortage of highly trained personnel, and many leaders were "too prone to compensate (or imagine that we can compensate) our lack of knowledge by zeal, haste, etc.", the Party demanded a scientific approach to the job in hand.

Pointing to ways of improving the work of the Party and state apparatus, Lenin said: "we must at all costs set out ... that learning shall not remain a dead letter, or a fashionable catch-phrase (and we should admit in all frankness that this happens very often with us), that learning shall really become part of our very being, that it shall actually and fully become a constituent element of our social life."[1] This

[1] V. I. Lenin, *Collected Works*, Vol. 33, pp. 488-89.

exceedingly challenging task was successfully carried out by the Party of Lenin, and the ground was thus prepared for great achievements by the Soviet people in socialist construction and in adding to the country's national wealth.

HOW THE ORGANISATIONAL LEVEL OF THE ENTERPRISE AFFECTS THE UTILISATION OF ITS ECONOMIC POTENTIAL

Since the principal objective of production organisation and management is the more efficient use of the instruments of labour, the subjects of labour, and living labour itself, the organisational level of the enterprise directly affects the use of its economic potential. Measurement and analysis of the organisational level can answer the question: what latent resources does a factory or plant have for increasing its contribution to the country's national wealth? Consider, first, latent resources among the basic assets.

Under the new system of planning and economic incentives, the amount of profit is directly dependent on the available assets, which comprise basic assets and material circulating assets. Different enterprises use these assets differently. This, predictably enough, leads to different results.

A fuller use of the basic technological equipment yields the same results as an increase of its capacity and efficiency through modernisation. But modernisation calls for substantial capital investments and takes time. To use the available equipment more efficiently it is usually enough to improve production organisation, and this does not require substantial capital investments.

It is important, for instance, to bring the type and quantity of the available equipment into full correspondence with the type and volume of output. In this context, mechanical engineering and metalworking enterprises are guilty of particularly glaring imbalances. As a result of technological progress, the output of the mechanical engineering and metalworking industries undergoes changes and their product range expands. This inevitably leads to uneven workloads on equipment. Some types of equipment are overstretched, while others are used below capacity. The way out of the situation is to improve the planning of the production pro-

gramme, using principles of co-operation and specialisation. In practice, cases are not infrequent when one plant is short of some type of equipment while at another plant it is underemployed.

Soviet industry has gained a good deal of experience in the concentration and specialisation of production. Small-scale and isolated enterprises are merged to form larger production amalgamations which are well-placed to develop the specialisation of individual production sections and the organisation of broad-based co-operation among them. This usually results in a marked improvement of overall production efficiency.

Idle time of equipment and workers within shifts is often caused by inadequate material and technical supplies, by faults in the servicing of work benches, by poor labour organisation generally and by inadequate repair and maintenance services. Enterprises in heavy and light industries suffer from up to twenty different factors causing stoppages, most of which spring from poor production organisation.

To improve the utilisation of equipment and working time, it is essential to know the extent of the losses sustained. It is important to know why they occur, and to be able actively to regulate production. These tasks can be successfully solved with the help of an automated control and monitoring system. An automatic or semi-automatic progress-chasing machine records all instances of idle time of equipment. Simultaneously they are classified according to cause. The automatic supervisor records the idle time of each machine tool, automatic line, etc., and transmits the relevant information to the control centre or to the appropriate service. All those guilty of idle time are thus noticed; and this tends to induce workers to show more discipline and helps to eliminate flaws in organisation and management. Experience shows that such control systems are highly effective. Within the first two to four months of their operation idle time of equipment decreases by 40-60 per cent and the workers' output goes up by 8-12 per cent.

The automated control and monitoring of production is only one example of the automated management techniques now being developed and introduced at many Soviet enterprises. Automated control systems based on the use of infor-

mation and electronic-computer equipment will in the near future be introduced throughout the national economy. But even now, it is possible to introduce individual elements of these systems at practically all enterprises, without waiting for the comprehensive solution of all methodological, technical and other questions involved in the introduction of automated control.

Using experience gained and approved methods, each enterprise can introduce automated control and monitoring equipment, mechanise many calculating operations involved in planning labour and wages, work out optimum annual production plans, optimum plans of equipment workloads, etc.

Of great importance is the level of the organisational utilisation of circulating assets. Some enterprises often accumulate unnecessarily large stocks of raw materials, primary products, and semi-manufactures. Finished products not yet marketed, incomplete sets of products and components pile up and the permitted volume of work in progress is often exceeded. The volume of circulating assets in such cases is unjustifiably far in excess of the norms. As a rule, the unused part of the available circulating assets becomes frozen and contributes nothing to the enterprise's production activity.

Let us take an example showing clearly the importance of eliminating these and similar drawbacks which inhibit the efficient utilisation of the enterprise's economic potential. Let us assume that the assets of an enterprise amount to 1,000,000 rubles, of which basic assets account for 800,000 rubles and the circulating assets for 200,000 rubles. The coefficient of the use of fixed assets $C_{fa} = 0.35$ and the coefficient of the organisation of movement of subjects of labour $C_{sl} = 0.2$. The profit was 600,000 rubles a year and profitability—0.6. To obtain this profit the enterprise actually used $800 \times 0.35 = 280{,}000$ rubles of fixed assets and $200 \times 0.2 = 40{,}000$ rubles of circulating assets.

If the enterprise had used its assets fully to obtain a profit of 600,000 rubles, it would have needed only 320,000 rubles' worth of assets. In that case, each ruble of assets would have secured 1.88 rubles of profit instead of 0.6 rubles in fact. The assets profitability coefficient of 1.88 is the maximum for this

particular enterprise under the current system of prices, product range and other conditions. With productive assets estimated at 1,000,000 rubles, the enterprise could have obtained a profit of 1.88×1,000,000=1,880,000 rubles a year if it had used its assets fully under the same conditions, and not 600,000 rubles as in actual fact.

No production and no process of creating values is possible without the human element. The magnitude of the economic potential of an enterprise is dependent on the type of combined work force it has. Accordingly, the degree of the utilisation of economic potential is wholly dependent on the degree of the utilisation of this work force all round.

The labour of the production worker is characterised by three elements: duration (working time), complexity (quality), and speed, as manifested in intensity and ability.

Working time in the USSR is regulated by the Fundamentals of Labour Legislation. It varies for different categories of workers according to the character and special features of individual types of production, and is measured in hours of work.

Complexity of labour is associated with value as a category. According to Marx, more complex, skilled labour compared to average social labour is a manifestation of labour power, the formation of which calls for greater expenditures and more working time than does the formation of unskilled labour. That is why expenditures of skilled labour materialise in relatively higher values compared to simple, unskilled labour over the same period of time. As Marx put it, "in every process of creating value, the reduction of skilled labour to average social labour, *e.g.*, one day of skilled to x days of unskilled labour, is unavoidable".[1]

In assessing the combined work force of an enterprise from the standpoint of its capacity to create value, one must always take into account the employees' ability for work of a definite complexity. This ability, in the final count, is reflected in the qualifications of the workers. Soviet enterprises assess the skill of workers they employ according to a system of skill categories. The so-called wage coefficient,

[1] Marx, *Capital*, Vol. I, p. 192.

otherwise known as the hourly wage rate, is a relative indicator of workers' skills. If, for instance, the hourly wage rate of a fourth-category worker is 95 kopeks and that of a second-category worker 49 kopeks, this means that the qualifications of the first worker are 94 per cent higher than those of the second. The same applies to engineers, technicians and office workers. What is important here is that a worker of the fourth category performing a job of corresponding complexity creates, per unit of working time, 94 per cent more new value than a worker of the second category performing a job which belongs to the second category of complexity.

Let us now examine the third component of labour—speed, through which labour productivity is also realised. On the same type of work and using the same type of tools and equipment and the same techniques, different production workers spend different amounts of time on the operation involved. The reason is that they work with different intensity, some using superior methods of work with economy of movement, others without giving due care and affection to the job in hand.

The speed of labour is normally measured in terms of hourly output, or, alternatively, in relative terms based on the fulfilment by workers of their output quotas and time norms. If we take the fulfilment of output quotas by the best workers as equal to unity (assuming also that these workers stay within the limits of the normal labour intensity), we can gauge the performance of the other workers in relation to that of the former. For instance, assuming that all the workers of a production sector or unit fulfil 110 per cent of their average output quotas, while the best ones go as high as 135 per cent, then the work speed coefficient (C_s) for this particular sector is $C_s = \frac{110}{135} = 0.81$.

The potential capacity of production workers for work, and, consequently, for creating new value, is dependent on their numbers (N), the amount of working time (T_w), their skill as estimated on the basis of their average hourly wage rate (W_h) and on normal intensity of labour, which is estimated on the basis of the average progressive coefficient (C_{ap}) of fulfilment of output quotas and time norms. Math-

ematically, potential capacity for work can be expressed as the product of $NT_wW_hC_{ap}$.

The economic content of this value is the maximum possible annual wage (W_m), provided that the available working time has been used fully without idle time and hitches and the workers' qualifications have corresponded to the complexity of the work performed, and also provided that all the workers have fulfilled their output quotas on a par with their leading fellow workers.

Quite clearly, enterprises will be in a position to put their available resources to the best use when all types of fixed assets are used fully in terms of time and capacity, and provided the stocks of raw material and the volume of incomplete production do not exceed the approved and economically justified size, and the capacity of workers for work is used fully within the limits of the approved length of working day and normal permissible intensity of labour.

Soviet research has revealed a direct connection between better use of economic potential and such indices of economic efficiency as the growth of profits, rise in labour productivity, and an upward trend in the profitability of fixed assets. For instance, at some enterprises, an increase of 1 per cent in the coefficient of organisational level results in a growth of profits by 1.5-1.8 per cent, of labour productivity by 1-1.1 per cent, and of profitability of fixed assets by 1.2-1.5 per cent, while production costs decline by 0.2-0.4 per cent.

The economic potential of an enterprise is determined by its size, its equipment, the techniques used, the quality and structure of the main elements of production and, finally, by the current level of prices for its output. Needless to say, we must try to augment the economic potential of enterprises and industry as a whole by vigorous expansion and constant technological improvement. But it is equally important for the enterprise to seek to employ as fully as possible its latent reserves. The success of efforts in this area depends wholly on the level and quality of labour organisation, production and management.

ECONOMIC REFORM AND PRODUCTION EFFICIENCY. THE UNITY OF ECONOMIC AND MORAL INCENTIVES

Lenin attached exceptional importance to the provision of economic and moral inducements for better production results. Communism, he wrote, should be built "not directly relying on enthusiasm, but aided by the enthusiasm engendered by the great revolution, and on the basis of personal interest, personal incentive and business principles.... Personal incentive will step up production...".[1] Outstanding on-the-job performance should be rewarded by offering advantages in consumption. Lenin saw the unity of society's interests as a whole and those of individual production collectives and individual production workers as an inexhaustible source of economic growth.

The economic reform currently being implemented in this country is a living embodiment of Lenin's behests in the economic field. The reform is designed to strengthen the unity of interests of each worker, each enterprise and of society as a whole; to stimulate the initiative and interest of production collectives in stepping up technological progress, in using production resources more fully, and in boosting production efficiency in every way.

The basic principles of the economic reform were outlined at the plenary meeting of the CC CPSU in September 1965. The measures were primarily aimed at "bringing the system of planned management and economic administration fully in line with the requirements of the current stage of communist construction, at further developing the basic aspects and advantages of the socialist mode of production, and in this way accelerating the progress of the economy towards communism".

The task was to take as fully into account as possible the requirements imposed by the economic laws of socialism, to raise the scientific standard of planning and production management. It was essential to combine closely the system of centralised state administration with the encouragement of local initiative and activity on the part of production collectives to ensure the full exploitation of the advantages inherent in the socialist mode of production.

[1] V. I. Lenin, *Collected Works*, Vol. 33, pp. 58-59.

As A. N. Kosygin stated in one of his speeches: "The essence of the reform is to improve centralised planning and through this to encourage the initiative and interest of production collectives in making the most of the available production resources, in boosting production efficiency, and using a variety of economic inducements to commonise the interests of the individual worker, enterprise and society as a whole."

The economic reform is primarily designed to raise the scientific standards of the state planning of economic development. At the present stage, it is essential to ensure that production growth rates and the basic economic proportions are the most advantageous for ever fuller satisfaction of the constantly growing material and cultural requirements of Soviet people.

It is important to ensure that economic development plans, especially those relating to industry, make provision for the rapid introduction of the latest developments in science and engineering. The development plans themselves can meet the present-day requirements of social development, provided they are worked out with a view to the long-term prospects of scientific and technological progress.

The continuing expansion of the production apparatus and the increasing complexity of economic relations serve to increase the role of long-term planning. It is essential to ensure that not only the national economy as a whole, but also each individual enterprise has a clear idea of the prospects of future development. The 1971-75 five-year plan has been drawn up with this particular consideration in mind, and enterprises have duly been familiarised with its basic requirements.

Parallel with efforts to improve planning techniques and raise the technico-economic standards of plan substantiation, it is important to conduct a systematic study of the future prospects for the development of technology and the economy. This will make for greater stability of plans approved by the ministries and will eliminate the element of trial and error, thereby making it possible to integrate individual targets more closely.

In the Soviet Union with its huge distances, it is of particular importance to strike workable balance between territorial planning and planning for individual industries.

Finally, to improve planning and to make the economic substantiation of plans more reliable, it is intended to set up a system of scientifically based norms for the expenditure of material resources and living labour in social production. This will prepare the ground for boosting production efficiency within the individual branches of the economy.

Apart from improving planning techniques, another important aspect of the economic reform is being tackled, namely, a system of measures to increase the economic independence of enterprises and to stimulate the initiative of production. collectives for the achievement of the best results. The production enterprise, as a primary cell of the Soviet economy, must be freed from petty tutelage from above and equally from any interference prompted by purely subjective and administrative considerations.

Everything necessary for increasing the economic independence of enterprises in their day-to-day operations is available. This includes the increasing concentration of production, the expansion of direct links between enterprises, the growing quality of the training of production managers, the high level of political awareness and activity among the working people.

The plenary meeting of the CC CPSU of September 1965 outlined a system of measures to eliminate excessive regimentation of the economic activity of enterprises to provide the latter with everything they need to develop production, and ensure that they have the full use of their statutory rights.

One result of the economic reform is the strengthening and further development of the system of profit-and-loss operation, the provision of more incentives for higher output based on such economic categories of socialism as price, profitability, bonuses and credit. The active utilisation of economic levers is called upon to heighten the interest of production collectives in the achievement of maximum results at minimum cost, in the fullest possible use of the available productive resources and manpower.

Closely bound up with the system of profit-and-loss operation are measures to enhance the interest of factory and office workers in improving the overall results of the production activity of their enterprises. This makes for a more

solid basis of production democracy, increases the independence of enterprises, and enhances the initiative of the workers in economic construction.

The economic reform is the living embodiment of the Leninist principles of economic management. It develops and ensures the practical application under modern conditions of the principles of democratic centralism, the material interest of working people in higher efficiency of social production, and of scientific planning and economic substantiation in decision-making.

The measures outlined by the September 1965 plenary meeting of the CC of the CPSU represented a new stage in the further development of the Leninist principles of economic management. In particular, the granting of greater economic independence to enterprises entailed the revision of the targets approved by superior economic bodies. A twofold task was to be solved: on the one hand, it was essential to free enterprises from excessive regimentation and, on the other, to increase their interest in better performance.

A system of indices was needed which would make it possible to achieve the maximum results at the minimum cost.

A feature of the new system of indices is that the volume of marketed produce is made the most important consideration. This target has replaced the old target of gross output, which nevertheless continues to retain its significance.

The volume of marketed produce reflects not only the overall output, but also the extent to which the range of goods corresponds to public requirements. This indicator makes for a closer integration of production with consumption, ensuring a more telling influence of the consumers on production, and reflecting more faithfully the needs of society.

The role of the production profitability index has grown as a fuller consideration has been given to the economic laws of socialism, including the laws of commodity-money circulation.

That part of the profits which is retained by enterprises goes to establish the expansion fund, to finance capital investments, to build up circulating assets, to maintain research and development organisations, to set up incentives funds, and to meet various other needs of the production collectives.

The ratio of planned and actual profits coupled with the

production funds and circulating assets reflects the contribution of each enterprise to the achievement of the overall economic goal, i.e., to the effort to increase the country's net income, which is the source of extended reproduction and of better living standards. A continued growth of labour productivity and a progressive decline of production costs constitute the basis for improving the profitability of production.

Inasmuch as profit under socialism is built in by the state in the producer price it gives the society the right to expect that socialist enterprises will strive to achieve a sufficiently high level of economic performance. Profit reflects in some measure the contribution of each enterprise to the effort to cut the social costs of production and to increase the country's national income. On the other hand, profit is a source of additional remuneration of production collectives and each individual worker for achieving the best possible production results and is an essential factor for increasing the material interest of working people in the achievement of the maximum results on the minimum outlay. Profit therefore reflects the relationship between the production collective and society in general, in other words, the relationship between the part and the whole within the framework of the single socialist economic organism.

The economic effect of the performance of the individual enterprise, which its profit faithfully reflects, depends on a variety of production and economic factors, such as labour productivity, economical use of the material elements of production, the efficiency with which the enterprises use their resources, and so on. It is therefore assumed that society can best regulate the active utilisation of the above-mentioned factors through the medium of profit and profitability indices.

However, profit is not the only index, since it is bound up with the operation of objective laws and also with subjective factors of production. A case in point is the economic justification of producer prices which affects considerably profitability and the size of profits. Profits can be made by increasing the volume of marketed produce through an expansion of the work force, in other words, through an increase in the expenditure of living and past labour.

The effectiveness of economic incentives depends on how closely they are integrated with centralised planning and how effectively they ensure the unity of interests of individual enterprises and workers with those of society as a whole. A factor of paramount importance in this connection is the direct dependence of the amount of resources placed at the disposal of production collectives, on whether the basic indices of their operation show an upward trend or a decline. Deductions for economic incentives funds must increase by as much as the profit grows. This is one of the chief conditions for increasing the centralised revenue of society, for maintaining the proper balance between national income, consumption, accumulation, the income of working people, and the availability of commodity resources in the national economy as a whole.

Large-scale measures are being taken on a national basis to perfect methods of economic stimulation aimed at heightening the interest of production collectives in improving the technical and organisational aspects of production, the speedy introduction of the latest technological developments and in stimulating the growth of labour productivity. It is now recognised as imperative to integrate the system of financial inducements and other incentives with the work of drawing up five-year economic plans and their implementation.

The current five-year plan is the basis for switching production collectives over to a full profit-and-loss basis. The role and responsibility of ministries for planning is being increased, and interest is being stimulated in setting up funds of economic incentives in the light of tasks facing each branch of the economy.

The September (1965) plenary meeting of the CC of the CPSU provided a solid economic basis on which profits must be distributed among the production collectives and the rest of society. This basis is the size and volume of the production assets at the disposal of enterprises. That is why charges have been introduced for the use of production assets. Production assets have been, and continue to be, the property of the whole nation. They are allocated by society through the medium of authorised state bodies and are destined for use by production collectives. That is why the economic re-

sults of their activity must belong not only to the production collectives concerned, but to society as a whole. In this connection charges for the use of production assets are an important source out of which the state budget is increased. This category strengthens the links between the economic interests of the workers and those of society as a whole.

An important component of the new system of planning and economic incentives has been a series of measures aimed at strengthening the profit-and-loss system. These measures represent the further development and application to new historical conditions of Lenin's ideas to the effect that socialism must be built not only on the basis of revolutionary enthusiasm, but also on the material interest of working people in better production results.

Cost accounting as the principal method of planned management of socialist enterprises organically ties up the interests of the state with those of working people. This method is based on the comparison of production results with production costs, on the provision of material inducements for the achievement of better-than-average production results, and on strict supervision and control with the help of financial penalties for failure to achieve expected production performance. At the present stage, enterprises operating on a profit-and-loss basis and their managers must be made fully responsible for the economic results of their work. Lenin's ideas on cost accounting are finding practical application and are assuming ever increasing importance in the work to improve production relations and solve the tasks of communist construction.

The economic reform helps to create conditions under which enterprises receive a good deal of leeway and independence in their day-to-day operations and in the work to improve production performance. Enterprises create their own expansion funds on the basis of deductions from the profits made and also from a part of the depreciation allowances designed fully to restore the fixed production assets expended in the course of production.

At the same time, a gradual switch-over is being effected from the system whereby funds are allocated without repayment for the purposes of capital construction to a system of long-term credits. This serves to heighten the interest of

production managers in a more economical use of the available funds for capital construction and stimulates them to expand production at minimum cost in terms of capital investments, to bring into full production new facilities on time, and attain the designed capacities of new production facilities more quickly.

The use of production assets is of decisive importance for improving efficiency and overall economic performance. It is essential to stimulate the interest of enterprises in increasing output and in obtaining greater profits per ruble of the production assets allocated to them. To this end, the norms of charges for use of production assets are fixed on a long-term basis. Each enterprise operating normally is in a position to retain such profits, after deductions for the use of assets have been made for the state budget, as are necessary to set up incentives funds and to cover planned expenditures.

In this way, the size of incentives and expansion funds of enterprises is made directly dependent on how well and fully the production collectives concerned use the public resources placed at their disposal.

Production efficiency largely depends on how correctly and economically enterprises use the circulating assets at their disposal. Before the economic reform was introduced, any shortage of circulating assets was made good out of the state budget. Clearly, this militated against the principles of cost accounting. The economic reform served to heighten the responsibility of enterprises for the proper use of the circulating assets at their disposal. It was predicated on the abandonment of the system whereby circulating assets were made good out of the state budget without obligation to repay. Enterprises can now increase their circulating assets only out of the profits they make or out of the credit they obtain from the state for this purpose.

Apart from strengthening the economic independence of enterprises and stimulating their interest in the efficient use of the available production funds, the cost accounting principles in relations between different enterprises are also being strengthened and developed. This makes for stricter observance by enterprises of their delivery commitments and serves to increase their interest in fulfilling the terms of their

contracts. In this way, socialist production relations are being strengthened and improved.

An integral part within the framework of measures aimed at strengthening and developing the cost accounting system is a series of measures to increase the material interest of production collectives, each department at the enterprise and each individual worker in improving overall performance.

The task now is to orient production collectives towards the search for and mobilisation of means to raise production efficiency, to improve profitability and, finally, to increase their contribution to the country's national income.

The improvement of the system of cost accounting increases significantly the role of production collectives and consolidates economically the democratic principles underlying the system of socialist production management.

In view of the growing role of economic levers and commodity-money categories, in accordance with their new content, the problem of price formation has assumed increased importance. The CPSU Programme points out that prices must reflect the socially necessary expenditures of labour more faithfully and must be such as to ensure the recoupment of production and circulation expenses, and profits for each normally operating enterprise. The economic reform in this context represents a new step forward on the way towards the practical implementation of this objective as set by the Party Programme.

Under the system of cost accounting, correct price formation is imperative. Price is an essential expression of socially necessary production expenses.

The reform of wholesale prices conducted in 1967 and their adjustment in the subsequent period made it possible to gauge the level of profitability in industry with greater accuracy.[1] Most of the prices now in force are designed to ensure that each enterprise, after it has settled its debt to the

[1] To improve the system of pricing in late 1969 the Prices Committee under the State Planning Committee of the USSR was reorganised into a Union-Republican State Prices Committee under the USSR Council of Ministers with affiliated prices departments under the executive councils of regional (territorial) Soviets. The system of pricing bodies at rank-and-file enterprises is also being improved.

state, is able to set up its expansion and incentives funds by drawing on the profits made. The role of prices has likewise increased in solving questions related to the improvement of product quality, and this makes for better economic performance of enterprises.

The economic advisability of the decisions taken and their correspondence with the tasks of communist construction is a guarantee of high efficiency of social production.

An indissoluble link between administrative management and economic methods, the link between centralised planning and the increased independence of production collectives, amalgamations and local economic units, will make it possible to improve the standard of production management in the light of the current tasks of communist construction.

An essential component of the economic reform, apart from improved planning and the extensive use of economic methods of stimulating production, is a system of measures to improve the organisation and management of industrial production.

The improvement of organisational principles of guiding the national economy on the basis of the Leninist principle of democratic centralism is an objective necessity consequent upon the requirements imposed by the task of further developing the productive forces and socialist relations of production.

Modern industrial production requires close co-operation and co-ordination in managing technology, the economy, research and the production process proper. It is impossible to secure this co-ordination without the consistent application of the sectoral principle of management.

The solution of the key problems relating to the production, economic and technical aspects of the development of industrial enterprises through the medium of a single management body responsible for an individual industry makes it easier for production collectives to fulfil their production tasks.

In view of the need to combine centralised planning of the economy with the stimulation of initiative on the part of different Union republics and local economic bodies, with due allowances being made for the production and technical features of individual industries, industrial ministries have

been set up both in individual republics and on a country-wide basis.

The Communist Party's policy aimed at stimulating in every way the initiative of Union republics in economic and cultural construction, has found expression in granting the Union republics new rights in planning, capital construction, finance and wages.

The plenary meeting of the CC of the CPSU held in September 1965 paved the way for the introduction of cost accounting into the work of ministries. This has served to integrate the interests of the ministries with those of enterprises and of society as a whole.

The improvement of the economic methods of industrial management changes the nature of the relationships between enterprises and the bodies to which they are immediately responsible.

A characteristic feature of the new system of industrial management is wider authority for enterprises in the utilisation of the available circulating assets, depreciation allowances and receipts from the sale of surplus or obsolete plant and equipment and other materials.

The September plenary meeting of the CC introduced a number of changes into the system of industrial management. Enterprises, like production amalgamations and ministries, are now operating under new conditions. The functions of administrative industrial management have been combined with the increased role of cost accounting methods and economic incentives and with the expanded rights and increased initiative of individual enterprises and production amalgamations.

The measures outlined by the September 1965 plenary meeting of the CC of the CPSU to improve management substantially modified the managing of the material and technical supply system. Today, industrial ministries are the principal holders of the centrally allocated supplies, which they distribute to industrial consumers. The use of allocations is the direct responsibility of the central and territorial supply bodies.

The State Committee for Material and Technical Supplies under the USSR Council of Ministers has been set up to exercise general supervision over supply operations on a

country-wide scale. Apart from helping to realise the relevant plans, the new body is called upon to co-ordinate intersectoral deliveries of material and technical means and to see that deliveries are made strictly on schedule.

It is becoming increasingly important for supplier enterprises and consumers to maintain direct and reliable contacts.

The decision of the Soviet Government on measures for further improvements in material and technical supplies (April 1969) provided a programme of action for the further development of these relationships. Plans are well in hand to secure a switch-over to non-centralised supplying of consumers with individual types of materials (some building materials, rubber-technical goods, etc.). The supplies handled by the wholesale trading organisations are also expanding.

To strengthen economic and contractual discipline the Soviet Government has adopted a series of decisions on product deliveries and the material responsibility of enterprises and organisations for failure to fulfil targets or meet obligations and terms of delivery.

In this way, the new system of management increases the role of economic methods in guiding industry. It is based on the combination of unified state planning with enterprises working on the profit-and-loss principle, on the combination of the centralised management of individual branches in industry with initiative on the part of local economic bodies, and on the combination of one-man management with the enhanced role of individual production collectives. The new system is fully in tune with the requirements of Soviet economic development at the current stage, making it possible to use the advantages of the socialist mode of production more fully and efficiently.

The economic reform has proved its merit and economic viability. It has already enabled us to bring into production considerable reserves which have hitherto been lying dormant. As the economic reform develops and its mechanism improves in line with the decisions of the 24th Congress of the CPSU, its impact on production will increase.

The economic reform is a powerful stimulus for the growth of national wealth. It should be seen as a complete system of measures to improve socialist relations of production in every

possible way so as to bring them into conformity with the rapidly growing productive forces.

The economic reform is now past the preparatory stage. Exploratory work has been done, scientific discussions have been held, the principles and basic policies for the reform have been established, and various experiments have been set up, during the course of which a number of elements have been approved and developed.

The first practical stage of the reform got under way in 1965 and was marked by a gradual switch-over for enterprises in industry and transport to a new system of planning and economic incentives. As the first stage neared its close in 1970, the basic principles of the reform began to be applied by state farms, building and trading organisations, and enterprises in other branches of the economy. Between 1965 and 1970, a large-scale campaign was conducted to check on the effectiveness of the reform, identify weaknesses, and take measures to improve the standard of economic management in every sector of the country's economy.

The current five-year period has marked a new stage in the development of the reform. The principal objective of the present stage is the finalisation of a system of planning and economic incentives which will make it possible to boost the efficiency of production throughout the Soviet economy, to intensify production, and considerably to speed up the growth of labour productivity. It is essential to use all factors contributing to the intensive growth of production and, primarily, to ensure the earliest possible application to production of current scientific and technological achievements.

In its new stage, the economic reform will involve the whole of the national economy, including the services industry. The economic methods of management employed at the initial stage by large enterprises and their subdivisions, will now be used both by the higher units of social production (production amalgamations, central boards, ministries) and by small-scale production units down to the work-bench. The further development of the reform will eventually produce a comprehensive and stable system for mobilising not only the reserves on the surface, but also those not immediately observable, in order to stimulate the growth of the country's national wealth.

The further development of the reform calls for continued improvement in planning and management techniques throughout the national economy, for improving the work of managements, economists and engineers, and for perfecting production organisation and methods and style of work.

During the first stage (1965-70) the new system of planning and economic incentives had already demonstrated the considerable opportunities it offered for the fuller exploitation of the advantages of the socialist mode of production. In particular, the reform made it possible to obtain a better balance in the development of the national economy, to improve production efficiency, and to accelerate economic growth rates generally. The country's national income, as used for consumption and accumulation, increased from 190,500 million rubles in 1965 to 266,300 million in 1970. During the Eighth Five-Year Plan, it grew 41 per cent on average, while in the preceding five-year period (1961-65) it increased by 37 per cent. Standards of living showed a higher rate of improvement, and the ground was prepared for the more efficient and rational use of the material and manpower resources available.

Experience shows that whenever a close link is maintained between economic incentives and quality characteristics of production performance labour productivity and profitability of production grow vigorously. For example, the Dynamo Works in Moscow introduced a procedure whereby each machine-tool operator was given an assignment for five years estimated in terms of quota-hours on the basis of the planned growth of output, with due allowance being made for the level of output already achieved. Those operators who fulfil and overfulfil their output quotas receive monthly bonuses. The bonus schemes for foremen and rank-and-file workers are closely integrated. The foreman gets a bonus, provided that the production sector he is in charge of fulfils the plan, and this depends on the performance of the individual workers.

At the synthetic fibre complex in the town of Klin the management has introduced a system under which bonuses for engineering and technical personnel are cut if the actual labour expenditures exceed the approved limits. This makes the engineers and technicians show a greater sense of respon-

sibility for efficient production and labour organisation and stimulates them to look for latent reserves in order to improve productivity.

The measures carried out to bring the forms and methods of economic management into line with the requirements of economic development at the present stage have had a beneficial effect on the relations of production. These measures have helped to encourage a higher level of activity and initiative on the part of managerial personnel and have helped to involve rank-and-file workers in efforts to solve economic problems. Under the new system of economic management, the down-turn in the output-to-asset ratio has been checked, and industrial enterprises in the Russian Federation have been able to raise it by 12 per cent during the Eighth Five-Year Plan. The socialist system of planning is undergoing constant improvement and refinement aimed at bringing it into line with the requirements of social and economic progress.

Speaking at the 24th Congress of the CPSU, A. N. Kosygin stated: "At the same time, in the light of experience it became clear which aspects of the economic reform required further elaboration and development. The methods of planning and stimulation, the criteria for evaluating the activity of enterprises and amalgamations, should evidently be further improved in order to increase the impact of the reform on speedier scientific and technological progress, better quality of products, higher labour productivity and the greater interest of enterprises, amalgamations and ministries in higher plan assignments. This, at present, is the main thing."[1]

The mechanism operating during the first stage of the economic reform did not always make production collectives show concern for intensifying production. To improve the new system of planning and economic incentives, a good deal of experimental work has been conducted in the recent period. The experience gained clearly indicates the need for linking up the mechanism of the economic reform with labour productivity, prime cost and product quality.

To this end, the Directives of the 24th Congress of the CPSU provide for stimulating the interest of enterprises in

[1] *24th Congress of the CPSU*, p. 179.

stepping up the output of essential products in great demand.

Alongside efforts to improve the overall system of setting up incentives funds, it is no less important to use these funds rationally on the basis of well-regulated and efficient factory management. In recent years a good deal of progress has been made in this area. The system of profit-and-loss operation is now being applied not only by the production sectors proper, but also by the managerial services and departments of a factory. Experiments are under way to try out individual operation on a profit-and-loss basis. This promises considerable economy of material and labour expenditure at the individual work-bench. It is essential that this type of work should become integral to the activity of each production collective.

Currently, the economic incentives fund amounts to 10-15 per cent of the total wage fund. It is therefore necessary to improve the forms and systems of the basic payment for work done and to strengthen the links between it and profit-and-loss finance, especially with such indices as labour productivity, prime cost and product quality. Apart from using the piece-rate wage scheme, under which output depends largely on the individual and collective efforts of the workers, it is advisable to use its elements more and more under the time-rate system. This will make it possible to ensure that workers, engineers, technicians and office employees on time rates are paid wages and salaries which will reflect the actual amount of work done more faithfully.

It is equally important to use bonus schemes as purposefully as they have been designed: as a reward for greater output, for material resources saved and for better product quality. Not infrequently, bonuses are paid on the basis of a purely automatic addition to wages. Sometimes the bonus system is complicated to a point where workers have difficulty in understanding why they get their bonuses. Wage systems must be simple and reasonably flexible. To this end, it is important to involve the workers themselves in elaborating bonus schemes and to make the details and terms more widely known to all members of the production collective.

Special attention should be paid to the question of bonus schemes for top economic executives and specialists. In the

key industries, it has been standard practice to make bonuses for this category of workers dependent on the growth of labour productivity, reduction in prime cost, and higher product quality.

The December 1969 plenary meeting of the CC of the CPSU and, subsequently, the 24th Congress, called attention to the importance of fostering in collectives a greater sense of responsibility for production results. This formulation of the problem has a direct bearing on relations between enterprises which are being built on business agreements. Cases are not infrequent when infringements of such agreements lead to irregularities in the smooth operation of the enterprises, with the inevitable consequences. That is why the workers at many enterprises take the view that severer penalties must be introduced for losses in social production because of failure to honour agreements and for other reasons, such as spoilage, failure to fulfil output quotas, absenteeism, and violations of production discipline. Serious consideration should be given to suggestions in the press that salary cuts should be imposed on top economic and technical managers responsible for any kind of economic loss. To tighten up public control over the work of top production managers and others, it is essential to hold examinations of top managers and engineers to prove their continued proficiency. These examinations should be attended by representatives of the general public.

As is laid down in the Directives of the 24th Congress of the CPSU, "*State discipline* in all sectors of the national economy *shall be consolidated* in every way. Socialist legality shall be strictly observed in economic relationships. All economic executives shall have greater responsibility for the timely fulfilment of the set plans and assignments, for the quality of goods, careful and rational spending of money and material resources, the proper use of equipment and raw materials, the fulfilment at the fixed dates of all deliveries by way of industrial co-operation and the observance of production discipline".[1]

The management of the Moscow Thermal Automatic Equipment Works have decided to deprive of bonuses and

[1] *24th Congress of the CPSU*, p. 321.

other financial inducements those who are guilty of unjustified absence from work, even if only for one day in the year. Similarly, bonuses are denied those who quit work at the factory without good reason even if only one day before the end of the year. As a result, absenteeism has declined by 40 per cent within a year, and losses of working time arising from absenteeism have been reduced to one-third.

The Excavator-Manufacturing Plant in the city of Kalinin has a system whereby those guilty of absenteeism once a year have their bonuses halved, while those guilty of repeated absenteeism receive no bonuses at all. Number One Watch-Making Factory in Moscow has a system whereby detailed records are kept of absenteeism history for individual workers.

Bonuses have become a vital means of improving the speed of labour. At Number Two Watch-Making Factory in Moscow, if a worker overfulfils his output quota to the same extent as many others, that is to say, by the average percentage, he receives an increase of 10 per cent in bonuses on the basis of the end-of-year totals. If he overfulfils his output quota by more than the average, the bonus increase goes up 20 per cent.

Many enterprises have been making successful use of material interest for saving past labour and stimulating an attitude of care in the use of public property. The management of the Moscow Hard Alloys Complex, for instance, has introduced a bonus scheme to encourage efforts aimed at cutting down on waste. At this factory, press operators in some shops get financial inducements if they reduce tailings of tungsten and cobalt. As a result, losses of raw material in a year have been cut by 6-7 per cent, and output per press each shift has gone up by an average of 12 per cent.

The nation-wide discussion of the address by the CC of the CPSU, the USSR Council of Ministers, the All-Union Central Council of Trade Unions and the CC of the Komsomol "On Ways of Improving the Utilisation of Production Reserves and Intensifying the Economy Drive", revealed the determination of the industrial labour force to mobilise every type of reserve to boost labour productivity. The Communist Party and the Government are working to ensure that the efforts of the working masses are backed up by superior or-

ganisation. A scientifically substantiated system of measuring the standard of organisation would help in achieving this goal. With this system it would be possible to assess the impact of the standard of organisation on labour productivity and other aspects of economic performance, and also to assess the effectiveness of incentives for better labour organisation and superior systems of production and management. The experiments to verify the viability of this system's methodological principles, as evolved by the Economics Institute under the Kazakhstan Academy of Sciences, have produced promising results. This system makes it possible to apply economic, administrative and psychological methods in order to obtain the highly efficient use of every minute of working time, every hour of machine-tool operation, every gram of raw material and fuel.

Psychological incentives for more productive labour and for further increasing the country's national wealth are inherent in the socialist system, under which the working people are not only the agent of production, but also its collective owner. Work for one's own benefit and for that of society gives rise to incentives for expanding national wealth which are inconceivable under capitalism.

Only under conditions of genuinely free socialist labour can there be such an incentive as the direct and immediate interest of the rank-and-file workers in the best production results.

The Soviet Communist Party, in directing the nation-wide efforts towards achieving the higher stage of communism, ensures that the role of the production collective in this work is systematically enhanced.

The plenary meeting of the CC of the CPSU in September 1965 envisaged wide-ranging measures to expand the economic independence of concerns, to encourage their initiative and enterprise, and to increase the role of production collectives. As a result of the decisions taken, a special statute on the state socialist production enterprise was later adopted. This document points out that the production enterprise is the primary cell of social production in the Soviet Union, being not only a technical and economic unit which carries production and financial plans into effect, but also a complex social organism, a workers' collective, the interests of which

are indissolubly bound up with those of the national economy as a whole.

On the basis of their own experience, the Party organisations of many industrial enterprises have fully realised that material incentives must be made to exert a powerful psychological impact. Examples of this include the "extra pay packet" and other types of bonus. At such enterprises, moral incentives, in their turn, are backed up by material encouragement.

Under the current economic reform, as was noted at the 24th Party Congress, it is of paramount importance to improve the system of moral incentives, to strengthen labour discipline and to foster an attitude to labour as a patriotic duty, to heighten a sense of personal responsibility for the way things run at the enterprise, building site, or institution, and to use fully the opportunities offered by the new system of economic incentives for better production.

Speaking at the 24th Congress of the CPSU, L. I. Brezhnev said: "It is our duty to translate Lenin's behests still more fully into life and get all the workers, collective farmers and intellectuals to become conscious fighters for the implementation of the Party's economic policy, to act like statesmen and fully display their abilities, initiative and economic acumen."[1]

The current scientific and technological revolution is making increasingly severe demands on personnel at all levels. Aware of this, Party organisations work untiringly to ensure that every employee implements Lenin's behest: "Keep regular and honest accounts of money, manage economically, do not be lazy, do not steal, observe the strictest labour discipline."[2] Lenin repeatedly stressed the vital importance of socialist frugality and a conscientious and careful attitude to socialist property. The educational work conducted by the Communist Party has an important role to play in ensuring that this behest of Lenin's is carried into effect. Work to foster thrift should go hand in hand with labour education.

The Fundamentals of Labour Legislation of the USSR and the Union Republics, adopted by the Supreme Soviet of the

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[1] *24th Congress of the CPSU*, pp. 85-86.

[2] V. I. Lenin, *Collected Works*, Vol. 27, p. 243.

USSR in July 1970, furnish guidelines for strengthening and developing the communist attitude to work. This legislation reflects the great social gains of the Soviet people and graphically formulates the standards of relationships between those working in the national economy. This unified labour legislation covering the whole of the USSR has incorporated the basic legislative principles governing labour and brought them into line with the current demands and conditions of social production and scientific and technological progress, with a steady improvement in the living and cultural standards of the Soviet people, and with the further development of socialist democracy. This legislation is a vital factor in the growth of labour productivity.

Socialist emulation, the guidelines for the development of which were brilliantly outlined by Lenin in the early years of Soviet government, is an important means of communist education and of accelerating the growth of labour productivity

In 1919, on the initiative of the Communists and sympathisers among the personnel of the Moscow-Kazan railway who had decided to hold communist subbotniks to speed up the country's economic rehabilitation, a country-wide movement began to develop for the making of the utmost contribution to the economic progress of the young Soviet Republic.

In his "A Great Beginning", Lenin gave a profound analysis and generalisation of the experience of this movement. He wrote that communist subbotniks demonstrated "the conscious and voluntary initiative of the workers ... in creating socialist conditions of economy and life". The new attitude to labour that subbotniks symbolised was qualified by Lenin as "the *actual* beginning of *communism*". "Communism," he wrote, "is the higher productivity of labour—compared with that existing under capitalism—of voluntary, class-conscious and united workers employing advanced techniques."[1]

Socialist emulation came into being shortly after the victory of the October Socialist Revolution of 1917, and in

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[1] V. I. Lenin, *Collected Works*, Vol. 29, pp. 423, 427.

subsequent years spread to all areas of social life in this country. In 1971, socialist emulation involved over 70 million people; of this total, 40 million took part in the movement for communist labour.

Socialist emulation is a powerful motive force behind the development of Soviet society, exerting a great influence on economic progress and the growth of national wealth, on the improvement of social relations and on the political development of the Soviet society, and also on the aesthetic education of the working people.

In socialist society emulation is called upon to perform the following basic functions: to develop the communist attitude to labour among the workers and improve the production relations of socialism; to introduce scientific organisation of labour, production and management, to involve broad masses of working people in the job of running society; to develop political and creative activity among workers, collective farmers and the intelligentsia; to foster the spirit of collectivism, publicise the socialist way of life and to help in moulding the men and women of the communist society.

The new prospects for the economic and cultural progress of the Soviet Union, as outlined by the 24th Congress of the CPSU, have a direct bearing on the development of socialist emulation. During the current five-year period, socialist emulation will accelerate scientific and technological progress, stimulate the spirit of socialist collectivism, and raise the efficiency of social production. These directions are the principal ones in developing the country's productive forces and relations of production for the achievement of the best results in every area of endeavour by the Soviet people.

The CPSU, in promoting socialist emulation and improving its organisational structure, aims at encouraging within every production collective initiative and an uncompromising attitude to incompetence and stagnation. Particular attention is being given to the further development of democratic principles, to the elimination of formalistic attitudes, to raising the role of rank-and-file employees, to the consistent application of Leninist principles: public discussion and comparison of results, provision of facilities for verifying experience in practice and for backing up outstanding on-the-job performance with the appropriate material and psychological

incentives. Socialist emulation has become a truly communist method of building the new society.

This was graphically demonstrated by the mass movement for communist labour during the nation-wide emulation drive to mark the centenary of Lenin's birth. During this emulation campaign, Maria Ivannikova, a textile worker at the Frunze Textile Mills, came forward with an appeal to work on April 22, 1970, the day of the anniversary, using economised raw materials. Many production workers across the country responded to this appeal. Maria Ivannikova herself fulfilled her output plan for 4 years and 3 months in 3 years and 11 months, producing a total of 29,620 metres of fabric over and above the planned figure. She followed it up by fulfilling her 1969 target ahead of schedule and producing 9,680 metres of top-quality fabric over and above the plan. Later, Ivannikova reviewed the production obligations she had previously assumed and decided to fulfil her target for the five-year plan by July 25, 1970, producing an additional 48,000 metres of fabric. Ivannikova successfully reached this increased target.

Following her example, workers, engineers, technicians and others all over the country began looking for ways of reducing prime costs to increase the overall profitability of production. Considerable success was scored during this emulation drive, as was shown by the production results of enterprises which worked on April 11, 1970, drawing on economised resources and contributing towards the fulfilment of the targets under the five-year plan ahead of schedule. The emulation drive preceding the celebrations to mark the centenary of Lenin's birth resulted in substantial economies of living and past labour, which contributed to the expansion of the country's wealth. April 22, 1970, the day of the centenary, as well as the nation-wide Communist Subbotnik, April 11, 1970, that preceded it, provided a vivid demonstration of the effectiveness of the initiative of the masses, of the creative potential of socialism and of the mobilising force of Lenin's ideas.

Of significance in this context are the "spot checks on worker consciousness" now being made at building sites in Moscow Region. Here the workers themselves check up on the results and performance of one another. On the basis

of comradely mutual assistance they help those who lag behind to catch up with the front-ranking workers and in so doing achieve a high standard of performance.

A programme of action to guide production collectives in their day-to-day activities was provided by the decisions of the December 1969 plenary meeting of the CC of the CPSU and the joint address launched by the CC of the CPSU, the USSR Council of Ministers, the All-Union Central Council of Trade Unions and the CC of the Komsomol "On Ways of Improving the Utilisation of Production Reserves and Intensifying the Economy Drive". The nation-wide discussion of the address developed into an exhaustive review of the available production reserves. The organisational and political work which resulted from the discussion of the address played an important role in achieving success during the socialist emulation campaign to mark the centenary of Lenin's birth.

Workers at the Lyubertsy Agricultural Machinery Plant in Moscow Region made a total of 500 suggestions during discussions of the above-mentioned address. The implementation of these suggestions in production is expected to save an additional one million rubles. Workers at this factory, in common with thousands of their fellow workers across the country, are showing a genuine concern to step up the growth of national wealth, to improve labour productivity and product quality, and to cut production costs.

The emulation drive which was conducted to mark the 24th Congress of the CPSU produced a far-ranging programme of future work. The people of Moscow outlined a series of measures to intensify production and raise efficiency. As a result, the 1970 plan for sales and output was fulfilled by December 25, while individual annual targets were reached by December 1. The mechanisation and automation of production, coupled with the introduction of automated control systems, made it possible to release a total of about 9,000 production workers and office employees, and to commence the production of 4,300 new styles and models of clothing, knitwear and footwear. The planned target for growth rates of output was overfulfilled by 40 per cent. The entire increase in output was obtained through higher labour productivity.

Moscow enterprises fulfilled the five-year plan (1966-70) for volume of gross output by November 7, 1970. Over the five years, a total of 100,000 tons of steel and rolled stock, 4,400 automobiles, 65 million rubles' worth of instruments, automation equipment and computer hardware, over 40 million square metres of textiles, 1,800,000 pairs of footwear, and 3,300,000 pieces of knitwear were produced over and above the plan.

Enterprises held meetings at which production workers reported on the fulfilment of their undertakings. Workers at the Moscow Locomotive Repair Factory instituted a public review of efforts to boost labour efficiency on the shop floor. This initiative elicited an enthusiastic response from many industrial enterprises in the country.

At the Dynamo Electrical Engineering Works in Moscow, the volume of sales over four years increased by 24 per cent and labour productivity by 37 per cent, with workers' productivity showing an increase of 45 per cent. This was achieved thanks to the improvement in technology, labour organisation and the use of highly effective schemes of material incentives introduced at the factory. The work force over this period shrank by 11.9 per cent.

The experience gained in the development of socialist emulation indicates that the best results are achieved where the activity of the production collective is guided according to plan with a view to including the whole range of production operations in the process. An example of this kind of organisation is provided by the Likhachov Automobile Works in Moscow. As early as the Eighth Five-Year Plan, the management adopted a policy of consistent and vigorous technological improvement. Great attention is paid to measures to increase technical standards with the emphasis on basic production, but without neglecting the subsidiary operations, notably materials handling and warehousing work. Simultaneously with measures to raise the technical standards of production by means of mechanisation and automation, efforts are being made to streamline production organisation and improve the working and living conditions of the employees. The result has been that some 15,000 employees fulfilled their individual targets in the final year

of the Eighth Five-Year Plan ahead of schedule, by December 1, 1970.

Following the example of front-ranking enterprises, many production collectives put emphasis in their emulation campaigns on accelerating technological progress, improving production organisation, making better use of the fixed and circulating assets, saving working time, and improving product quality. This made it possible to achieve optimum results on minimum outlay, which is an effective way of adding to the country's national wealth.

In the eighth five-year period, labour productivity at industrial enterprises in Moscow went up by 38 per cent. Two-thirds of this increase were obtained through technological improvements, and the rest through better production organisation. The profits of Moscow's enterprises showed an increase of 80 per cent. The target figure for profit was exceeded by 700 million rubles. Average annual growth rates of output and labour productivity were 50 per cent higher than in the preceding five-year period. The increase in output was accompanied by a reduction in the industrial work force. Similar results were obtained all over the Soviet Union.

The workers at the Fuel Equipment Plant in the town of Noginsk, Moscow Region, have come forward with an original and valuable proposition. They have suggested that each engineer and technician should have his own individual creative plan. This has made it possible to concentrate the efforts of production technologists, designers, economists, foremen, shop managers and department chiefs on the key aspects of scientific and technological progress and production expansion as a whole.

Within 18 months, the Noginsk Fuel Equipment Plant was able to introduce into production a total of 450 such individual plans. This resulted in releasing over 230 workers and in transferring more than 160 workers from manual to mechanised jobs. The implementation of the individual plans alone enabled the plant to put overall productivity up by 4.6 per cent. This in turn helped to save 4,000,000 rubles.

The 24th Congress of the CPSU was marked by large-scale political and production enthusiasm throughout the country.

The results of socialist emulation are in evidence everywhere. In the country as a whole, growth rates of sales and labour productivity were higher in 1970 than in 1969. There has been a drastic reduction in the number of enterprises that failed to fulfil their key targets, and there has been a marked improvement in product quality and overall profitability of enterprises.

The celebrations to mark the 50th anniversary of the founding of the USSR set off a new powerful socialist emulation drive. In the course of this emulation a variety of new initiatives emerged in the country's social, political and labour activities. The workers of many industrial enterprises, the people of many towns, regions and republics fulfilled the targets of 1972 ahead of schedule by increasing labour productivity, by commissioning new production capacities and thereby putting out additional goods over and above plan.

The impressive performance of the winners of the socialist emulation drive earned them government decorations. Over 3,000 enterprises were awarded Jubilee Badges of Honour by the CC of the CPSU, Presidium of the Supreme Soviet of the USSR, the USSR Council of Ministers and the All-Union Central Council of Trade Unions.

The prospects for the development of socialist economy and culture outlined by the 24th Congress of the CPSU are a source of inspiration for the entire Soviet people in their work to improve the quality of life for one and all.

Communist abundance is unthinkable without socialist thrift and economical use of available resources, without raising the efficiency of social production in every way. Speaking at the meeting to mark the 50th anniversary of the USSR, L. I. Brezhnev said: "The central task today is to effect a radical change of orientation, to switch the accent to intensive methods of economic management and thereby achieve a considerable rise of efficiency in the economy. The thing here is that economic growth should be increasingly fostered by an enhancement of labour productivity and an acceleration of scientific and technological progress, by the fuller utilisation of operating production capacities, by increasing the return on every ruble invested in the economy, on every ton of utilised metal, fuel, cement and fertiliser.

"This is the substance of the switch in economic policy as required by the 24th Congress of the Party."[1]

All over the Soviet Union, emulation drives are under way to fulfil the Congress's targets ahead of schedule. Industrial workers, after fulfilling the targets for the first years of the current five-year plan, continue to maintain high standards of production activity. Agricultural workers are following suit. Intense creative work is being done to build up the material and technical basis of communist society, and extra production reserves are being mobilised for the improvement of production efficiency.

The people of Moscow are in the lead. They have taken the initiative to fulfil the targets of the Ninth Five-Year Plan ahead of schedule, and have pledged themselves to obtain the whole of the increase in industrial output through higher labour productivity.

A high level of production efficiency is the basis for upgrading socialist economic management in the current five-year plan. High production efficiency can be achieved, provided emulation in the early introduction of advanced technologies and methods assumes a truly national scope. It is essential in this context to keep improving the organisational level of production and to intensify the current economy drive.

Socialist emulation is proceeding apace as the economic reform gains momentum. This offers excellent opportunities for encouraging individual workers and collectives to add more to the country's national wealth. It is essential that the proper criteria should be applied in assessing the contribution of each worker to the common cause of advancing the country's economic might, and that material and moral incentives should be used as fully as possible.

L. I. Brezhnev in his report *Lenin's Cause Lives On and Triumphs* said: "It is well known that for our society the fulfilment of the economic tasks is not an end in itself but a means. The main purpose and the main meaning of the policy which our party has been consistently implementing is to create for the working man the most favourable con-

[1] L. I. Brezhnev, *The Fiftieth Anniversary of the USSR*, Moscow, 1972, p. 72.

ditions for work, study, leisure and the development and best application of his abilities."[1]

Under socialism, wealth is in the hands of the working people themselves. They are living today on the results of yesterday's work; and how they live tomorrow depends on their efforts today. The Soviet people are working to bring nearer the day when communism will become reality, with its slogan "From each according to his ability, to each according to his needs". The putting into effect of this basic principle of communism calls for the utmost thrift, a frugal attitude to national wealth and, most of all, for the highest possible labour productivity.

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[1] L. I. Brezhnev, *Lenin's Cause Lives On and Triumphs*, Moscow, 1970, p. 39.

CHAPTER V

SOCIALIST WEALTH, FREE TIME AND PERSONALITY DEVELOPMENT

The development of production and adding to social wealth are not ends in themselves. Material production under socialism has as its aim to meet the social and individual needs of working people. The improvement of the efficiency of socialist production and adding to national wealth are means of achieving the ever fuller satisfaction of the constantly growing material and cultural requirements of the population.

Apart from the full satisfaction of requirements, the individual also needs free time for his physical and mental development and for the creative application of his abilities and talents. Free time and its sensible use are indispensable for the all-round development of the personality. In a society developing along communist lines, the ultimate goal of increasing wealth is the provision of adequate free time for all the working people, and also the provision of facilities ensuring its effective use for the all-round development of all those concerned. Free time can therefore be regarded as the highest criterion of production efficiency and of the progressive nature of a socio-economic system. Marx, Engels and Lenin attached prime importance to an analysis of the capitalist mode of production. At the same time, as was stressed in the "Theses for the 150th Anniversary of the Birth of Marx", thanks to his economic theory and materialistic outlook on history, coupled with a careful study of time categories bearing on the processes of production, exchange and reproduction, Karl Marx also devoted attention to the

category of free time, by which he meant "... time which will not be absorbed in direct productive labour, but will be available for enjoyment, for leisure, thus giving scope for free activity and development".[1]

If labour time is "the creative substance of wealth and the measure of the *cost* of its production", then "free time, *disposable time*, is wealth itself".[2]

Free time should not be taken to mean time given over to idling and loafing about. Incidentally, this is how some bourgeois sociologists seem to see it. To them, leisure time is synonymous with boredom and ennui. Dreading the wholesale introduction of automation, which under capitalism creates unemployment, they predict that total automation will usher in "an era of general idleness and inaction", and this will eventually lead to the fall of civilisation.

An equally grievous error is committed by those who identify free time with the whole of off-work time. The proponents of this theory argue that the life of the individual consists solely of work and rest. This approach blurs the essential difference between capitalism and socialism, and blocks the possibility of studying and improving social life, of accelerating the all-round development of the personality under socialism.

In his analysis of the limits of working day, Marx singled out free time. According to him, free time is a space and measure of active free vital activity, determined not by man's daily material and natural and physiological requirements, but by the development and application of his spiritual and physical capabilities. Free time thus emerges as a generalised criterion of time economy as a whole and as an important index of the many-sidedness of man's activities and of his living standards. Free time, like labour time, is not static or immutable. The availability of free time to different social groups, the amount and structure of this time, are largely determined by the existing socio-economic system of society. Free time also reflects the characteristic features of this or that system of production and other social relations. It is this that makes free time a basic socio-economic category.

[1] Marx, *Theories of Surplus-Value*, Part III, p. 256.
[2] Ibid., p. 257.

If it is true that labour time reflects the essence and different aspects of economic relations in the production process, then it is also true that free time is a concentrated expression of these relations outside the production process. In combination with other time parameters characterising human activity outside production, free time characterises the living conditions of the population, its needs, the reproduction of its physical and spiritual existence, and the development level of all aspects of its activity, including social, and the tendencies in that activity.

Research conducted by Soviet scientists has established that free time includes all time expenditure on the following activities:

the discharge of state duties beyond the call of professional responsibility and the performance of services for the community,

creative activity,
the upbringing of children,
self-education and study,
sport and physical culture,
amateur pursuits,
rest and entertainment.

As this list shows, free time as a socio-economic category has many different functions.[1] Above all, it provides scope for public work, for state and social activity. Of equal importance are creative activity, bringing up the new generation, intellectual pursuits, physical culture and sport, and changes from one type of activity to another.

Free time is viewed as a universal category, since in any society a certain amount of time goes to meet intellectual and social requirements and also to improve physical fitness. But

[1] Free time, as defined here, reflects the Marxist-Leninist concept of freedom. Bourgeois sociologists take a different approach. Even such eminent sociologists as G. Friedmann and G. Dumazidier (France), and R. Bauer and J. Robinson (USA) separate free time from social and political activity and identify it with leisure time. The bourgeois sociology of leisure is essentially aimed at finding ways of diverting the attention of working people from social problems and political activity, from development and active use of the intellect. According to bourgeois sociologists, the ideal type of leisure is provided by clubs set up under the aegis of the church, etc.

this universality finds its specific manifestation in each actual socio-economic formation and even at different stages of its development.

"A slave must work and sleep," wrote Seneca. Later, the feudal lords applied the same formula to serfs. In bourgeois society an updated version of the same formula is practised with respect to the proletarian masses. In tsarist Russia up to the twentieth century labour time was regulated by Peter the Great's edict of April 5, 1722, under which the working day began at 4.30 a.m. and ended at 7 p.m. Under all exploiter systems, free time in the strict sense of the term was monopolised by the prosperous levels of society.

Marx wrote: "The working class, even when not directly engaged in the labour-process, is just as much an appendage of capital as the ordinary instruments of labour. Even its individual consumption is, within certain limits, a mere factor in the process of production."[1] Under capitalism, the working class is only its own master when it struggles for emancipation or when it prepares for this struggle.

In their struggle against the exploiters, the working people of capitalist countries have succeeded in shortening the working day. In industrialised countries, technological progress, by invading everyday life, has cut the amount of time spent on housework and domestic chores. This accounts for a formal increase in the amount of free time available to the working population. But since, under capitalism, the object of production is the capitalist appropriation of the results of surplus labour time, there has been no change in the tendency to "create disposable time, on the one hand, and to convert it into surplus-labour on the other".[2] The bourgeoisie will do anything to place scientific, technological, and social progress at the service of capital. The bourgeoisie is seeking to organise the disposable time of working people in such a way as to divert them as far as possible from class struggle and to restore enough of their capacity for work so as to continue their intensive efforts to create surplus value. For this reason, the increase in free time available to individual sections of society employed by capitalist owners certainly

[1] Marx, *Capital*, Vol. I, p. 538.
[2] Marx, *Grundrisse der Kritik der Politischen Ökonomie*, S. 596.

does not mean that Marx's statement is out of date; it loses its validity with the victory of the socialist revolution.

Socialism radically transforms the position of the working people, the social character of labour and the way of life. The increasing satisfaction of the material and spiritual needs of working people as social production expands becomes a basic objective of social progress, as does the comprehensive development of the individual. In liberating the working people from exploitation and oppression, in affirming the universality of labour, socialism introduces the right of one and all to free time.

Under socialism, where working people regulate their production activity in their own interests and where they carry it on in conditions which are more congruent with human dignity, the increase in free time is a consciously sought-for objective of society. *The higher the intensity of producing the direct social product, the greater are the opportunities for extending the limits of free time and the more even is the distribution of free time among members of society. This is an objective law governing the progress of society towards communism.* In this situation, the saving of working time contributes directly to increasing the amount of free time.

The increase in free time, its even distribution among the social and demographic groups of the population, the efficient use of the talents and abilities of the individual for comprehensive development—these are the major goals of the communist parties and governments of the socialist countries. Under socialism, where free time becomes the property of the working people, its functions are constantly expanding and are being used to guide social processes more efficiently in order to accelerate the transition to the higher stage of communism.

The amount of free time depends above all on the other components of the time budget which represent necessary expenditures of time of which working hours are of decisive importance. The Communist Party of the USSR has been consistently implementing the policy of establishing the optimum working time in line with the objective conditions of production and with the economic and political goals. The average working week for all factory and office workers in

the Soviet Union currently stands at 39.4 hours, which compares with over 58.5 hours in 1913. In capitalist countries today, the working week ranges from 45 to 50 hours, and often longer.

After the switch-over to a seven- and six-hour working day in 1958-63, the off-work time of Soviet workers increased by 750-800 hours compared to 1913, and by about 300 hours compared to 1957. The free time also increased. Surveys conducted in 1959-65 revealed that over the same period the free time available to workers increased by 20-40 per cent. Even before the switch-over to the five-day working week with two days off, the annual amount of free time approached that of labour time. Free time ranged between 14 and 28.9 per cent of the weekly amount of off-work time.

Between 1959 and 1965, thanks to the switch-over to a shortened working day, the increase in free time available to Soviet office and factory workers in per worker terms amounted to 400 hours a year, according to surveys of time budgets conducted in 1959 and 1963. If we remember that the total strength of office and factory workers in the Soviet Union stood at 77 million at the end of 1965, the overall increase in free time arising from the change-over to a shortened working day and from the rationalisation of other types of necessary time expenditures reached 30,000 million hours. This represents a vast wealth which is being used with increasing efficiency every year.

The switch-over to a five-day working week with two days off, effected in fulfilment of the decisions of the 23rd Congress of the CPSU between 1968 and 1970, offered new opportunities for increasing the amount of free time.

The schedule of work and rest under socialism offers a twofold advantage to working people. First, they gain as collective owners of the means of production, since this schedule creates better conditions for a more efficient production process, and also because there is a decline in losses of working time due to sickness, absenteeism, etc. In addition, working people gain as individuals, since off-work time related to work also declines. Furthermore, thanks to the introduction of rationally planned work shifts, the evening and night shifts are shortened.

The overall increase in free time for Soviet factory and office workers has amounted to 50,000 million hours annually over the past 10-12 years. The social effect of the five-day working week has been increased with the introduction of the economic reform which now encompasses entire branches of the economy. The new system of economic management, by stimulating the personal and collective interest of production workers in the end results of production, makes for higher efficiency of social labour and increases opportunities for extending the limits of free time. The economic reform improves the efficiency of the use of free time and increases its social significance.

Despite the undeniable success achieved in this area, it would be a mistake to think that the problem of increasing the amount of free time has been fully solved. The transition to the higher stage of communism, in the words of the CPSU Programme, presupposes the moulding of a new type of man with a scientific world outlook, high moral standards, and in perfect physical condition.

The demand for more free time outstrips its increase. In certain population groups, the amount of free time available varies widely.

An essential factor determining the amount of free time is the cultural and technical level of production workers and the size of their personal incomes per member of the family.

At the present stage of Soviet economic development, the principal avenue for increasing the amount of free time and eliminating the vestiges of social inequality in its distribution is the improvement of the structure of off-work time, and above all a reduction in the time spent on domestic chores and housework.

A good deal of attention is being paid to the search for solutions which would secure the priority growth of free time available to manual workers on low incomes and the less qualified brain workers. Only in this way can such workers catch up with the others. This task, which cannot be fulfilled overnight, should be tackled on the basis of comprehensive mechanisation followed by the gradual automation of production. The Soviet Communist Party's policy aimed at a steady increase in minimum wages is also an

essential factor. This policy calls for the accelerated growth of productivity from low-income workers.

To eliminate differences in the distribution of free time between men and women, and also between different age groups, great attention is now being paid to improving the division of labour within families, to creating an atmosphere of mutual assistance and friendly co-operation which makes for equal participation by members of the family in housework and domestic chores.

Reduction of time spent on travelling to and from work and on receiving assignments and tools is also a substantial reserve for increasing the amount of free time.

In the Soviet period, substantial changes have taken place not only in the amount of free time, but also in the structure of its use in accordance with the tasks of communist construction.

Within the structure of free time, the amount of time spent on physical culture and sports, intellectual pursuits and creative and social activity has increased very considerably. Soviet people are spending more time on reading newspapers and periodicals and fiction, and on visiting exhibitions, museums, theatres and cinemas. Television viewing and tourism are likewise claiming more time. The Soviet Union can be justifiably proud not only that it has the world's shortest working day, but that it has the most rational structure of free time. This conclusion follows from the results of the survey of time budgets conducted in 1965-66 at the initiative of the UNESCO Department for Social Sciences, Vienna.

To conduct the above survey, a special project was launched which involved the participation of Bulgaria, Belgium, Poland, the USSR, the USA, Czechoslovakia, the FRG, France and Yugoslavia. Later they were joined by Cuba, Sweden, Peru, the GDR, and other countries.

The participation in Project Time Budget of countries with different social and political systems gave rise to a sharp struggle during the methodological preparations for the international survey. Eventually, the Soviet classification of time expenditure and the Soviet method of inquiry were adopted in combination with self-registration. However, a number of significant concessions were made to the bourgeois sociologists. In particular, the time spent on church going

was included in the time devoted to social activity, while time expenditures related to work were grouped together with labour time. Labour time furthermore included lunch breaks and this reduced the amount of time spent on meeting physiological requirements. On the other hand, the time spent on upbringing children was put in the same group as time spent on looking after the children and that artificially increased the amount of time spent on housework and so reduced free time.

As part of the international survey the Soviet side selected the city of Pskov as the target, where some 3,000 time budgets were investigated. Pskov, population 115,000, is a typical enough city for the European part of the Soviet Union and was in line with the international quota agreed upon for the purposes of the survey (from 40 to 200 thousand inhabitants).

Table 6

Some of the findings of the International Survey of Time Budget with an Itemised Breakdown of Time Expenditure (in hours per average day of a seven-day week)

Item of expenditure	Pskov, USSR		Jackson, USA		Osnabrück, FRG	
	men	women	men	women	men	women
working time (including overtime)	6.2	5.7	6.3	4.9	6.5	4.7
time spent on work-related activities (inclusive of journey to and from place of work)	1.4	1.2	1.1	0.7	0.8	0.7
work about the house	1.0	3.1	0.6	2.4	0.9	2.9
other everyday concerns	1.2	1.8	1.3	1.9	0.7	1.2
physiological requirements	9.3	9.2	9.7	9.9	10.2	10.5
free time	4.9	3.0	5.0	4.2	4.9	4.0
including:						
study and self-education	0.7	0.5	0.1	0.1	0.1	0.1
social (public) activities	0.1	0.1	0.3	0.3	0.2	0.1
entertainment	0.3	0.3	0.1	0.1	0.1	0.1
sports and active recreation	0.7	0.4	0.3	0.3	0.8	0.7
listening-in	0.2	0.1	0.1	—	0.1	0.1
TV viewing	0.8	0.5	1.9	1.2	1.3	0.9
reading	1.1	0.6	0.6	0.5	0.6	0.4
passive rest	0.3	0.2	0.3	0.3	0.5	0.5

In the Soviet city of Pskov, 91 per cent of the people covered by the survey were working people. In Jackson, USA, the percentage was 71, and in Osnabrück, FRG—64 per cent. This clearly militates against a fair comparison of data for individual items of the time budgets in per capita terms. Comparison is even more difficult when it comes to average data on time budgets for women, since in capitalist countries over half of the women covered by the survey are not engaged in social production, whereas in the city of Pskov 89 per cent of them are.

Despite these defects, which tend to distort the real picture in favour of bourgeois sociologists, the comparative data of the international survey of time budgets are not without scientific and practical interest. A preliminary analysis of the data obtained makes it possible to identify a number of essential social and economic phenomena which are sometimes common to several countries and sometimes peculiar to certain groups of countries.

The differences in the structure of the overall time budget of the working people in different countries clearly indicate the truly great gains of socialism in the USSR. Although Soviet industry is lagging behind that of the United States in terms of labour productivity (in the United States it is double that in the Soviet Union), the Soviet system has been able to give the workers the world's shortest working day.

The actual *labour time,* including overtime, in the Soviet Union is 6.2 hours for men as against 6.3 hours in the USA. Another telling fact is that the percentage of those engaged in science, the cultural sphere, education and the health service is highest in the USSR (18.1 per cent), and lowest in the FRG (3,5 per cent).

In the USSR, the *time spent on activity related to work* is somewhat higher than in capitalist countries. In the case of men, it is 1.4 hours, as against 1.1 hours in the United States. When making this comparison, one has to bear in mind that the lunch break was mistakenly included in this category.

Of no less importance is the fact that in the city of Pskov, 65.1 per cent of those covered by the survey live within two kilometres of their places of work, and 30.3 per cent live within two to seven kilometres. That is why the majority of working people covered by the survey (66.1 per cent) do not

use transport to get to work and the time they spend walking to and back from work is in effect part of their active rest. In the city of Jackson in the USA, 42.7 per cent of those covered by the survey live within two kilometres of their places of work. One-third live within seven to fifty kilometres. Because of the dense traffic on the roads in the United States driving to and from work in a private car is an exhausting process.[1]

The proportion of those engaged in cottage industries has an appreciable effect on the amount of time spent on activity related to work. In the city of Pskov, the number of those working at home amounts to 0.9 per cent, while in Jackson it is 31.3 per cent.

Expenditures of time on *housework and domestic chores* are considerable everywhere. In Pskov these expenditures are somewhat larger than those in the United States. This is explained by a variety of reasons, notably by the greater degree of female labour in social production and by the lower level of mechanised housework in the USSR as compared with such countries as the USA and the FRG. In these countries, the number of people employed in the services is double that in Pskov.

Out of the total of 34.3 hours a week (free time) in the case of males in Pskov, over half is spent on cultural pursuits (21.7 hours). In Pskov, compared to the foreign cities covered by the survey, the amount of time spent on study and self-education is the highest. In the case of working men, it is seven times that in Jackson, USA, and Osnabrück, FRG. Much the same situation prevails in other socialist countries. Far more time is spent by the people of Pskov compared to the people of Jackson, West German cities and French cities on reading and on visits to the cinema, the theatre, museums and exhibitions.

In the USSR, little or no time is now spent on church going, on participation in the activities of church societies, or on other types of activity alien to the socialist system. In the capitalist countries, by contrast, the amount of time spent on such activities is 500 times that in the Soviet Union,

[1] In Jackson 92 per cent of those covered by the survey have cars, 1 per cent—motorcycles, and 6 per cent—bikes.

accounts for a considerable portion of free time, and is the principal form of "social activity".

In the USSR, the bulk of free time is spent on intellectual pursuits (65-70 per cent). Expenditures of time on social activity, according to surveys conducted in different cities, amount to 1.5 hours a week, of which about 20 per cent is spent on attending meetings, conferences and gatherings. The types of social activity engaged in by Soviet people testify to their more active participation in managing their own social affairs. In recent years, large-scale work has begun involving massive public participation in a variety of economic and technical councils, design bureaus, committees of people's control, and creative organisations. For people to be fully and usefully occupied in their spare time is characteristic of all the republics in the Soviet Union.

Thanks to the increase in free time, the number of those attending night schools, evening courses and extramural departments of secondary specialised educational institutions in the Soviet Union rose from 188,000 in 1940 to 1,829,000 in 1970. The increase of those attending colleges and universities was from 54,000 in 1940 to 2,338,000 in 1970. Moreover, over 18 million working people attend courses and adult education programmes organised at their places of work.

Soviet people have ample time for rest and entertainment —from a half to two-thirds of the total weekly amount of free time. Prominent among the various kinds of activities classed as recreation are listening to the radio, watching TV, reading fiction, papers and periodicals, visiting museums, theatres and cinemas, etc.

Physical culture and sports are becoming increasingly popular. According to a survey conducted in the Krasnoyarsk area, in 1959-63, male workers there spent up to 2.2 hours a week on physical culture and sports, and females up to 30 minutes.

A law of socialism, which is determined by the essence of the system and by the special features of the operation of the law of time economy in the lower stage of the communist society, *is* not only an increase in the amount of available free time, but also *the more effective* use of it. As the Soviet Union scores success after success in economic development,

free time is playing a more active social part as a means of extended reproduction of the physical and moral capacities of working people and of increasing their creative activity.

The Soviet Communist Party and the Soviet Government are working to organise systematic efforts aimed at saving time in all the activities of the Soviet people. Alongside the available reserves for increasing the amount of free time in the process of communist construction greater importance is being assumed by the reserves for a more rational use of the time. At the present time, the structure of free time, like its amount, has so far failed to meet fully the interests of communist construction. Indeed, the average figures often conceal considerable differences between individual demographic and social groups. One of the key social tasks today is the elimination of the distinctions in the cultural and technical standards of rural and urban dwellers.

The interests of Soviet society call for rationalising the use of free time in every way. This is dictated by the the new tasks of communist construction as outlined by the 24th Congress of the CPSU, the most important of which is to secure an organic combination of the advantages of the socialist system with the achievements of the scientific and technological revolution. The solution of this important task requires constant efforts to equip working people with a good knowledge of technology, economics, labour organisation, production and management.

The Directives of the 24th Congress of the CPSU and the law on the state economic development plan for 1971-75 outline a wide series of measures aimed at building up the reserves of free time and providing better opportunities for its efficient use in the interests of securing the all-round development of the human personality. In the current five-year period, the volume of services available to the population in the country as a whole is expected to double, while in rural areas it will increase 2.8 times. At the same time, the retail trading network and the public catering system in urban areas are being improved.

A good deal is being done in the current five-year period to ensure a more rational use of free time in order to raise the cultural level of the population and meet their growing material and spiritual requirements. More theatres, cinemas,

community centres and public libraries are being built. The broadcasting and television networks are being expanded, and more attention is being paid to improving facilities for physical culture, sports and tourist activities.

Under socialism, the overall socio-economic factors are not the only ones which help to improve the use of free time. The distribution and utilisation of this "all-important space" for human development depends increasingly on production collectives. In conditions where, out of the 365 days of the year, over 100 are taken up by public holidays and days-off, many Soviet enterprises carefully study the total time budget.

Soviet people realise that in order to treasure every hour of time, it must be filled with activities useful both to themselves and to society as a whole. Marx wrote: "In the case of each individual, as for society as a whole, his all-round development, consumption and activity depend on time economy. Any kind of economy in the final analysis is time economy."[1]

The rational use of free time is becoming not only a social necessity, but a vital challenge for each Soviet man and woman. It affects the status of working people in production and outside of it, and it affects the Soviet way of life as a whole.

At the present stage of communist construction in the USSR, efforts to promote the more efficient use of free time, to secure its rational distribution are acquiring the same importance as efforts to abolish illiteracy in the early years of Soviet power. Unless this is done, communism cannot be learned, nor can it be successfully built.

Free time is not only a mirror of socialism, but its very strength. The many articles and reviews carried by the Soviet press these days show that as the Leninist principles of economic management and norms of public life are implemented more fully, social production is more effective; free time is used more rationally and has a greater impact on the productive power of labour, and technical, economic and social progress is correspondingly accelerated.

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[1] Marx, *Grundrisse der Kritik der Politischen Ökonomie*, S. 89.

THE IMPACT OF FREE TIME ON SOCIALIST WEALTH

Free time does not exist by itself, but in close connection with all the other time parameters of human activity. Free time comes as the end result of the operation of the law of time economy in all areas of public life. If it is true that the growth of labour productivity is a concentrated expression of time economy in material production, then it follows that an increase in free time, its distribution pattern and its rational utilisation, may be regarded as the concentrated expression and generally applicable criterion of the operation of this primary economic law as a whole.

Under socialism, an important condition for increasing the amount of available free time is the industrial development of the whole of the economy and the growth of labour productivity. It is on this basis that working time is being reduced, and this provides greater opportunities for increasing the amount of free time. Meanwhile, the growing labour efficiency in material production makes it possible to increase the quantity of labour in the services industries and this reduces the amount of time spent on meeting day-to-day requirements and, in so doing, increases the free time available to working people. The growth of labour productivity on the basis of industrial development also affects the sphere of housework and subsidiary farming, and this also serves to improve the structure of the time budget in favour of free time.

Free time is formed on a basis of necessary time expenditures. Working and free time are particularly closely connected.

First, the more physical and spiritual energy is expended during the working day, the shorter should be the working day and the more free time should result.

The reproduction of labour power calls for time expenditures necessary to meet physical requirements, "without which labour-power absolutely refuses its services again". But, as society develops, greater importance is assumed by the "time for education, for intellectual development, for the fulfilling of social functions and for social intercourse, for the free play of bodily and mental activity".[1]

[1] Marx, *Capital*, Vol. I, p. 264.

It follows from the above that the working day has its physical and moral limits. The former arises from the fact that during the day, workers "have to rest, sleep, and meet other physical needs—eat, be clean, keep their houses tidy, etc.". The moral limits, by contrast, are conditioned by the necessity to spend time on "satisfying one's intellectual and social needs, whose volume and standard depend on the general state of cultural environment".[1]

Secondly, the amount of free time, all the other things being equal, depends directly and indirectly on the length of the working day and the efficiency with which working time is used. The less time society spends on the production of the material benefits it needs, the more time is left for the free play of bodily and mental activity. At the same time, human capacity for work provides the necessary material basis for using free time.

Thirdly, the use of free time has a feedback effect on the efficient use of working time and on the development of material production as a whole, and hence on efforts to increase national wealth.

This economic function of free time is determined by its social role as a necessary condition for the all-round development of members of society or, as Marx observed, for "that full development of the individual, which being itself a mighty productive force, exerts a positive impact on the productive power of labour". From the standpoint of the productive process proper, time saving "can be looked upon as production of fixed capital which is man himself".[2]

Fourthly, in the process of communist construction, the relationship between working and free time is strengthened and they begin to interpenetrate one another.

The abolition of social antagonisms, as the founders of Marxism foresaw, makes it possible to limit the length of working time to the normal measure of labour, and this expands the basis of free time, gives labour a free character and, consequently, improves it qualitatively.

Predicting the inevitability of the eventual replacement of capitalism by socialism, which is characterised by the ap-

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[1] Marx, *Plagiarismus*. In: Marx/Engels, *Werke*, 1962, Bd. 16, S. 221.
[2] Marx, *Grundrisse der Kritik der Politischen Ökonomie*, S. 599.

propriation of the surplus product by the working masses themselves, Marx wrote: "Once they have done so and *free time* in consequence of that has ceased to exist in *antagonistic* form, a situation will emerge where, on the one hand, the necessary labour time will be measured by the requirements of the societal individual, and on the other, productive forces will begin to develop at such a high rate that although production will be carried on to ensure the prosperity of all, the amount of *disposable time* available to all will increase."[1]

As the material and technical foundations of communist society are being built, the character of labour grows more creative; it becomes an arena for the free play of physical and intellectual capacities of man and a primary and vital necessity for normal, healthy individuals. Free time too is becoming such an arena. Emphasising that at the higher phase of communist society the developed productive power of all individuals will become real wealth, Marx wrote: "Then free time and not labour time will be the measure of wealth."[2]

The theoretical propositions on the interrelationship between working and free time formulated by Marx as he worked out his economic teaching, are acquiring particular topicality in the conditions of the total and final victory of socialism, when concern for increasing the efficiency of social production, accompanied by a growing amount of free time and its more rational use, is becoming a major concern of the Communist Party and the socialist state.

The increase in labour productivity achieved in the Soviet period is not only the cause, but also the effect of the increase in free time and of concern for that most valuable "basic capital"—the working man. The need for the further growth of labour productivity makes the role of free time more important still placing it on the same level as working time. In this connection, it is now particularly important to

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[1] Marx, *Grundrisse der Kritik der Politischen Ökonomie*, S. 596.

[2] Ibid., S. 597. This does not in the least detract from the importance of working time. "*Labour-time*, even if exchange-value is eliminated, always remains the creative substance of wealth and the measure of the *cost* of its production" (Marx, *Theories of Surplus-Value*, Part III, p. 257).

study the possibilities of increasing free time, to establish criteria for determining the socially necessary amount of free time for society as a whole and for individual social groups, and to learn to use it more efficiently.

The practical experience gained by many production collectives in the Soviet Union indicates that the fuller use is made of extensive and intensive reserves of free time, the greater are the spiritual and physical powers of working people, and the higher the productivity of labour. The work of foremost production collectives and individual workers working the communist way corroborates this objective law of socialism.

Under the conditions of modern production, great importance is attached to using free time for self-education and study which directly contribute to the expansion of the intellectual potential of working people. Vocational training and general education are vital factors contributing to higher labour productivity and greater national income. This has been established by Soviet Academician S. G. Strumilin. According to his findings, the ABC of knowledge that an average worker could acquire in the thirties after a year of study increased his productivity by an average of 30 per cent. The progress of secondary and higher education in the USSR made it possible between 1940 and 1960 to increase the national income by over six times, while the net income went up ten times.

In the USSR, the number of inventors and rationalisers in industry increased vastly in response to the increase in free time. In 1950, their number was 555,000; in 1969, the figure rose to 3,457,000. The number of rationalisation proposals and inventions introduced into production during this period went up from 655,000 to 3,218,000.

The Soviet worker is the real owner of the material and spiritual values he has produced. His growing knowledge is a source of economic and social progress. According to sociological estimates, over a quarter of the Soviet Union's national income is obtained through the growth of the cultural and technical standards of the working people. In the eighth five-year period alone, the total economies secured by the technical inventive efforts of Soviet working people amounted to 12,500 million rubles.

The increase in the amount of free time and its more efficient use make for a higher level of activity in all areas of public life. After the switch-over to a shorter working day, Soviet people spent an average of 1.1 hours a week on public work. Following the transition to a five-day working week with two days off, the amount of time spent on public work increased from 3 to 5 times depending on age group and educational level.

The resolution adopted by the 24th Congress of the CPSU on the main report of the Central Committee states: "The Congress stresses that the effort to build communism is inseparable from the all-round development of socialist democracy, the consolidation of the Soviet state, the improvement of the entire system of society's political organisation."[1] At the same time, the Congress stressed the need for stimulating further the creative activity of working people.

The increase in the amount of free time and its more efficient use in society as a whole are of great importance for the growth of socialist wealth and for accelerating social and economic progress. Important factors in this connection are the progress of science, education and culture and the activities of creative organisations. The decisions of the 24th Congress of the CPSU point out that the development of Soviet science is the principal factor in the solution of the tasks of communist construction. A wide-ranging programme of measures has been outlined to enhance the efficiency of research organisations, to improve the entire system of education as required by economic development, and to maintain close co-operation between scientists and industrial enterprises.

In socialist countries, apart from the weekly and annual amount of free time, life-span resources of free time are showing an increase. This is the result of a declining death rate and an extension in the average life-span, and is also the result of a relatively young pensionable age. The number of pensioners in the USSR increased from 4 million in 1941 to 40 million in 1970. At the same time, average life expectancy among persons of pensionable age increased by 3-4 years. This means that the overall amount of free time

[1] *24th Congress of the CPSU*, p. 226.

at the disposal of this social group has increased manifold. This time is of great value to society as a whole. Speaking at the 24th Congress of the CPSU, L. I. Brezhnev said: "We shall act correctly if we take steps to employ the experience and energy of our veterans more extensively in social and labour activity."[1]

This is particularly important, since pensioners' greater activity in the production and social sphere is, at the same time, the best remedy against their ageing.

Examining the effect of free time on the development of workers engaged in socialist production and on the growth of public wealth, we should emphasise the decisive importance of labour for the moulding of personality. Labour activity within the system of social production calls for a steady improvement in the spiritual and physical capacities of working people. Free socialist labour, with the help of advanced equipment and technological aids, is an arena for the positive all-round development of the workers and for moulding them into active agents of social development.

Under capitalism, where the labour process is a means of creating surplus value and where capital straitjackets the potentialities of the people, the surplus labour of the masses, according to Marx, is not a condition for the development of universal wealth, in the same way as the idleness of the few is not a source of a higher intellectual potential.

It is no accident that bourgeois sociologists, seeking to separate free time from the process of labour, regard it as an independent category. Georges Friedmann, for one, describes a worker as someone who does not enjoy his job, and is of the opinion that leisure time alone gives scope for the development of personality. Another sociologist, Geoffre Dumazidier, holds the same opinion. American sociologists are peddling similar views. Other bourgeois sociologists, in proclaiming that leisure time is the whole of off-work time, unemployment included, seek to assure their readers that workers under capitalism have plenty of leisure time. The West German Social-Democrats subscribe to the same theory.

It is only socialism that makes both working and free time an arena for the all-round development and creative appli-

[1] *24th Congress of the CPSU*, p. 91.

cation of the spiritual and physical capacities of the individual. With every five-year plan, the opportunities grow for increasing free time and making its utilisation more rational. The Directives of the 24th Congress of the CPSU for the Five-Year Economic Development Plan of the USSR for 1971-1975 have created additional scope for work in this field.

A nation-wide emulation is in progress to fulfil successfully the targets under the Ninth Five-Year Plan, to increase output without expanding the work force, to improve product quality, to fulfil production assignments on the basis of higher labour efficiency, and to bring new plant, equipment and capacities into full production ahead of schedule. In the decision adopted by the CC of the CPSU on measures for further improving the organisation of socialist emulation, it is pointed out that the improvement and development of socialist emulation is an important factor in the successful implementation of the programme of the country's economic, social and political development adopted by the 24th Congress of the CPSU. The broad system of measures outlined in the decision has as its aim to secure a more efficient use of the law of time economy, to stimulate the creative activity of the working masses, to heighten their role in production, in the running of society as a whole, and in developing the productive forces and relations of production. The implementation of this decision calls for closer attention to the rational use of every minute of working and free time. The 24th Congress of the CPSU called attention to the need for heightening the role of production collectives, which are the building blocks of Soviet socialist society. As L. I. Brezhnev stated at the 24th Party Congress, "This is a major field of struggle for stepping up the labour and social activity of Soviet people. The new, socialist qualities of the working people and the relations of friendship and comradely mutual assistance take shape in these collectives. The responsibility of each to the collective and of the collective for each of its members is an inalienable feature of our way of life."[1]

In recent years, social planning schemes have gained in popularity. Social planning now forms an integral part of the

[1] *24th Congress of the CPSU*, p. 97.

five-year plans of many enterprises. This demands a close study of the amount of free time (within the entire time budget) and a search for ways and means of improving the efficiency of its utilisation.

Every condition has been created in the Soviet Union to ensure success in the fulfilment of social planning schemes. Every region, city, territory and production association has research organisations, economic institutes, laboratories and other facilities engaged in sociological studies. The efforts of these centres are co-ordinated and oriented towards the planning of optimal time budgets for the working people.

The Soviet people clearly realise the interconnection between socialist wealth and free time. They are fully aware that the more efficiently they use free time today, the better will be their living and working conditions tomorrow.

CONCLUSION

In human history, historical periods are normally measured in centuries and even in millennia. Many millennia had to pass before mankind went over from the primitive communal system to slave-ownership. Several millennia were to pass before mankind reached feudalism. The feudal system prevailed for 12 centuries, to be replaced by capitalism, which offered greater opportunities for the development of social production, for improving labour productivity and for increasing national wealth. However, capitalism soon revealed its transitory character. Capitalism began to take shape in the 16th century. In the early 19th century, economic crises of overproduction brought to light profound contradictions between the developing social character of the production process and the narrow framework of private ownership relations. This is the crucial contradiction of capitalism, which becomes increasingly accentuated as capitalism develops. Socialist revolution alone can resolve it.

The socialist system was established in Russia in 1917 following the expropriation of exploiters, as a result of which the working people, as the creators of social wealth, became its true owners. In 1917, the share of socialism in world industrial production amounted to less than 3 per cent. In

1920, the imperialist intervention and the Civil War brought this share down to one per cent. Thanks to the advantages offered by socialism, its share in world industrial production rose to 10 per cent by 1937. Socialism proved its viability and advantages with every passing year. The attempts made by the imperialists to destroy socialism by war came to nothing. Furthermore, these attempts resulted in the complete destruction of the shock detachments of imperialism—nazi Germany and militarist Japan. It could not have been otherwise. The revolutionary transition from capitalism to socialism is the main content of contemporary world development. This transition is an imperative of history dictated by the further development of the material life of mankind.

After World War II, a world system of socialism emerged which has since been gathering strength in the political, economic and military fields, and the impact of socialism on world development is becoming ever greater.

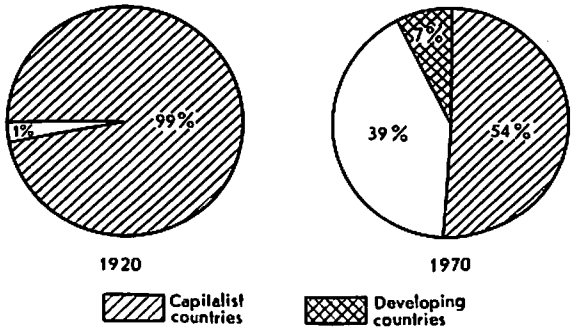
Socialism makes all members of society equal participants in the creation of national wealth according to their differing abilities. It makes members of society equal with respect to the use of the material and spiritual values created in accordance with the labour contribution of each. The planned development of the economy in the interests of all working people, the absence of crises, the guarantee of the social and political rights of members of society, the development of genuine democracy involving the broad participation of the masses in running society, genuine equality of nations and friendship among them, the steadily increasing opportunities for the development of the human individuality —these are some of the advantages offered by the socialist system.

The world socialist system is about 30 years old. In terms of human history, this is but a moment. But today any thinking person is bound to realise that the future belongs to socialism.

Until World War II, the socialist countries accounted for 17 per cent of the world's area and for 9 per cent of the world population. In 1971, the socialist countries account for 25.9 per cent of the territory and for about a third of the world population.

In 1970, the socialist countries produced 39 per cent of the world industrial output, as compared to one per cent in 1920. In 1970 the Soviet Union accounted for one-fifth of the world industrial output.

The Share of Socialist Countries in World Industrial Production



The Great October Socialist Revolution heralded the beginning of the end of the capitalist mode of production. Under the impact of the revolution the peoples of many colonial and dependent countries rose to struggle for their liberation. The victory of the Soviet Union in the Great Patriotic War made it easier for the peoples of colonial countries to fight for their emancipation. Following World War II the collapse of the colonial system of capitalism became a historical fact. The victories scored by the national liberation movements in their turn accelerated the disintegration of the capitalist system of production.

In 1970, the developing countries accounted for about 7 per cent of the world industrial output. In the past half a century the developed capitalist countries have experienced increasing pressure on the part of the rest of the world. In that year they accounted for only 54 per cent of the world industrial production. In 1970, the industrial production of the socialist countries amounted to nearly 70 per cent of that of the advanced capitalist countries.

The Eighth Five-Year Plan was marked by spectacular success for the socialist countries. Between 1966 and 1970

industrial production in the member countries of CMEA went up by 49 per cent. Industrial production in these countries increased by an average of 8.3 per cent a year which compares to 6.5 per cent in the EEC countries and 3.3 per cent in the United States.

In all the socialist countries the real per capita incomes increased at a high rate, whereas in capitalist countries the exploiting classes intensified their offensive on the working people's standards of living. In the next five years the socialist countries are expected to score even more impressive successes. The current five-year period got off to a dynamic start against the background of the strengthening co-operation between the socialist countries on the basis of implementing the Comprehensive Programme for Further Co-operation and Socialist Economic Integration. The Programme, which was adopted by the 25th session of the Council for Mutual Economic Assistance in 1971, is expected to be implemented by stages over the next 15-20 years. Unprecedented in scale and importance the Programme pools the economic and scientific potentials of the CMEA countries, and provides guidelines for further efforts aimed at building socialism and communism, at consolidating the positions of the socialist countries on the world scene and bringing nearer the day when socialism will win in its economic competition with capitalism.

Just over 100 years ago Marx and Engels, the great teachers of the workers of the world, wrote, "A spectre is haunting Europe—the spectre of Communism." Today communism has become a living cause for millions of working people. Its attraction is irresistible. Unlike capitalism which is associated with war, communism brings an era of everlasting *peace* on earth.

On the banner of communism the word *peace* is inscribed alongside the word *labour*. Free labour for oneself and for the benefit of the whole of society is the determining factor in the life of the people of socialist countries. The prediction of the founders of Marxism that under communism all the founts of wealth will be flowing freely is coming true. With every passing year the national wealth of socialist countries grows at a higher rate.

Communism implies complete social *equality*, its key prin-

ciple being "from each according to his ability, to each according to his needs".

Communism means genuine *freedom*. Following the victory of the socialist revolution and the abolition of exploitation of man by man the principal direction in the development of society is the creation of conditions where every man and woman can develop and apply his or her talents and abilities in an atmosphere of complete freedom. As socialism develops, the old division of labour which tends to chain the working man for life to a particular trade or even an operation is ended. Under socialism, the worker is the owner of the products of his labour. The psychological as well as the physical capacity for work is being further developed. The man of the communist tomorrow will be a harmoniously developed individual characterised by high moral standards and physical fitness. This type of man is being moulded in the socialist countries today.

The people of the Soviet Union willingly share their achievements and knowledge with the working people in other socialist countries, and in countries of Asia, Africa and Latin America who are following the road of independent development. No matter where Soviet people may be called upon to work, in India, Egypt, or Afghanistan, everywhere they are the torchbearers of collectivism and everywhere they are in the service of the lofty ideals of progress and friendship among nations.

The working people the world over associate their best hopes and aspirations with the world socialist system and the Union of Soviet Socialist Republics, its mainstay and stronghold.

The jubilee of the first multinational socialist state in human history which was celebrated in December 1972 came as a festival for the progressive forces all over the world. Envoys from more than 100 different countries came to the Soviet Union to join in the celebrations of the momentous anniversary.

The great Lenin emphasised that socialism "creates new and superior forms of human society".[1]

The Soviet Union's development along socialist lines has

[1] V. I. Lenin, *Collected Works*, Vol. 21, pp. 38-39.

produced among other things a totally *new historical entity of humans—the Soviet people*, comprising socialist classes and social groups.

The following salient features distinguish the new entity: common goal—communism, common world outlook—Marxism-Leninism and profound internationalism which having originated as the ideal of a handful of Communists has developed into a standard of behaviour for millions of Soviet people of many different nationalities.

The Soviet people demonstrate their commitment to internationalism in their daily work, in their struggle for the happiness of working men and women everywhere, by giving their unqualified support to all those who take a determined stand against imperialism and reaction.

Speaking at a meeting to mark the 50th anniversary of the USSR, Georges Marchais, General Secretary of the French Communist Party, said: "The Soviet Union is unquestionably fighting in the van of the world-wide struggle against imperialism."

Convincing proof of this is the Soviet Union's disinterested aid to the heroic people of Vietnam in their fight for independence and freedom which, including their recent armed struggle against US imperialism, spanned almost 30 years. The victory of the Vietnamese showed for the world to see that it is impossible to defeat a people fighting for a just cause and leaning on the aid and support of the Soviet Union, other socialist countries, all peace supporters the world over. At the same time the victory of the Vietnamese people has provided an additional demonstration of the effectiveness of the Soviet Programme of Peace. The Soviet Union has been and continues to be the standard-bearer of the peoples fighting for peace, democracy and socialism.

Speaking at a meeting to mark the 50th anniversary of the founding of the USSR, Dr. Fidel Castro, First Secretary of the Communist Party of Cuba and Prime Minister of Cuba's Revolutionary Government, said: "Today, there is hardly anyone who seriously doubts that the future of mankind belongs to socialism. As the peoples of the world march towards the goal of socialism the great Lenin looms ever larger in human history, his lofty ideas are winning the

hearts and minds of revolutionary fighters in all corners of the Earth. . . .

"The progress of the fraternal co-operation among the Soviet Union's socialist republics within the framework of a united multinational state has outlined the shape of the world of tomorrow, the world of a close-knit community of socialist nations, the final fulfilment of the long-cherished dream of a world without frontiers. We fully share this ideal."

The ideals of socialism where all wealth is owned and used by the working people in the interests of the full development of all of society, are a source of inspiration for the upright and honest peoples the world over.

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This book, written in non-specialist language, contains a clear, if brief, exposition of the essence of wealth in a socialist society, spotlights the interrelationships between the wealth of society and that of the individual and shows how socialist wealth is created and distributed.

The author demonstrates that high production efficiency and continued growth of labour productivity are the chief precondition of victory of socialism over capitalism. He gives valid reasons for the need to observe a strict economy in the use of resources. Special attention is given to scientific and technological progress, the economic reform, scientific organisation of labour and production management.

The author has drawn on a wealth of statistical data relating to economic and community life in the Soviet Union today.