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The Methodology of Forming Prices of Farm Produce,  
History of Price Formation in the USSR  

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Under socialism, planning price formation is a major component of the centralised regulating mechanism, widely used by the workers' and peasants' state in its economic policy and guidance of the economy. The half-century experience of socialist production has cogently proved the objective necessity for a single state price policy, with a rational combination of centralism and the economic initiatives of enterprises in organising production and tapping their potentialities to raise its efficiency and in providing the utmost material and moral stimuli to the workers.

The level of the planned prices of farm produce, organically combined with the budget financing and credits, predetermines, on the one hand, the possibility of cost-accounting operation of state and collective farms, the formation by them of funds for accumulation and consumption, the achievement of the planned economic growth rates and velocity of circulation, and, on the other, the possibility of satisfying the consumers' demand and making accumulations on a scale needed by the economy.

The objective laws governing the intricate value and price relations in the course of planned socialist reproduction are displayed in the movement of prices and expenditures in time and space, in their changing internal structure under the influence of regulating factors. Price changes, in turn, exert an active stimulating or retarding influence on the economic growth rates. As some investigations have shown, various current prices are interrelated representing a single intricate price system. Under the impact of the changing economic conditions of production and sale of goods, the price system is subject to constant alterations both in its internal structure and in its general movement. Under socialism, prices of agricultural produce, just as of other socially produced goods, are shaped within the national economic price system. Its planned formation is an effective instrument in influencing the structure of production itself in the requisite direction. To the extent that the price of every product and the price ratios of exchangeable products are economically justified, they exert a positive influence on the structural shifts in social production, too.

Lenin foresaw that the socialist economy would be able to develop on a sound basis only if there were a proper exchange of products of labour between town and country. In this he saw the economic essence of socialism, its basis. The scientifically-based system of the planned purchase and delivery prices of agricultural produce in the correlational and equivalent co-ordination with the wholesale and retail prices of manufactured goods

consumed by the rural population, has created the real prerequisites for economic stability in agricultural production. It has freed the countryside from every 'market contingency', price fluctuations, and instability inherent in capitalist farming where the income and the farmer's well-being directly depend on market conditions. It is not accidental that many of the highly developed capitalist countries borrow, as much as possible, the socialist countries' experience in the centralised regulation of the prices of farm produce in order to ensure agricultural development at a definite level without infringing the interests of capital. Despite the keen internal contradictions, members of the Common Market are trying to set uniform prices of agricultural produce within the framework of the E.E.C.

It is clear that the socialist system of agriculture with its intrinsic planned development and possibilities of efficient and flexible planning has many indisputable advantages. The large-scale socialised enterprise of the state and collective farms develops under the guiding influence of state economic policy, based on the most rational combination of price and other instruments of economic regulation in the given national economic situations. The price system is the more effective, the more completely it reflects the dynamics of production and circulation and considers the totality of factors which shape the expenditure and social value in a planned balance between demand and supply.

The system of agricultural prices is economically justified only when, on the one hand, it has (under prevailing production and market conditions) a sufficiently high level of state purchase prices (the collective farms sell nearly 85-90 per cent of all marketable output at these prices), which materially stimulates the steady growth of production in conformity with the planned rates, i.e. secures the coverage of outlays and also a requisite rate of profit in every normally operating farm. On the other hand, this system provides for a sufficiently low level of state retail prices (consumers buy goods in the state trading network at these prices) to satisfy to the fullest possible extent the people's requirements in foodstuffs and articles made from agricultural raw materials. This ensures a planned balance of prices and inputs and stimulates in every way the expansion of production to meet the people's needs and guarantees the requisite scale of accumulation and consumption.

A farm derives the biggest economic effect from raising the mass of net income through the utmost expansion of high-quality produce, envisaged in the state plan at low costs of production and sales. This helps to create real conditions for increasing the capacity of the market of foodstuffs by lowering retail prices without any detriment to accumulation. To put it differently, in such a situation the required level of profitability and accumulation on farms is possible at relatively low purchase prices; this creates a reserve for regulating retail prices in a way that stimulates consumption. Naturally, the implementation of such a price policy requires the appropriate economic, organisational and technical prerequisites, a high degree of the production organisation at the latest scientific and technological level.

Otherwise, the unjustified reduction of the purchase prices, their divorce from the level of the socially necessary expenditure of labour, is accompanied
by a corresponding withdrawal from agriculture of the surplus product and its channelling into other sectors of the economy through the mechanism of prices. This may become a brake on the development of agriculture and lower its economic efficiency. In turn, the unjustified raising of agricultural purchase prices, their rise above the level of the socially necessary labour expenditure, is accompanied by a corresponding flow of the surplus product to this sphere from other sectors of social production. This leads to the loss of the stimuli to improve farming and reduce costs. Both extremes in determining the level of stable purchase prices for farm produce in present conditions are not justified economically. The contradictoriness of interests is to be eliminated through an optimum, strictly balanced system of prices.

Since the price is the monetary expression of social value, its movement cannot be isolated from the changes in the magnitude of individual prime cost and the socially necessary magnitude of value, although the trend of prices for every product in a given moment are not synchronised. Depending on the economic conditions, changes in the individual and social expenditure and in prices of goods may differ. Of course, theoretically it is conceivable to adapt planned prices to the corresponding changes in the level of social value and to achieve a comparatively exact reflection of the socially necessary labour expenditures in the price of every product, i.e. to construct an ‘ideal’ system of planned prices according to value. However, the strictly synchronised and exact quantitative coincidence of price levels and values in their dynamics for each product would signify the loss of the economic role of price itself as a regulating instrument.

In present conditions, characterised by a high degree of the division of labour and a close co-operation between the related branches, the value of a social product constantly fluctuates. Changes in the technology, manufacturing processes and organisation of production in any link of the single production chain cause an inevitable reaction in the movement of the socially necessary labour expenditures throughout co-operative production. Against the background of changing prices the reproduction cycle would be of an unstable character, with continuous price fluctuations in both directions along the entire orbit of the goods turnover. The planned prices, based as they are on social value, are periodically revised under the influence of current changes, but they are altered not in a strict conformity with the movement of value. There are periods when prices of a product or a group of products deviates considerably from the level of social value. At times the trend was the opposite. The reason is not so much the lack of a smooth-functioning mechanism of planned price formation, as the objective shaping of conditions of production and sales, the general state of the country’s economy.

Methodologically, the formation of planned prices for agricultural produce rests on the fundamental Marxist discoveries of the internal economic nature of the formation of social value and its structure, the laws of the division of labour into necessary and surplus labour. In different socio-economic formations, the relationship between price and value, as a form of the manifestation of the essence of this economic phenomenon, is determined by the object-
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ively operating laws of production and the market. 'The possibility of quantitative incongruity between price and magnitude of value, or the deviation of the former from the latter, is inherent in the price-form itself. This is no defect . . . '2 On the contrary, the price-form is adapted to the capitalist mode of production whose inherent laws impose themselves only as the mean of apparently lawless irregularities.

Marx was the first to prove scientifically the fact that in definite conditions valueless things may become objects of purchase and sale. The price-form is here imaginary, though it often conceals the real value relations (for instance, trade in natural resources to which no human labour has been applied).

The socialist economic system, being a higher form of organisation of social production and operating within the framework of economically-based commodity relations that preclude the purchase and sale of all the things which are not commodities, predetermines the conditions for the conscious guidance of the movement of the social expenditure, its level and structure, and for the institution of the most rational (in every given time) deflection of prices from value, in accordance with the operation of socialism's economic laws. The present stage of social production is characterised by the swift scientific and technological revolution, a high degree of economic concentration and specialisation. The theories of the self-sufficing role played by the law of supply and demand in price formation and disregard for the socially necessary labour expenditure and other outlays, which are current among bourgeois economists, are one-sided and out of date even for contemporary capitalist production with its domination of monopoly associations which dictate prices. Moreover, the purely 'market situation models' of prices are completely inapplicable in the socialist economy, which by virtue of its socio-economic nature develops according to a single national economic plan.

The functioning system of calculating inputs and costs in every collective or state farm provides comparatively dependable initial information for the necessary structural elements of prices 'from below' so that the planned level of purchase prices should cover the scientifically-based normatives of inputs by normally operating farms and enable them to have a requisite rate of net income. In other words, this financially secures (in combination with extra-price channels of regulation) the planned rates of extended reproduction. Through the system of balances these rates are co-ordinated with requirements and possibly dynamics of the demand for products in a definite period of time. The economic interest in raising the profitability of social production is organically combined with the interests of the entire society whose welfare largely depends on the development of agriculture.

The practice of planning the purchase prices of agricultural produce clashes, first of all, with the need to substantiate economically the level of the production outlays underlying prices, that is, the need to determine their magnitude, which is the socially necessary, and must be compensated. Moreover, strict account is taken of the objective factors which influence the

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formation of the prime cost of produce \((c + v)\) in the period of the functioning of the planned prices, and a possible forecast of the movement of the prime cost is made. Second, the planning of prices is linked with the necessity to substantiate, in the price structure, the magnitude of the net income of a farm \((m')\) which goes to form the funds needed for the operation of the enterprise on a cost-accounting basis and the planned rate of expanding production. Third, the planning of prices is linked with the determination of the range of deflection of prices both from the level of the individual outlays of production, on the one hand, and from the level of social value, on the other, within the establishment, at every given moment, of the most economically-substantiated long-term variants and trends. Fourth, the planning of prices is linked with the determination of the range of deflection of prices both from the level of the individual outlays of production, on the one hand, and from the level of social value, on the other, within the establishment, at every given moment, of the most economically-substantiated long-term variants and trends. Fourth, the planning of prices is linked with the determination of the range of deflection of prices both from the level of the individual outlays of production, on the one hand, and from the level of social value, on the other, within the establishment, at every given moment, of the most economically-substantiated long-term variants and trends. Fourth, the planning of prices is linked with the determination of the range of deflection of prices both from the level of the individual outlays of production, on the one hand, and from the level of social value, on the other, within the establishment, at every given moment, of the most economically-substantiated long-term variants and trends. Fourth, the planning of prices is linked with the determination of the range of deflection of prices both from the level of the individual outlays of production, on the one hand, and from the level of social value, on the other, within the establishment, at every given moment, of the most economically-substantiated long-term variants and trends. Fifth, prices are fixed, together with the simultaneous determination of the degree of planned equivalence of the exchange of agricultural products for manufactured goods which make up the decisive productive assets of agriculture. Changes in purchase prices of farm produce and in wholesale prices of manufactured goods supplied to the countryside cannot be made with economic justification in isolation from one another. They are directly interrelated and this circumstance regulates the proportions of exchange. Sixth, in substantiating a given level of purchase prices, the respective agencies take into account the planned balance between demand and supply in the final phase of the sale of produce to the consumer, that is, dovetail purchase prices with retail prices with a view to satisfying the consumer demand to the utmost.

Thus, the state agencies which shape the price policy have to solve this complex multi-faceted problem that affects the vital interests of both the agricultural producers and of all the consumers without any exception. Here it is very important to consider the specific features affecting the formation of production outlays and the social value of agricultural products associated with different types of farms and the distinctions of the reproductive cycles of plant and animal organisms determined by their biological nature and conditions of production. During discussions held in the past decade on questions of price formation Soviet economists advanced several principles of approach to the planning of prices which came to be known as the 'price-formation concepts'. The discussions have tended to bring closer together the different views and helped to choose the most acceptable variants meeting the conditions of socialist management which are made use of by the agencies which elaborate prices. The formula of the purchase price may be presented in its most general form as follows: \(Z = C + V + m''\), where \(C\) is the normative of material outlays, \(V\) is the normative of the labour remuneration and \(m''\) is
the necessary magnitude of the farm’s net income.

To determine the share of net income in the price, use is made of the principle of calculating co-efficients of the degree to which diverse factors influence labour productivity. In present-day conditions, in addition to labour itself, its intensity and organisation, assets per person engaged in agriculture are of great importance. Numerous investigations and practical management have shown that the better assets function and the more efficiently they are used, all other conditions being equal, also higher labour productivity, the greater is the share of surplus product in the newly-created value. Hence, the need for considering the asset-output ratio and for calculating a corresponding coefficient in setting planned prices. Soil fertility and the location of the land in relation to markets greatly influence the productivity of agricultural labour and hence the purchase prices and the magnitude of the part of differential rent that remains in a farm. For this purpose the rate of natural labour productivity \( \frac{C_{K}}{Y} \) is introduced into the formula. The initial base of prices assumes the form of modified value. The formula suggested by V.P. Dyachenko, Corresponding Member of the U.S.S.R. Academy of Sciences, is as follows:

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S = C + V (1 + K_{F} + K_{Z} + K_{F}^{1} + K_{Z}^{1}),
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where \( K_{F} \), \( K_{Z} \) and \( K_{F}^{1} \) are the corresponding coefficients which characterise the influence of labour power, productive assets and the quality of the soil resources on labour productivity and the general magnitude of modified value.

While taking into account the quantitative and qualitative differences in the assets of socialist enterprises according to branches and types of production, we also have to introduce the coefficient of the differentiated reflection of the asset-output ratio in planned prices. Calculations of the normatives and coefficients for planning prices are quite difficult and intricate. Use is often made of the method of direct calculation of the normatives of accumulation for the increase of fixed, circulating and other economic assets in accordance with the planned rate of growth in output.

It should be noted that the methodology and technique of calculation do not determine the economic essence of a functioning price. Whatever method is used in planning prices, once the price has been set and is in force, its economic functions acquire strictly regulating character. The farms and their personnel are interested not in the methodology of calculation but in the level of the fixed price. They want to know how it stimulates production and strengthens cost accounting. Alongside finding the 'structure' of a price, most acceptable from the standpoint of ensuring a high efficiency of social production, the ascertainment of the real trends of the movement of prices and the factors which determine them is of no less importance. The flexibility and mobility of the price system under the influence of changing conditions, far from precluding, on the contrary, presupposes a definite stability of prices, strict purposefulness of their planned regulation, consistent stimulation of the

most progressive trends, improved quality of output and the securing of equivalence of goods exchange.

At different stages of socialist construction the Soviet Government's policy of deciding agricultural prices was determined by the solution of concrete economic and political tasks. Through the price mechanism the Soviet state solved the fundamental problems of national economic development and secured the defence of socialist gains from outside encroachment. Mastery of the mechanism of price formation and primarily of agricultural prices was an important condition for building socialism in the U.S.S.R. To reveal the essence of the formation of prices and their movement on the food market over the period of more than 50 years, a period abounding in turbulent events, is an exceedingly difficult and complicated task. For lack of space we shall deal in this paper only with the most important stages in the planned formation of agricultural prices.

Planning of prices was ushered in by the Government's decree of May 1918 on the reorganisation of the People's Commissariat for Food and of local food organs. It stated: ‘Prices of prime necessities shall be fixed by the Supreme Economic Council, together with the People's Commissariat for Food’. On the basis of this decree these bodies passed a number of decisions with a view to introducing stable prices of farm products. The Decision on Fixed Prices of Grain Harvested in 1918 and in Preceeding Years set prices for rye, wheat, oats, barley and millet, differentiated for regions and provinces, and also determined the conditions of grain procurements. For instance, it fixed the price of 15.25 rubles for a pood of rye, 19.25 rubles for wheat, 15.00 rubles for oats, 13.50 rubles for barley and the 16.00 rubles for millet. The Decision on the Fixed prices of Oil Seeds Harvested in 1918 and in Proceeding Years set the price 16.18 for a pood of sunflower seed, 25 rubles for flax seed, 20 rubles for hemp seed, 24 rubles for mustard seed, etc. Subsequently the Soviet Government also passed decisions to fix prices of cattle and sheep, beef and mutton, edible and industrial fats, eggs, hay and straw, peas, buckwheat, kidney beans and lentils harvested in 1918 and the proceeding years, prices of hides, flax fibre, pigs, slaughtered hogs, lard and other pig products.

The Government introduced simultaneously fixed wholesale factory prices of manufactured goods and retail prices (25 per cent higher than the wholesale), namely prices of calico, woollens, oil products, metals and metalwares, bread and bakery products, etc.

The methodology of the purchasing and selling prices of farm products

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5 Ibid., No.58, Clause 636, p.663.
6 Ibid, No. 58, Clause 636, p.663.
7 I A pood + 36 lbs.
8 Collection of Statutes and Decisions Adopted by the Workers' and Peasants' Government in 1918 (in a strict sequence of their approval) No.56, Clause 655 and 656; No.61, Clause 667, No.64, Clause 700, No.78, Clause 828; No.85, Clause 872; No.99, Clause 938.
was based on a single model built on a calculation of production outlays per sown dessiatin (2.7 acres) for two seasons (autumn-winter and spring-summer), transportation expenses from a farm to a grain collecting station, and also the grain yield, the availability of grain reserves and price fluctuations in local markets on the eve of the procurement campaign (June). The local bodies of the People's Commissariat for Food and of the Supreme Economic Council took into account all the other existing economic and political conditions in every province. Permission to give bonuses or make discounts of the fixed prices was granted only to the People's Commissariat of Food for its organisational expenses. The selling price was determined on the basis of the purchasing price plus operating and organisational expenses in fixed amounts.

Thus, from the start the Soviet Government sought to regulate price levels and price ratios for farm products and manufactured goods. Its purpose was to stabilise as much as possible the situation in the country gripped by grave economic hardships, to control the spontaneous market forces by restricting the play of prices through price planning. While determining the volume of procurements at fixed prices, the Government took into consideration the need for satisfying the peasants' needs in food and of animal husbandry in fodder so as to preserve a definite minimum for reproduction (Decision of the People's Commissariat for Food dated August 31, 1918, No.62, Clause 683). At the same time the Government took steps to carry out a currency reform, the draft of which was also prepared in 1918, in order to normalise the country's finances and place the exchange of goods between town and country on a stable currency basis. But foreign armed intervention and the Civil War imposed on the country by the counter-revolutionaries who did everything to strangle the young Soviet state, prevented the realisation of these plans and brought in economic chaos and starvation. The Plan for the procurement of grain and other farm produce was frustrated by the sabotage of rich peasants, speculation, and breakdown of the transport system. The Government had to pass a series of decrees, on granting the People's Commissariat for Food emergency powers, to combat the rural bourgeoisie who concealed their grain for purposes of speculation. Having extremely meagre food resources and faced with unrestrained paper money inflation and speculation (in 1918, the index of private prices in 39 provinces in the European part of Russia was nearly ten times, and in Moscow almost twelve times higher than in 1917, while state prices were fixed), the Soviet Government had to introduce the requisitioning of food surpluses, known as the surplus-appropriation system, and the rigid centralised rationing of food to the population. 'The profiteering gentry, as is to be expected,' Lenin wrote at the time, 'get nine times as much out of the worker as the state does for grain procured.'9 The policy of this period (1918-1920), known as 'War Communism', was an extreme and forced measure taken by the state to preserve the revolutionary gains of the working people and to ward off the menace of foreign enslavement.

Immediately after the interventionists were expelled from the country and the counter-revolution suppressed, Lenin advanced the idea of replacing the policy of 'War Communism' by a New Economic Policy (NEP), which was based on a wide use of commodity-money relations in the interests of building socialism, of the principle of material incentives and securing a strong economic alliance between the working class and the peasantry. The introduction of NEP required a flexible approach to the regulation of prices in order to preclude harmful disproportions between prices of manufactured goods and farm products in conditions of free market trade. The surplus-appropriation system was replaced by the tax in kind. By waging a struggle on two fronts—both against the unchecked rise of prices of manufactured goods and against the artificial depression of prices, or against the directly opposed demands for an inordinate inflation of prices of grain and agricultural raw materials, the Communist Party and the Soviet Government pursued a consistent policy of stabilising the home market where private capital played a big role in the initial period of NEP. During the transition to socialism the multi-sectoral economy in which small commodity production prevailed also predetermined the existence of two antagonistic tendencies—the socialist one and the commodity—capitalist one—with their inherent operation of the law of value, the state regulated, the co-operative prices and the prices of private trade formed spontaneously on the market. The struggle between these tendencies also determined the nature of the formation of prices for agricultural products, reflecting the essence of the transition period. In the Government report to the 8th All-Russia Congress of Soviets Lenin said: 'We admit that we are in debt to the peasant. We have had grain from him in return for paper money, and have taken it from him on credit. We must repay that debt, and we shall do so when we have restored our industry. To restore it we need a surplus of agricultural products.'

The fluctuations of production outlays and market prices of farm products depending on the harvest and also the growing prices of, and expenditure for, manufactured goods, produced the so-called 'scissors', a gap in the relationship of these prices. The changed market conditions also influenced the formation of this gap. The index of wholesale prices, calculated by the Central Statistical Board for agricultural products in October, 1922 (1913-1.000) 1.077 and of manufactured goods, 1.411: the retail price index in private trade was 1.220 and 1.960 respectively. By October 1923 the situation had sharply deteriorated. The wholesale price index of farm products fell to 0.888, while that of the wholesale prices of manufactured goods rose to 2.757. The same trend was observed in the private market. The retail price index of farm products fell to 0.920 and that of the retail prices of manufactured goods rose to 2.730. Serious difficulties arose in the sale of a number of manufactured goods consumed by the countryside. The Soviet Government adopted a series of measures designed to improve the

price ratios and to strengthen the alliance between town and country. In 1924-25, it pursued the policy of active planned regulation of the market and prices. Prices of farm products rose perceptibly, creating in certain places the possibility of 'scissors in the reverse'. It was necessary to stabilise the prices of grain, otherwise it would be impossible to carry through the currency reform. Towards the end of February 1924, the Government fixed the following price range—rye from 75 to 85 kopecks a pood, wheat from 1 to 1.6 rubles, and oats from 70 to 80 kopecks. These prices were justified in that period. The crop failure in 1924 sent up grain prices. By 1925 the discrepancy between the prices of farm products and manufactured goods had been largely overcome. In October, the wholesale price index of farm products was 1.556, while that of the wholesale prices of consumer goods was 1.949. The respective figures on the private market were 1.920 and 2.390. The subsequent years witnessed a more or less even trend in the change of indexes.

During this intricate period the regulating role of the state in price formation exerted a big influence on market stabilisation, although it failed to cope with this task to the full because of the limited resources and the general instability of the country's economic situation. The country's industrialisation demanded a substantial increase in food and raw-material resources, which necessitated the expansion of the purchases of cereals and industrial crops and animal products. The capacity of the organised planned market was steadily increasing. Though the state procurement prices were considerably below the market prices, the stability of the former (by years and seasons) substantially influenced the unorganised market. In the spring of 1926 the Government introduced a system of contracts between procurement organisations and producers. In 1926/27 the average procurement prices of grain and some other products were reduced, which upset to some extent their correlation with the prices of industrial crops and animal products and thus complicated the grain procurements.

In 1928/29 the system of contracting cereals, based on the accumulated experience of contracting industrial crops, was widely extended. This most adequately corresponded to the stage of the socialist reorganisation of agriculture on the basis of mass collectivisation. The contract system included the elaboration of prices fixed in the contracts.

The victory of the collective-farm system radically changed the market situation in favour of the organised market. The bulk of food and raw materials were purchased by the state in the socialist sector of the economy (in collective and state farms) at fixed contract prices. The regulating role of the state in the system of purchase prices thus rose considerably. At the same time it preserved the market forms of trade at prices shaped by demand and supply.

The difficulties of the organisational period also laid their imprint on the food supply resulting in the introduction of rationing for a definite period. With comparably stabilised contract prices of farm products, the retail prices

12 Ibid., p.88.
13 Ibid., p.378.
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of manufactured goods tended to rise, creating thereby prerequisites for non-equivalence of exchange. The Government adopted a number of measures stimulating collective-farm trade in local markets in order to improve the supply of foodstuffs, increase the incomes of collective farms and their members and oust profiteers. This was facilitated by the application of the firm plans for obligatory deliveries, with part of the surpluses being sold by the producers on collective-farm markets. Market prices deviated from the prices in the state trading network, which had relatively limited resources of goods that could not cover the increased demand.

In 1932 the Government began to introduce a system of obligatory deliveries first of products of animal husbandry and then also of products of crop husbandry in order to guarantee the formation of centralised food stocks. The prices of grain deliveries to the state were retained at the level of the contract prices. In 1935 they were raised by 10 per cent, and in 1936, owing to the greater demand for wheat, its procurement price was increased by 25 per cent. The prices at which produce was bought over and above the obligatory deliveries were 30 to 40 per cent higher than the procurement prices. In addition, in 1936 the Government instituted bonuses for collective farms for bigger wheat sales, amounting to 100 per cent of the purchase price. In 1935, prices for industrial crops which were procured, as before, under the contract system were raised 3 to 5 times and bonuses were introduced. All this helped to boost the production of industrial crops. Simultaneously, between 1934 and 1937 the retail price index in the collective-farm market decreased substantially, owing to the improved supply to the population through the state and co-operative trading networks. For instance, in 1937 the market price index of grain was 34.4 (1932–100), potatoes 45.2, milk 67.7, butter 59.6, and meat 83.2. With the abolition of the rationing system in 1935, the Government introduced uniform increased state retail prices of foodstuffs. To prevent an infringement of interests of the people, wages and other payments to the population were raised correspondingly.

It should be emphasised that in 1929-1940 the procurement prices of grain rose by 15 per cent on the average, and of animal products by almost 100 per cent. Up to 1940 the retail price index of foodstuffs and consumer goods in state trade tended to rise more quickly (although in some years the prices for certain foods were reduced), which guaranteed the accumulation of resources needed for stepping up the pace of socialist production.

During the Great Patriotic War of 1941-1945 the Soviet Government had to re-introduce the rationing system. The sphere of circulation was clogged with big surpluses of money, the situation being complicated by the forged money issued by the German invaders. The balance between the mass of commodities and the mass of money was thus upset. The retail food price index rose many-fold. Natural ties prevailed in the relations between the collective farms and the state. The procurement and purchase prices which remained at the pre-war level discharged chiefly the functions of redistribution of money for concentrating accumulations to facilitate the successful struggle against the invaders. A currency reform, designed to improve the country's financial position, was carried out in 1947.
Several stages in the planned regulation of price levels and the correlation of prices of farm products and manufactured goods can be singled out in the postwar period. **The first stage covers** the period up to 1953. In the course of this stage the system of the procurement and purchase prices (for collective farms) and delivery prices (for state farms) remained unchanged, while state retail prices of consumer goods were consecutively reduced with a view of raising the people’s purchasing power and improving their standard of living. If we take the 1947 index as 100, by 1953 state retail prices had come down to 33 for foodstuffs and 57 for consumer goods. The colossal requirement in capital investment to restore and develop the war-ravaged economy called for maximum concentration of the surplus product and for its strictly purposeful utilisation. Hence, the procurement and delivery prices in force up to 1953 continued to perform chiefly the functions of redistribution in a changed economic situation and thus met the interests of the national economy. But this violated the principle of material interest and upset cost-accounting relations in agriculture. An objective need arose for a radical revision of procurement and delivery prices, for bringing them into line with the changed production and market conditions.

**The second stage covers** the period between 1953 and 1958 when the procurement and delivery prices of farm products were consistently raised and the norms of obligatory deliveries and payment in kind for the work of machine and tractor stations were put in order. In 1953-1954, the reduction of retail prices of consumer goods was continued, and later they were stabilised. The price index of all agricultural produce procured by the state in 1958 was 2.96 (1952=1), including 6.95 for cereals, 1.43 for industrial crops, 7.89 for potatoes and 5.46 for animal products. The measures adopted by the Central Committee of the C.P.S.U. at its Plenary Meeting in September 1953 gave a big impetus to the economic improvement of the collective and state farms and the expansion of agricultural production. The value of goods exchanged between town and country gradually drew closer together, and the level of labour remuneration and the material interest of collective farmers in increasing labour productivity rose. But the discrepancy between the level of prices of farm produce and manufactured goods was not fully removed. Moreover, there was a plurality of prices, which complicated the system of planned goods exchange. Part of the farms had a low level of profitability or were run at a loss, and this slowed down the rate of reproduction.

**The third stage covers** the period between 1958 and 1965. While re-organising the machine and tractor stations the Government decided to abolish the system of obligatory deliveries and payment in kind for the work done by these stations and introduced a single system of purchases of farm products at prices differentiated by zones. This procedure suited the conditions that arose after the sale of agricultural machinery to the collective farms and had definite advantages over the former, very complicated system of procurements and prices coupled with natural economic relationships. The level of the established purchase prices for a number of products, especially animal products, proved to be inadequate, however. Substantial corrections had to be made subsequently. Moreover, the collective farms invested big
sums, buying machinery and this adversely affected their financial position. The wholesale prices of some industrial goods consumed by the countryside were raised during this period. Subjectivism and miscalculations in the guidance of agriculture also made themselves felt. Changes had to be introduced periodically in the purchase prices of some products. For instance, in 1962 the Government raised the purchase prices of livestock and the retail prices of meat, compensating the loss to the population by reducing the retail prices of sugar and some manufactured goods. In 1963-1964, it also revised the purchase prices of cotton, sugar beet, potatoes, peas and milk and thus eliminated the shortcomings with regard to these crops.

The fourth stage in the formation of the prices of farm products was initiated by the decisions of the Plenary Meeting of the Central Committee of the C.P.S.U. in March 1965. The purchase prices of the main farm products—cereals, sunflower and animal products—were raised; the correlation of prices of some farm products and their zonal differentiation was also improved. This was accompanied by a reduction of wholesale prices of agricultural machinery spare parts and electric power supplied to collective farms. In other words, radical changes were made in the general price system with a view to ensuring a balance and improving the equivalent exchange. Purchases over and above the plan are made by the state at higher prices. As a result collective-farm incomes have risen substantially and this has increased the funds for labour remuneration and accumulation. All this has created favourable economic conditions for providing greater material incentives, introducing guaranteed payment for labour on all collective farms, increasing the fixed and circulating assets to ensure the planned production growth rates. The five-year (1966-1970) has thus accelerated the growth of agriculture and improved its branch structure. As economic prerequisites are created, large specialised farms are organised everywhere along industrial lines on a modern scientific and technological basis (poultry factory-farms, stock fattening units, dairy and other farms). The Plenary Meeting of the Central Committee of the C.P.S.U., held in October 1968, mapped out the course of re-equipping agriculture technically, which involves considerable investments on the part of the state and collective farms. This is the guarantee of attaining high growth rates of agriculture and increasing its economic efficiency, raising labour productivity, reducing the cost and social value of output, which is the objective basis for the creation in the future of requisites for reducing the prices of food and articles made from agricultural raw materials. The need for steadily increasing investments and providing greater material incentives, which is quite possible in highly profitable farms which obtain big gross and net incomes, demands the maintenance of the purchase prices of farm products on a sufficiently high and economically justified level. The periodical adjustments of these prices are designed to raise further the material interest of the farms in expanding production and sales to the state of high quality farm produce for satisfying more fully the growing demand.

With the help of zonal purchase prices the socialist state stimulates the expansion of agricultural production in different soil and climatic conditions. Economically the most expedient location of crops and branches of agri-
culture by regions and improved specialisation and branch pattern of every farm are secured in a planned way. The purpose of the zonal differentiation of purchase prices is to create economic conditions for the planned rates of the extended reproduction of the needed products not only on the best but also on the relatively worse lands, which society brings into economic use under the given development level of productive forces.

The state policy of fixing planned prices also actively regulates prices in the collective-farm market. The higher prices of some farm products purchased by the state over and above the plan ensure their fuller involvement in the planned regulated sphere. The stable relatively low retail prices of foodstuffs largely predetermine the level of market prices.

At the same time the state establishes in a planned way the stable wholesale prices of manufactured goods which determine the technological progress in agriculture—modern machinery, mineral fertilisers, building materials and other goods—and stimulates to the maximum their efficient use by collective and state farms. These prices are organically coordinated with purchase prices and thus ensure the requisite equivalence of the planned goods exchange.

The policy, pursued by the Communist Party and the Soviet Government, of consistently developing the productive forces of the state and collective farms is also aimed at solving another paramount task of communist construction—further improvement of the living standard of the urban and rural population. The transformation of the system of planned prices with the aim of securing an economically-based exchange of products between town and country actively promotes the accomplishment of this major national economic task.

The steadily growing demand for high-quality food-stuffs and raw materials in diverse assortment owing to the growth of the population and its requirements, the expansion of external economic relations and the further improvement of the material and cultural standards of the peasantry, objectively dictates the constant and all-round stimulation of agricultural production. At times disparities arise in the growth rates of labour productivity and of labour remuneration, the increase in productive assets, current outlays, output and incomes. In turn, this may for a time cause a rise in costs and the asset output ratio and an increase of prices. A similar picture has been observed in many countries in recent years, despite the relatively rapid rate of scientific and technological progress. The nature of these processes and their impact on the position of classes and sections of the population is determined by the dominant mode of production and the social system of society.

The economic policy of the socialist state, which wields the decisive instruments of planned financial regulation, is aimed at securing the most rational magnitude and structure of outlays and accordingly at planning prices that would adequately stimulate the expansion of the output society needs, preserving the basically stable state retail prices or even reducing them (provided there are economic conditions for it), prices which directly effect the people's living standard. This price policy thus steadily raises the Soviet people's welfare.
Price Formation in USSR

Frank Shefrin, Canada

Professor Lukinov’s paper makes it clear that in the Soviet Union, as in all modern complex economies, prices play an important part in the guidance of economic activity.

He quotes freely from Lenin and Marx to justify the Soviet price system. I recognize that economic theory has been used and will continue to be used to justify the politics of the economic policies that may be adopted in a country. I was somewhat tempted to fall back on Adam Smith and Alfred Marshall. However, I will leave this type of discussion to the economic theologians.

I am not sure who has been borrowing whose techniques, but both types of economies are having their problems with farm prices and are searching for a solution. The Governments of the Soviet Union and other socialist countries, and those of capitalist countries have had common experiences when dealing with farm prices; they are faced with complaints from their agricultural producers that prices are too low, too inadequate and that the price relationships between commodities do not necessarily reflect the demand/supply relationships. Both types of economies have had to rely on the trial and error technique in their price formation. Neither has a full understanding of the behaviour of farmers as economic agents, and of their responses to price and income incentives. In both instances governments are faced with supply/management problems, only in the case of the Soviet Union the main issue is to increase production, and in the case of the capitalist countries it is how to cope with surpluses.

Having said this, perhaps the time has come, when unlike Don Quixote, we should stop tilting with windmills. As Lukinov points out, whatever method is used in planning prices, once the price has been set and is in force, its economic functions acquire a strictly regulating character. As he says, the farms and their personnel are interested not in the methodology of calculation, but in the level of the price.

For purposes of discussion I can accept the fact that the theory and practice of price formation in the Soviet Union is the most suitable for their political structure. Our interest lies in the operation of the price system its effectiveness, its short-comings, and the evolution of change in both theory and practice. We received too little information on these points. The use of planned prices in the U.S.S.R. now occupies a position of top priority in the basket of policy tools. Price in a Socialist economy however is not an autonomous force arising from a market determination of supply and demand, but is used by central authorities as one of the various tools intended to accomplish economic goals as set out in the plan. As Lukinov points out, under socialism, prices of agricultural products, just as other socially produced goods, are shaped within the national economic price system which is determined according to a single economic plan. The farm prices are also meant to be used by the central planners as instruments for controlling and evaluating the performance of the collective and the state farms with respect to plan fulfillment. I do not know what benchmark is applied to evaluate the
performance of farmers who sell on the approved open market. The paper before us touches very lightly on this aspect of price formation.

At present there are three levels of farm prices in the Soviet Union: one for deliveries to the state under the plan (procurement prices), one for contract deliveries (purchase prices) and one for free market transactions (which is higher than the first two). I was wondering how these three price levels are co-ordinated or integrated. How do they affect specialization of production? Is there a zonal or geographic differentiation of prices at each level? Do the price-cost relationships vary for commodities at each price level? If they do, why?

Professor Lukinov traces the history of price formation in the U.S.S.R. beginning with the Government decree of 1918. From the very start the Soviet Government determined price levels and price ratios for farm products and manufactured goods bought by farmers.

However, it is difficult to judge the effectiveness of the price making institutions in the early years, until 1953 price formation was affected by a continuous period of emergencies. After 1953, prices were used more and more as an incentive measure to obtain the kind and level of production desired by the planner. Thus between 1952 and 1969 agricultural prices increased fourfold, but production only doubled. As a result of the lower increase in agricultural production there has been a further upward movement of prices.

The Soviet Union in its plan for the 1971–75 period will provide for additional increases in prices especially for livestock products, to encourage increased output. In a statement by Mr Brezhnev and printed in Pravda, July 3, 1970 issue, he says ‘We intend to preserve the principle of encouragement of the above-sales of grain (i.e. above the delivery of quotas set) the state will continue to stimulate collective farms and state farms for sales of grain over and above the farm plan by providing a 50 per cent increment to the basic purchase price’. I wonder does this mean a two-price system e.g. for wheat based on determined delivery levels or is it just a straight increase in the price under the guise of a bonus? Why do the planners in the Soviet Union feel that there is need for such a system? Do the farms hold back deliveries? Or do production costs rise with increased output. We also noted in the same speech that there will be substantial increases in the farm prices of livestock and dairy products without raising retail prices. What was the basis for rate of increase?

As I see it, over the past 50 years the government in the Soviet Union has experimented with both total state control and a mix of state control and the open market in its price formation. Over the 50 years it has operated in a sellers’ market, since supplies, except on a regional or seasonal basis have seldom been in excess of demand. If as Lukinov says the government and its central planning agency have mastered the technique of price formation, and progress has been made, why is it still necessary for leading officials in the Soviet Union to have to continue to exhort farmers on state and collective farms to expand production. Is the price incentive inadequate? Where has the planner slipped in his calculations? Perhaps the planner is no more autonomous in his decision making than is the movement of agricultural prices.
Price Formation in USSR

I raise these questions because my concern is not with the political aspects of price formation, but to know why or where the planner erred. The expansion of Soviet agriculture has not been as rapid as the expansion of other sectors of their economy. It would appear that capital investment in agriculture has been less than adequate, and a large labour force is still engaged in agriculture.

Labour productivity in Soviet agriculture has not progressed as rapidly as in other sectors of the country's economy. According to a recent article by the Soviet economist Strumilin, power per worker and labour productivity in agriculture have remained at a much lower level than in industry. Thus in agriculture, between 1913 and 1967, labour productivity increased only 4.5 fold; in transport—8 fold, and in construction—10 fold.

Are these trends due to in part, to the price system or are they errors of judgement by the planner? The questions are raised not in a spirit of criticism, but in an effort to understand the difference in results between the theory outlined in the paper under discussion and the actual reality. I should add that the hiatus between theory and practice is not necessarily restricted to socialist economies.

Professor Lukinov indicates that Soviet agriculture does not suffer from violent price fluctuations. Stability appears to be an accomplished fact. This is understandable since the bulk of the farm produce moves under procurement or purchase prices. Prices are set for a given period. Furthermore the Soviet Union is still a sellers’ market for farm produce. The question that arises is the following: do the planners use the limited open market sector as a safety valve allowing that market to absorb the impact of any price fluctuations, or do stable prices result in production fluctuations? I am not clear from the paper whether the planners allow for short-term or seasonal fluctuations. Has the problem of price flexibility within the time period of the Plan been solved?

It is interesting to note that nowhere in the paper is there any reference to the concept of price elasticity. I also found no reference to the relation between domestic and international agricultural prices in the paper—but referred to in his address—despite the fact that the Soviet Union is an important exporter and importer.

Before closing I would like to compliment Professor Lukinov on his excellent paper. He has within a short paper, outlined in some detail the theory behind farm price formation in the Soviet Union, he has lucidly traced the history of farm prices but he did not touch on some of the issues that still need to be solved. It seems to me, after reading Professor Lukinov's paper, that the central planner is no more infallible than the free market when it comes to price formation.

E. H. Swedborg Sweden

I have studied Professor Lukinov's paper with great interest and have two questions. I am especially interested in regional pricing. First how large are the price variations between regions? Second, are there official statistics of prices of agricultural products available e.g. for wheat and milk.
P. Zhasraj

Mongolia

As an agricultural economist, I listened to the most interesting and scholarly report of Professor Lukinov with the greatest pleasure. I would like to add a few words about the different problems of the theory and practice of price formation. First of all, price formation for agricultural products, in Mongolia as in other socialist countries, is of plan character, but a systematic basis exists for this. In order to make out a plan for prices, one takes into consideration the time variations and the space situation, and a consideration of a range of factors. Hence, supply and demand are an inevitable element in price formation in Mongolia, and they are closely connected with the main instruments of price policy in a socialist country. All this creates a reliable guarantee for the further development of the course of agricultural progress and the growth of the whole economy in general.

There is something else I would like to bring forward. In the planned price of agricultural produce, one must take into consideration the attitude to market necessities and consumer necessities. From my own experience, analysis depends heavily on the correctness of data which has been collected in process of local assessments for the correct prices. We take into consideration the details shown in the returns gathered on the basis of economic analysis in calculation for all inputs. A most important factor in arriving at the correct initial prices in our country is the availability of correct plan and the correct assessment of the necessities required by the people.

Alec Nove U.K.

In the very short time available I can, of course, only touch inadequately on one or two points. I must say, once again, that irrationalities in agricultural prices are well known in the West. In some parts of the Scottish highlands and islands it is sometimes said that the farmers cultivate not crops but subsidies. However, I think that the presentation of Prof. Lukinov was interesting and valuable. I am sure that in what he describes as the first stage of Soviet agricultural price formation procurement prices were a means of organising capital accumulation to finance industrial development and procurement prices could be treated as a form of tax which bore absolutely no relationship to costs and was not intended to have any. There are exceptions to this. For example the price of cotton did bear some relationship to costs but obviously the prices for basic agricultural products were a means of organising resources for urgent purposes outside agriculture.

The ‘next phase’, where prices were greatly increased, is a confused one to analyse, because although prices went up, incomes went up, investments went up, no logical relationship emerged between prices and costs of particular products. Just to quote one example, from as recently as 1962, according to published Soviet articles the profitability rate for crops was 63% for livestock products minus 20%. Basically I think this dis-equilibrium between costs and prices has been probably put right, (I say probably because we haven’t yet got
the figures) as recently as July 1970, and I think this point might be emphasised. Having emphasised it, is it worth also mentioning the consequence of doing this without altering retail prices. As far as I can see, the livestock subsidy in the Soviet budget next year is probably 10 milliard roubles or more—about 11 billion American dollars, an enormous sum. I would be very grateful to hear if my calculations are wrong. Then comes of course the question I cannot explore that if you have such a relationship between costs, prices and demand—and indeed, nobody mentioned income elasticity of demand except the excellent discussant but then is this the correct way to cope with a situation which is, of course, due—Mr Lukinov did mention this in his discussion—due to what he calls an unequal development of technique and costs by sectors of which, of course he is very well aware.

B. Michev Bulgaria

The basic principles of transformation of agricultural produce are the same for all Socialist countries. That is why I want to refer only to two points or problems which we are trying to solve in Bulgaria with the help of pricing. The first objective is to use the prices in order to increase the material incentive for the peasantry. How is this expressed? It is of course through following the process of profitability of all goods purchased by the state. So all the goods purchased from the co-operatives must be on a profitable basis for the farmers. (Then there is differentiation of the purchase prices by season and by the quality of the goods.) Thus we have given incentives for the production of the goods required.

The second problem is to use prices to create equal economic conditions for the whole body of co-operatives of the country. We attain this by means of the so-called balance, or additional, prices added to the fixed basic prices. Of course, to solve this very important social economic problem only with the help of prices is quite impossible. We use, too, a form of taxation on incomes which is differential in certain respects. This simultaneous utilisation of price and taxation gives a good chance to put all the co-operatives in line with respect to economic conditions.

In this connection I want to ask this question, 'How is the problem solved in capitalist countries'. We look to the representatives of capitalist countries for some experience and await with great attention their speeches. In the discussion group on the subject much was said about subsidies and free markets in the capitalist countries. At the same time it was said that one third of the population of the world is underfed. Is it not possible, given the price system, to use these surpluses to help those who are underfed.

E. S. Karnaukchova U.S.S.R.

We have discussed the problem of prices of agricultural produce at the discussion groups. We have discussed the structure of the purchasing prices at wholesale and retail and their relationships. Here I would like to speak in the
capacity of a scientific research worker and indicate the elements in a scientific evaluation of this problem. In the Soviet Union the prices of farm produce are mutually fixed in the interest of the producers and consumers and therefore, attention is constantly paid to this problem of prices fixed for agricultural produce. The policy towards purchasing prices is based on sound scientific basis; as was shown in the paper of Professor Lukinov the methodological basis is the theory of labour. According to this, the price is fixed by the level of social inputs. Radical changes in cost would arise from radical changes in the technology of agricultural production but these changes do not take place very often. That is why to attain these objectives it is necessary to determine the level of the social input and also priority goals, and to assess by economic analysis the necessary adjustments in prices necessary for the given stage of development.

Professor Lukinov, in reply

First I should like to reply to the questions put by the representative from Sweden, Mr Swedborg, and the representative from Great Britain, Mr Nove—do I have any actual figures on the level and movements of prices for agricultural products in the U.S.S.R.?

These figures are published in our reference books and it seems senseless to me to take up our limited amount of time with reading statistics. You can all see them if you wish.

Mr Nove, unfortunately, spoke very quickly and possible the oral translation was not as accurate as it might have been, but he introduced calculations he had made concerning state subsidies on purchase prices of animal products involving 10,000 million roubles. I don't know Mr Nove's source of information or the method of calculation which he used, so I cannot comment on their reliability. Obviously they are untrue because such subsidies are only paid on the purchases of cattle and they are paid for out of profits from other highly profitable branches of agriculture. Because of the differences in scientific and technical advance in the different branches of agriculture, which I mentioned in my paper, the amounts and structure of costs per unit of production are unequal. This is why appropriate planning control is unavoidable. My main critic, Dr F. Shefrin, expressed a wish to hear me about problems of the elasticity of prices and also on the relationship between home and export (external) prices. This, I think, is a specialist question which demands close examination. It can hardly be answered within the limits of the rigid schedule which a chairman must so carefully follow.

In conclusion, allow me to thank Mr Shefrin for the work he has put in in reviewing my report and also the representatives of Bulgaria, Mongolia, the United Kingdom, Sweden and Professor E. Karnaukhova (U.S.S.R.), who have taken part in the discussion of my report.