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THE LAW ON COOPERATIVES, RETAIL FOOD PRICES,

AND THE FARM FINANCIAL CRISIS IN THE U.S.S.R.

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The Law on Cooperatives, Retail Food Prices, and the Farm Financial Crisis

Karen M. Brooks[1]

The poor performance of the Soviet economy in 1987 was followed in early 1988 by changes in agricultural policy more fundamental than any since collectivization. Under the new Law on Cooperatives, collective farms [kolkhozy] have the legal right to decide what to produce, how to manage their assets, and to whom to sell. They can rent assets in or out on long term leases and enter into contractual relations both with farm members and nonmembers. Collective farms make their own plans and can sell output to any purchaser. They can voluntarily contract with procurement organs who, in turn, use farms' deliveries to fulfill their own state orders, but the kolkhozy, themselves, are not legally required to take on state orders. Marginal cost pricing, redefinition of price zones, and explicit payments for land use will be introduced in 1990/91. State farms reorganized as amalgamations of smaller cooperatives will operate according to the Law on Cooperatives, while those that remain sovkhozy [state farms] will function under the New Law on the Enterprise, with state orders.

These provisions are a fundamental departure from the limited changes in earlier agricultural decrees during Gorbachev's tenure. Furthermore, rental [arendnye] contracts between farm administrators and family units or small groups of workers are being promoted instead of the more limited earlier collective contracts. Under the Law on Cooperatives, these smaller contracting units may, with the farm's permission, become independent cooperatives in their own right. This is a modern echo of Stolypin's reform of 1906-1911, which allowed enterprising peasants to move beyond the constraints that communal land tenure placed on productivity and initiative.

Western economists observing the progress of reform in the Soviet Union often express puzzlement that the Soviets have not followed the "agriculture first" strategy that seems to have worked so well in China. The first question put to Soviet participants in the Joint Soviet Economy Roundtable in December, 1987, was 'Why not take agriculture first, instead of starting with industry--the hardest sector of all?' (Aganbegyan, 1987, p. 285). The answers from several Soviet participants included: 1) We did start first with agriculture by establishing Gosagroprom and encouraging introduction of the collective contract; 2) Soviet agriculture is less self sufficient than Chinese agriculture, and more dependent on the rest of the economy for supply of inputs and processing of output, so that reform at the farm level cannot be successful without changes in industry; and 3) We cannot postpone industrial reform to wait for improvement in agriculture.

The second argument is a strong one; the interlinkage between agriculture and the rest of the Soviet economy is much greater than was the case prior to the Chinese reform of the late 1970s. Changes in incentives for the work force can accomplish only part of the needed increase in productivity. Much must come from better performance of off farm suppliers of inputs and those who work in processing, transport, and retailing. Yet potential gains from improved incentives provided for in the cooperative legislation and the new rental contracts are significant.

What happened in 1987 that brought land rent, long term leasing, quasi-hired labor, marginal cost pricing, and bankruptcy into the common parlance of agricultural policy?

One development was the poor offering to consumers despite a good grain harvest in 1987. Consumers see little immediate benefit from good grain harvests, since grain for food has been in adequate supply for years. Deficits in grain for feed affect the trade balance, costs of production for meat, and to a lesser extent, direct availability of dairy products. Only in extreme years will consumers be affected directly and immediately by the size of the grain harvest. The good harvest of 1987 thus, while beneficial to the economy and morale of perestroika, did little to reduce perceived shortages. Meat production increased 6% (4% for industrially processed meat), due both to more ample feed and culling to reduce herd size. Improved supplies of meat were less noticeable than the 25% drop in production of fruit, 15% reduction in the potato crop, and slight decrease in vegetables. Despite two good harvests in a row, improvements in food supply were so modest as to be hardly noticeable, and supplies of fruits and vegetables deteriorated.

Consumers' experiences in grocery stores in 1987 thus were not good, but neither were they so bad as to trigger a major reassessment of agricultural policy. The more acute indicators of distress in 1987 were in the industrial sector. According to analysis by PlanEcon, growth of GDP fell to 3.3% in 1987 compared to 4.5% in 1986 (Vanous, 1988, p. 1). Although the objectives of the reform require redirection of investment from plant and structures to equipment and machinery, new projects and incomplete construction continued to grow in 1987. The financing of the reform is inadequate to support both perestroika [restructuring] and uskorenie [acceleration]. Nikolai Shmelev has argued that traditional sources of budget revenue were "clearly inadequate" for the task of modernizing Soviet industry.

The agroindustrial complex contributes about 12% of the traditional revenues of the Soviet state budget, but it absorbs about 25%, according to V. Semenov, Vice Minister of Finance of the USSR, and a noted expert on agricultural finance (Semenov, 1987, p. 31). The financial burden of agriculture on the state budget has been heavy and growing since the price increase of January 1, 1983. Furthermore, the total burden of agriculture is only partially captured by the budgetary accounts, since uncollectible agricultural debts held by Gosbank limit financing of industrial modernization. When these debts are written off, they appear in the budget, but until they are formally forgiven they remain in the Gosbank accounts (Semenov, 1985, p.13). The heavy financial burden of agriculture and the vulnerability of the industrial reform program may have done more to bring fundamental agricultural reform than shortages in 1987 of strawberries, plums, and potatoes.

If deteriorating farm finances and increasing competition for investment funds brought the Law on Cooperatives, then the objective of the new agricultural policy is to make farms less dependent on state subsidies and loans without sacrificing output. The measure of success will be not so much increased output, but better farm finances that release funds for investment in industry. Lower costs of production, higher budgetary revenues through land rent and income and profit taxes, lower purchase prices by restricting payments of premia for financially weak farms, and transfer of debt from the state budget (where it ends up if uncollectible) to other agents in the economy would free budgetary funds for higher priority investments.

Greater latitude to use farm resources to generate revenue and higher productivity expected from new contracting arrangements are intended to make the farms economically viable and rural incomes sustainable without the high subsidies currently needed. The newer forms of the collective contract, particularly "rental" [arendnye] contracts and family contracts do not have the commitment to guaranteed wages that necessitated much of the subsidy and credit in the past. Financially weak sovkhozy are being encouraged to reorganize as cooperatives. In a recently reported sovkhoz reorganization, workers raised new capital by buying bonds with a 5% dividend that can be marketed, inherited, or redeemed on demand ("Sovkhoz prodaet," 1988, p. 10). Another sovkhoz near Moscow issued bonds paying 6% annually. According to the report, the sovkhoz at the time of issue had no prior objectives as to the size of issue or what to do with the money raised. Demand for the bonds was unexpectedly large and the sovkhoz had difficulty spending the funds productively, since wholesale trade in construction materials and equipment is not yet functioning (Sel'skaia zhizn', June 7, 1988, p. 2). A heavily indebted collective farm in Riazan' province was acquired by the enterprise Riazan'avtotrans to function as a food producing subsidiary of the industrial enterprise. The industrial partner assumed assets, all debts, and pending state orders for output (Sel'skaia zhizn', June 10, 1988). The benefit of this new form of "sheftsvo" [involuntary assistance that urban enterprises give to farms in need] to industrial partners is questionable, since under the New Law on the Enterprise industrial firms are under pressure to close rather than acquire unprofitable divisions.

New sources for financing state farms, redistribution of the burden of agricultural debt, and greater financial discipline in the collective sector indicate a new resolve to cap and reduce the growing agricultural subsidy. In his commentary on the Draft Law in May of 1988, N. I. Ryzhkov stressed the financial independence of cooperatives: "The cooperative is a financially independent [samookupaemoe] enterprise. It cannot--it is not able--to exist if it operates at a loss or with inadequate return. On the strength of this it is vitally necessary that each cooperative have a structure of production that is economically sound. . . . After all, the state is not responsible for the activities of any form of cooperative" ("O roli,", 1988, p. 7).

The Law on Cooperatives

The Law on Cooperatives was introduced in draft form in March of 1988, and in final form in June of 1988 to take effect July 1. The law sets out rules for the functioning of the cooperative sector, including consumers' and producers' cooperatives. Under the Law, the collective farm is a particular kind of producers' cooperative and part of the cooperative sector. Collective farms, like all cooperatives, are subject to the general provisions of the Law on Cooperatives, but a special section stipulates the particular rights and obligations of agricultural producers' cooperatives.

Kolkhozy are empowered to engage in all legal productive activities in addition to agriculture. They have broad rights to rent assets in or out, on leases of up to fifteen years by entering into contractual relations with people who may or may not be farm members. Farms are encouraged to enter into "rental" [arendnye] and other forms of collective contracts with small groups of farm members, including family units, and also with people who are not farm members. The right to rent land and equipment to individuals who are not farm members and enter into other contractual relations with nonmembers effectively sidesteps the prohibition on hired labor, and could allow more effective functioning of local labor markets.

The final text issued in June of 1988 differs in several important ways from the draft of March, 1988. One of these is the autonomy granted to farms in planning and marketing decisions. Collective farms will make their own five year and annual plans. According to the draft law, delivery contracts with procurement organs were to serve as the basis for farms' plans, and these contracts, in turn, were to be consistent with state orders of the procurement organs ("Proekt zakon," Article 31:2.) The farms would thus have remained in the subordinate position they have traditionally held in relation to the procurement organs, and would have essentially been subject to state orders. In the final text, farms have the explicit right to sell to any buyer. The procurement organs must fill their own state orders by providing incentives for farms to deliver (Zakon, Article 34:2).

This provision may have an immediate effect for products that need little processing; it will have little impact on processed products, such as most grains, oilseeds, sugar beets, and fibers unless cooperatives in processing compete with the state. Even for fruits and vegetables, the effect will depend on implementation of the law. Farms were granted the right in 1986 to market 30% of planned sales of vegetables, fruits, and selected other products in collective farm markets and credit these sales toward plan fulfillment, but few farms took advantage of the right.[2]

The final law also differs from the draft in its provision that collective contract brigades may, with permission of the farm management, become independent cooperatives ("Zakon," Article 33:4). They could thus make planning and marketing decisions independently of farm plans and marketing commitments.

The Size of the Agricultural Subsidy

The fact that Soviet agriculture is subsidized is not in itself noteworthy. The loud and acrimonious discussions about agricultural subsidies institutionalized in the ongoing renegotiation of agriculture under the GATT are ready reminders that the USSR is not alone with its subsidy. The Soviet Union could even in some quarters earn credit as a country that is willing unilaterally to reduce its agricultural subsidy, and has tried, albeit unsuccessfully, for years to do so.

The net budgetary flow of resources into agriculture, including production, processing, and transport of food and fiber, is large. V. Semenov, Vice Minister of Finance of the USSR, and an expert on agricultural finance writes that in 1986 agriculture contributed 50 billion rubles to the budget through profit tax, income tax from collective farms, and turnover tax (Semenov, 1987, p. 31). Much of this was from turnover tax on alcohol and tobacco. Collective farms contributed only 1.2 billion rubles in income tax (Narkhoz, 1987, p. 628), and this was less than the earnings from the tax on bachelors and spinsters. The rate of profitability in the state farm sector was somewhat lower than in the collective on about the same value of output.

In the same year, according to Semenov, the budgetary allocation to the agroindustrial complex was 103 billion rubles, both for investment and to cover the price subsidy. Agriculture thus contributes 12% and absorbs about 25% of the state budget. With declining sales of alcohol and rising food production, payments from the budget rise faster than contributions, and the subsidy grows. The budgetary costs of subsidies are not a good measure of welfare costs to society, but without reliable estimates of consumer and producer surplus, conventional welfare accounting is not possible.

The agricultural budgetary subsidy is paid in several forms. The state makes direct payments for projects in rural infrastructure, such as the 3.3 billion rubles allotted annually since 1982 for rural roads and infrastructure. Farms pay discounted prices for purchase of tractors, mineral fertilizer, and agricultural chemicals, and the budget covers the difference between the farm price and the factory price. The state makes direct grants for investment and current expenses. Between 1983 and 1985, of the total outlays of state farms for all purposes, 84.4% came from farm earnings (at subsidized prices), 4.3% from short and long term credits, mostly from Gosbank, and 11.3% direct payments from the budget. In the collective farm sector the percentages were respectively 88.3, 7.1, and 4.6. Collective farms have traditionally had less access to direct budgetary payments and have made more use of credit, although grants were increased as part of the Food Program.

The largest portion of the subsidy is used to cover the difference between the costs the state incurs in procuring, processing, and transporting agricultural products, and the receipts of state stores from retail trade in food. Farm level procurement prices have increased regularly since 1960 to meet rising costs of production in agriculture, but retail prices of many food items have remained stable in state stores since 1962. The growing difference between state costs and receipts has been covered by a direct subsidy. Recent data on the subsidy are more complete than earlier data, but generally confirm calculations for the 1970s made by Vladimir Treml (Treml, 1978). The size of the price subsidy over time and its breakdown by commodity are shown in Table 1.

Table 1
State Subsidy to Cover Price Differences
(billion current rubles)

	1960 r.	1965 r.	1970 r.	1975 r.	1980 r.	1985r.	1986r.
Meat and Poultry	1,4	2,8	8,8	12,2	14,0	26,6	27,8
Fish	0,1	0,1	0,2	0,2	0,2	2,2	1,8
Milk	-	-	2,1	4,0	7,5	18,9	19,2
Grain	_	0,3	0,8	0,6	0,8	4,4	4,4
Potatoes, Vegetables, canned goods	-	-	0,2	0,7	1,4	3,0	3,7
Sugar	-	-	-	-	_	1,0	1,2
Total	1,5	3,2	12,1	19,7	23,9	56,0	57,9
As % Payments of State Budget	2,1	3,2	7,8	9,2	8,1	14,5	14,0

Source: Semenov, "Sovershenstvovanie finansovogo mekhanizma agropromyshlennogo kompleksa," Ekonomika sel'skogo khoziaistva, No. 9, 1987, p. 35.

The 58 billion rubles used to cover differences between farm and retail prices for output in 1986 are often referred to as "the agricultural subsidy." Payments to cover subsidies for agricultural machinery and chemicals in 1986 were about 4 billion rubles. V. Pavlov, Chairman of Goskomtsen indicated in December, 1987 that budgetary allocations to cover price differences for both inputs and output in 1988 were 73.4 billion rubles, suggesting that the growth in the subsidy is accelerating. (Sel'skaia zhizn', December 2, 1987). Success in the effort to offer more meat to consumers automatically raises the subsidy, and the large increase in 1987 and 1988 reflects the growth in meat production.

A fuller accounting of the budgetary subsidy requires addition of other direct payments, and subtraction of budgetary receipts to get the 53 billion rubles in net payments for 1986 that Semenov presents. Edward Cook has attempted to reconstruct flows between the agro-industrial complex and the state budget for the period 1975-86, and finds that earnings from turnover tax and to a lesser degree from profit tax more than offset the price subsidy and other direct payments to agriculture until the price increases of 1982 took effect in January, 1983. After

1983 the higher prices and increasing proportion of farms that qualified for special price bonuses coupled with declining earnings from alcohol after 1985 to create the large net flows (53 billion rubles) to agriculture that Semenov cites for 1986 (Cook, 1988, p. 17-19). According to Semenov, between 1983 and 1986, two thirds of farms received bonus prices; a large proportion of agricultural output is procured at higher than base prices (Semenov, 1987, p. 33).

The data on subsidies do not include farm indebtedness unless bad debts are written off the bank accounts by transfers from the budget. When the Food Program of 1982 went into effect in 1983, 9.7 billion rubles of bad debts were written off, and 11.1 billion rubles rescheduled for repayment to begin in 1991. According to Semenov, the total debt of farms and other enterprises in the agro-industrial complex in 1987 was 200 billion rubles, 74 billion of which was past due and rescheduled for payment between 1988-2000. Farm debt increased by ten billion rubles after the price increases of 1983. Farm indebtedness and delayed repayment thus contribute to the financial constraints that agriculture places on perestroika in industry.

Indebtedness does not appear in the subsidy figures unless bad debts are written off, but the amount rescheduled in 1987 dwarfs the 11.1 billion rubles postponed in 1982, and suggests a farm financial crisis that has grown despite the growth in direct subsidy.

The new law on cooperatives speaks directly to the problem of farm indebtedness as a source of resources flowing into agriculture. Farm credit for the collective sector was eased as part of the Food Program of 1982, and is now to be tightened up. The combination of less generous lending, lower costs of production passed on to the state through rental payments and somewhat higher earnings from profits, and a moderate increase in retail prices may bring the agricultural budgetary accounts into closer balance without raising retail prices fully to cover costs of production.

The financial restructuring of agriculture will be difficult in the next few years. The switchover to fuller cost accounting at the farm level is not likely to succeed unless much of the inherited debt is written off, or passed to new partners through merger of poor farms with financially stronger industrial enterprises in exchange for preferential access to food. The farm financial crisis should be seen as another dimension of the subsidy problem.

Subsidized Food: Who Gains and How Much?

The Law on Cooperatives reflects a new resolve to reduce the agricultural subsidy, and introduces changes in resource use intended to accomplish the financial restructuring without sacrificing output, and without transferring the full cost to consumers. This could be very welcome news to consumers who have been reminded often by Gorbachev that food subsidies are costly and must be reduced. Until recently an increase in retail food prices has been the solution to the subsidy problem most often offered in discussion. Consumers have been told that food prices will go up, and that they will be compensated for the increase with an as yet unspecified increase in wages, pensions, stipends, and/or a family allowance based on need. The financial restructuring begun in 1988 suggests that the subsidy problem will be attacked on the supply side, as well as the demand side, and the resulting increases in retail food prices can be less than if the demand side carried the whole burden of adjustment.

Gorbachev opened the question of agricultural subsidies in his speech in Tselinograd in September, 1985, in which he stated, "Demand for some products exceeds supply. This is connected with the fact that cash incomes in our country have grown faster than food production. At the same time, the state prices for basic products have remained virtually unchanged for two decades. For instance, meat is sold in our stores at prices that are only one-third to one-half the outlays on its production" (Pravda, September 11, 1985, p.1). He went on to note that low prices encouraged waste of products that were in short supply.

Gorbachev's comment was the first indication that a change in retail food pricing was being entertained by political leaders. Subsequent discussion has made consumers aware of the magnitude of the problem; the prices that consumers pay on average for all foods except alcoholic beverages cover only two thirds of the full costs of buying, processing, transporting, and retailing food. The state pays the difference in direct subsidy, which is only part of the full agricultural subsidy, since inputs are subsidized, and the state makes direct grants and subsidized loans to agriculture.

Gorbachev has announced that retail food prices will be included in the general price reform of 1990-91, but that price changes will be compensated to maintain living standards. In October, 1987, in a speech in Murmansk, he said, "The State pays collective and state farms 50% to 100% more for output delivered, first of all animal-husbandry output, than the price at which this output is sold to the population. In this connection, last year subsidies for the sale of meat and milk totaled 57 billion rubles. But many people neither feel nor know about this situation.... Therefore, no one economizes on foodstuffs or takes a thrifty attitude toward them. If we take the price of bread in the Soviet Union as 1, its price is 5.5 times higher in the United States of America, 3.6 times higher in Great Britain, 4.1 times higher in France, 3.6 times higher in the FRG, and 1.5 times higher in Hungary.... So there is a problem, and it must be solved. But an approach must be found that will not lower the working people's living standard." (Pravda and Izvestia, Oct.2, 1987.)

Discussions of agricultural pricing have implied that higher retail prices will be the main instrument for reducing the subsidy, and have generated concern about the magnitude of the impending price increases. For example, D. M. Kazakevich, an economist with the Siberian section of the Academy of Sciences argued in January of 1986 that food prices should be raised to cover full costs of production, transport, processing, and retailing (Kazakevich, 1986, p.33-43). Nikolai Shmelyov has argued, "In the final analysis, why should a person underpay for meat and overpay for textiles and footwear, rather than buy them all at real prices? (Shmelyov, 1987, pp. 142-158.) Readers reacting to Kazakevich's argument expressed apprehension about compensation and questioned whether the full adjustment need come from consumers; could producers not bring down high costs of production? The Law on Cooperatives suggests new efforts to contain the subsidy on the supply side, perhaps in recognition that large price increases are not feasible until some tangible benefits of perestroika can be demonstrated.

Proponents of higher retail food prices have argued that prices should both recover costs of production and processing, and bring equilibrium to food markets now in chronic and ubiquitous disequilibrium. The dual goals are in conflict with the consumption targets of the Food Program for many commodities, and commitment to the consumption targets remains strong. The commodity breakdown of the price subsidy shown in Table 1 indicates that about 80% of it is for meat and milk. If retail prices for meat and dairy products were raised to recover high costs of production, excess supply would very likely appear at current levels of consumption of 63 kilograms of meat annually per capita. The targeted quantity of 70 kilograms per capita by 1990 would go unsold if offered to consumers at full unsubsidized cost.

The disequilibrium in markets other than meat and dairy is probably not as great. Stories of rural people feeding bread to pigs and pictures of children playing soccer with bread are correctly indicative of distortions in grain pricing, but the absolute magnitude of subsidies in other markets is small compared to meat and milk.

Different meat and milk products are subsidized at different rates, as can be seen in the following figures from 1985:

Table 2
Retail Prices and State Cost Per Kilogram
of Animal Products (rubles, 1985)

	Poultry	Beef	Lamb	Pork	Milk	Butter
Average Retail Prices	2,57	1,75	1,42	1,84	0,25	3,38
State Cost	2,92	5,42	4,86	3,51	0,45	8,43
Excess of state costs over retail price	.35	3,67	3,44	1,67	0,20	5,05

Source: V. Semenov, "Sovershenstvovanie finansovogo mekhanizma agropromyshlennogo kompleksa," Ekonomika sel'skogo khoziaistva 9, 1987 p. 34.

Price policies used to implement the subsidy are highly regressive, and have historically redistributed income toward wealthier urban residents of cities of European USSR and away from poorer rural people and those in Noneuropean parts of the country. Gorbachev has recognized the regressive nature of the subsidies: "Families with large incomes consume more meat and milk, and, consequently, they make greater use of these subsidies" (Pravda and Izvestia, Oct. 2, 1987). According to A. Komin, Vice Chairman of Goskomtsen, budget surveys indicate that families with per capita incomes less than 50 rubles pay 20% to 30% more for meat than families with per capita incomes of 150 rubles per month, because the latter have better access to supplies at official state prices (Izvestiia, date).

Food consumption differs by region in the USSR, as in most large countries. The age structure of the population, regional disparities in income, historic dietary habits, and difference in the availability of food products contribute to differences in food consumption. The data on per capita meat consumption by republic are incomplete, but indicate a wide dispersion around the national average of 63 kilograms annually. Consumption in the wealthier Baltic Republics is as high as 80 kilograms per capita, while in Central Asia, where incomes are lower and families have more children, consumption is approximately 30 kilos per capita. Partial data on meat consumption are shown in Table 3. Regional disparities in distribution of the subsidy have been recognized in Soviet commentaries; "a resident of Leningrad receives through subsidies 2.5 times more than a resident of Balashov [Lower Volga region of the RSFSR] ("Vokrug problemy," 1986, p. 140).

Table 3

Meat Consumption

(Kg/cap)

	1975	1980	1985
USSR	57	58	61
Estonia	80	80	-
Lithuania	76	-	-
Latvia	-	-	-
Belorussia	62	61	70
RSFSR	60	62	67
Ukraine	60	60	66
Kazakhstan	-	53	52
Moldavia	46	49	54
Georgia	-	-	-
Armenia	-	-	-
Azerbaidzhan	32	32	-
Tadzhikistan	-	-	-
Turkmenia	47	-	-
Uzbekistan	29		-
Kirghizia	32	29	-

Source: Narkhoz, various republics and years.

The income transfers associated with the price subsidy come not from consuming meat, but from buying it in state stores. Meat sold outside the state network is not subsidized except through input costs. On average throughout the country just over one quarter of the meat consumed is purchased outside of the state network, at collective farm markets, intravillage markets, or consumed by its producers. Sales of food in state outlets are greater in urban than rural areas, and this is particularly true for meat and milk.

The commitment to keep retail prices constant while both incomes and procurement prices increased has thus benefitted those who buy more than average quantities of meat and milk at state prices. Most of these are urban residents of European parts of the USSR with higher than average incomes. The Soviet experience is not unique; nontargeted food subsidies are usually regressive, particularly if they are applied to commodities with high income elasticities, such as animal products. This is true despite the often stated objectives of food subsidy programs to benefit the poor by lowering the cost of a basic necessity. The poor do gain, but the rich gain more from nontargeted subsidy programs. Subsidy programs that benefit the poor more than the rich are those targeted through eligibility requirements.

The real benefits to the recipients of the subsidy are less than the budgetary costs. The state may pay 73 billion rubles in subsidy, but consumers receive considerably less than that amount. In the case of beef, for example, full state costs are about 5.50 per kilo. Base procurement prices for beef range from 1450 rubles per ton (live weight) in the Ukraine, Moldavia, and Kirgizia to 2000 rubles per ton (live weight) in Armenia, and most beef is probably bought at a base price of 1450 to 1600 rubles. Data in the 1987 Armenian Narkhoz indicate a 50% yield of meat, or a base farm price for meat of about 3000 rubles. Added on to the base price are bonuses for quality, quantity, and financial need, suggesting that the farm gate price for beef (meat) may on average be about 4 rubles per kilo. This leaves a rather small margin for processing, transport, and storage, and probably explains why little service is embodied in the final product.

At 1.75 rubles retail, beef is in excess demand. Rationing is accomplished either directly, through distribution at the workplace, or indirectly, through queueing, bribes, tied sales, and other mechanisms that bring the market to equilibrium. The price for beef on collective farm markets in Moscow in 1987 was between 5.50 and 7 rubles per kilo, and the state price for beef in Moscow (second price zone) is 2 rubles per kilo. According to data released by Goskomstat in November, 1987, the average price of beef in collective farm markets in 264 cities was 4.89 rubles per kilo in 1987. Market prices for other foods are given in Table 4.[3]

Table 4

Average Food Prices in Urban Collective Farm Markets in September (in 264 cities)

(rubles and kopecks per kilo)

	1986 r.	1987 r. total	1987 r., of which: Collective and State farms	1987 r., of which: Kolkhozniki and other citizens	State Prices Price Zone II
potatoes	0-52	0-58	0-33	0-59	0-10
cabbage	0-54	0-66	0-28	0-74	0-12
onions	0-74	0-69	0-43	0-71	0-70
green onions	1-95	1-96	0-50	2-00	0-50
carrots	0-76	0-80	0-35	0-82	0-20
cucumber	1-30	1-28	0-71	1-35	1-00
tomatoes	0-80	0-94	0-34	0-99	0-50
dill	2-30	2-31	0-72	2-34	0-60
parsley	2-30	2-36	0-73	2-38	0-60
garlic	3-04	3-10	2-03	3-10	2-00
apples	1-14	1-45	0-53	1-50	0-70
beef	4-86	4-89	3-35	4-93	2-00
lamb	5-10	5-14	2-97	5-17	1-90
pork	4-46	4-52	3-49	4-53	2-10
salt pork	4-14	4-07	2-47	4-07	2-40
animal fat	7-42	8-33	7-50	8-33	3-60

Source: Ekonomicheskaia gazeta, No. 45, November, 1987, p. 11.

If the quality difference between state and collective farm markets is taken into account, an equilibrium price on the collective farm market of 4.50 to 5 rubles per kilo for beef would suggest a market clearing price in the state sector of between 3 and 3.50 rubles per kilo. In a recent account of meat markets in Omsk oblast', a journalist reported that half of the meat consumed comes from the private sector and subsidiary production of factories. Supplies of meat on collective farm markets in Omsk are reported to be plentiful, and the prevailing price is 3.50 rubles per kilo. ("Pochemu pustuiut," p. 10) Market clearing prices will vary both with supply and demand, but a level of 3 to 3.50 rubles per kilo for the central industrial region seems reasonable.

Consumers pay approximately the market clearing price, giving 1.75 rubles directly to the state, and dividing the remaining 1.25 to 1.75 rubles between direct and indirect payments to employees of retail trade, and the deadweight loss of standing in line. The additional payments to the retail network are in the form of tied sales, short weights, substandard quality, and explicit gifts and bribes. The difference between 1.75 per kilo and the market clearing price should not be considered a benefit to consumers, since consumers pay the higher price. If retail prices are raised to market clearing levels, consumers would need very little if any compensation to be equally well off after the change. Employees in retail trade, however, would lose the chance to earn income "on the side", and could be compensated through change in the wage structure in retail trade.

The real gain that consumers realize from the subsidy program is the addition to consumer surplus generated by the opportunity to buy beef at market clearing prices instead of the high supply price that the government pays.

When retail prices are increased to reduce the subsidy, two steps in the price adjustment are important. The move from 1.75 rubles to about 3 rubles (assumed to clear markets of existing quantities) can be made with little or no diminution in consumer welfare, and little need for compensation. A token compensation and ready availability of the product at posted prices would probably suffice. Further adjustment in the range between market clearing prices and full state costs would create excess supply and undercut the consumption goals of the Food Program. The income compensation necessary to leave consumers equally well off if beef prices went all the way up to 5.50 per kilo would be very great. An even larger compensation would be necessary to induce consumers to buy currently available quantities of meat at that price.

Thus the thorny issue of how to raise food prices without reducing standards of living is both easier and more difficult than it appears. Prices can be raised to market clearing levels with little need for compensation. Very high costs of production that exceed demand prices for a target level of consumption cannot be recovered from consumers without causing excess supply that undermines the consumption goals. The goal of the Food Program is to offer 70 kilos of meat per capita in 1990. If retail prices are kept as low as they are today, meeting this target will not be perceived as a significant success, since people will still seek to buy more meat than is available; "shortages" will persist. On the other hand, if retail prices were raised fully to recover high costs of production, consumers would not take 70 kilos per capita off markets even if it were avilable.

This contradiction between market clearing prices and nonsubsidized prices is a puzzling lacuna in the discussions of pending increases in retail food prices. Price theory and "commodity money relations" have achieved a new and important emphasis, but it is often assumed that market clearing and nonsubsidized prices are synonymous. They are not, unless consumption targets can be changed to let markets clear at nonsubsidized prices. Continued commitment to the consumption goals of the Food Program is inconsistent with market clearing prices that fully cover high costs of production. Unless the consumption targets are revised, only part of the subsidy can be recovered by raising retail prices. The remainder must come from lower costs of production.

Potential for cost reduction is great. Carcass yields and milk yields per cow are low, and can be improved through better breeds and higher quality feed. The soybean imports announced in 1987 are part of a new effort to improve feed productivity by increasing the protein quantity.

As long as costs of production are so high, there is little room for additional expenditures on processing and marketing. The US retail price of beef is about $5.38 per kilo (standard grade), and about 57% of this goes to the farmer. Soviet total costs for beef are 5.50 rubles per kilo, and probably in excess of 75% of this now goes to the farm. Frozen meat and poultry were imported from Hungary in 1985 for less than one ruble per kilo. Supplies of meat from Eastern Europe are limited, but inexpensive cuts from Western Europe are readily available, and, at the official exchange rate, are much cheaper than Soviet products. High farm level prices maintain a very high rate of protection for Soviet producers. Improvements in food processing and packaging would probably increase consumers' acceptance of higher retail prices, but there is little margin for processing unless protection or costs of production are reduced. The changes in agricultural policy in 1988 are the most meaningful attempt so far to remedy high costs of production.

Consumers will expect compensation for price increases, even though welfare will be little reduced unless prices are raised above market clearing levels. The average Soviet family in 1986 spent 36% of after tax income on food (Narkhoz, 1987). The real expenditure was probably higher, since actual prices paid in state stores were higher than official prices. But the proportion of money income now used for food, and the fear that expenditures on the same volume of food would have to increase by 50% if the state decided to recover 70 billion rubles of subsidy through higher prices explain the general nervousness about food price increases and compensation.

The increase in retail food prices that is politically feasible and makes economic sense will not generate enough revenue to remove the agricultural subsidy. Consumers have been repeatedly assured that they will be compensated, and compensation will absorb most of the revenues. A reduction in the subsidy of 30 billion rubles annually would fund a wage increase of about 10%. The wage increase is a poor instrument for compensating changes in food prices, but it may defuse some of the political sensitivity of the issue. Those who consume a lot of meat and milk will be undercompensated and those who benefitted little from the subsidy in the past over compensated by the wage increase. The regressive nature of the subsidies in the past makes across the board compensation preferable to compensating actual losers, but it will not fulfill the pledge to maintain standards of living.

With higher wages and higher relative prices of food, consumers will choose to shift some of their expenditures to other consumables. They will be better off after the increase if prices do not exceed market clearing prices, wages are increased, and more other consumer items are available. Those who consumed little meat will probably be overcompensated for price increases. Those who formerly bought a lot of meat will be undercompensated, but at higher incomes and higher meat prices would be more than willing to buy consumer electronics, better clothing, high quality day care and other services if these items are more available than in the past. If the poor performance of the consumer sector in 1987 continues and is not remedied by imports, higher food prices compensated by higher incomes will lead to greater disequilibria, more black market activity, and more inflation. Compensation for higher food prices must include greater availability of other consumer goods with high income elasticities. Redirection of investment into consumer goods thus should precede the increase in food prices.

Management of the program to bring down the subsidy on the demand side through price increases depends on success in the effort to reduce the subsidy on the supply side. Funds for investment in consumer goods must come from somewhere, and the expensive agricultural sector is a likely source. The farm financial crisis is doubly linked to retail food prices; the problems have arisen together, and neither can be solved independently of the other. The Law on Cooperatives, new forms of contracting, and new financing for state farms may permit Soviet farms to produce at least as much as they have in the past with lower costs of production and lower subsidies. If so, then agriculture's contribution to perestroika could be moderately increasing food supply, subsidy funds freed for investment to retool industry and provide more consumption goods, and a price reform that proceeds on schedule in 1990/91.

Footnotes

1. Assistant Professsor, Department of Agricultural and Applied Economics, University of Minnesota, St. Paul, Minnesota. This work was supported by The Graduate School, University of Minnesota. I thank Barbara Severin for comments on an earlier draft.

2. A manager of a dairy farm near Tbilisi commented in conversation with the author in 1987 that in a milk importing region such as Tbilisi, local officials would not permit sales on collective farm markets when state institutions, such as schools and day care centers, needed milk.

3. Fruits are poorly represented in the price data; fruit prices in fall of 1987 would have been unusually high on collective farm markets due to the severe drop in production during that year.

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