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## The Brezhnev Food Program

An Intelligence Assessment

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Errata

Notice to recipients of CIA Intelligence Assessment The Brezhnev Food Program, SOV 82-10130, September 1982,  
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The final sentence of the second paragraph on page 7 should read:

This new investment strategy addresses many of the complaints long made by critics of the "agricultural lobby" and therefore probably commands stronger support within the leadership than the previous investment policy.



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# The Brezhnev Food Program

An Intelligence Assessment

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the Office of Soviet  
Analysis. Comments and queries are welcome and  
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## The Brezhnev Food Program.

### Key Judgments

*Information available  
as of 1 August 1982  
was used in this report.*

President Brezhnev has unveiled an agriculture-related program for the 1980s that (1) reorganizes the management of food production from the soil to the seller's counter, (2) redirects investment resources between the farm sector and its supporting industries, (3) revises incentives for farm workers and managers, and (4) lists new targets for output of key agricultural commodities and for allocations of inputs. The program reflects the leadership's concern over lagging farm output and represents a renewed political commitment to improve the Soviet diet. A key goal of the program is to reduce dependence on imported farm products.

Except for its organizational aspects, the program is essentially a continuation of past policies. Soviet leaders are relying on:

- A reorganization whose effectiveness is likely to be undermined by bureaucratic confusion and conflict.
- An investment program that will require large allocations of resources and substantial leadtime.
- An increase in monetary incentives and price support subsidies that will raise the cost of, and demand for, food products but will do little or nothing to stimulate production.
- Large increases in factor productivity to meet output targets for agricultural products.

We think the production goals of the Food Program are untenable both because of the political and bureaucratic conflicts inherent in the program and because of its failure to come to grips with more fundamental problems. These include linking rewards to performance, giving farms more freedom to make production decisions, and instituting a price system that would elicit the right mix and volume of farm output and inputs.

The most promising aspect of the Food Program, as currently designed, is the increased investment in transportation and storage facilities, which could reduce losses substantially. However, this is a long-term feature that cannot bear results until the late 1980s, and then only if the political commitment to the program is sustained—a doubtful prospect. Already there are signs of controversy in the Soviet press over the organizational aspect of the Food Program, and its implementation appears to be encountering difficulties. The marked difference in the way Soviet leaders, including leading succession candidates, have treated organizational matters since

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the Program's unveiling suggests that support for the reorganization is thin and that it may become both a vehicle for, and a victim of, succession maneuvering.

We believe that Soviet economic growth will continue to decline and that the Food Program will fail to provide material relief from shortages. The regime probably will be forced to continue to import food—how much depends on the size of food production shortfalls, the degree to which waste and losses of farm products can be reduced, the availability of hard currency, port and transportation capacity, and the magnitude of per capita consumption gains the regime feels obligated to support.

Failure of the Food Program could also heighten Soviet interest in buying Western agricultural equipment and technology. Recent statements by Soviet diplomats indicating interest in Western agricultural technology suggest that at least some Soviet policymakers are anticipating very slow improvements in agricultural technology from domestic sources. Despite any benefits that may accrue from the Food Program, we expect that supporting the nation's need for farm products will continue to be an extremely high cost operation, absorbing very large shares of the country's labor force, investment resources, and foreign exchange.

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## Contents

	<i>Page</i>
Key Judgments	iii
Preface	vii
Introduction	1
Key Features of the Food Program	1
Reorganizing the "Agro-Industrial Complex"	2
Redirecting Investment Resources	6
Increasing Financial Incentives	8
Will the Food Program Work?	8
Potential for Jurisdictional Conflict	9
Production Goals Will Not Be Met	10
Price System Inhibits Success	12
Implications for the 1980s	13
Political Impact	13
Economic Impact	14
<b>Figures</b>	
1. USSR: Organizational Structure of the "Agro-Industrial Complex" as Outlined in the Food Program	4
2. Administration of the Talsinskiy RAPO in Latvia	6
3. USSR: State Outlays for Procurement and Processing of Selected Livestock Products	13
<b>Tables</b>	
1. Annual Average Production of Selected Agricultural Commodities	2
2. Output, Inputs, and Combined Factor Productivity in Agriculture	10

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## Preface

Because food constitutes nearly half of the outlays of Soviet households on consumer goods and services, the quality of the diet has always been a criterion by which the Soviet population judges its well-being. Accordingly, upgrading the Soviet diet has been a centerpiece of Brezhnev's consumer welfare policy. And, indeed, much progress was made in the 1960s and early 1970s. Since the late 1970s, however, little improvement has occurred, and even this small gain has depended on massive imports of farm products costing \$26 billion in hard currency in the period 1979-81. Despite these outlays, the per capita availability of meat has stagnated and that of dairy products has declined.

To stave off a possible rising tide of discontent and falling productivity among the work force, Moscow has launched a major new program for the 1980s to improve the production, processing, and marketing of food products. In past campaigns to boost food availability, the focus has been on production at the farm level. The inclusion of stages in the food chain beyond the "farm gate" reflects official concern over the prodigious losses of perishable foods as well as the low quality of much of the food that finally reaches the consumer. The new campaign to upgrade the entire food production and distribution process is referred to in the Soviet press as the Food Program. This intelligence assessment details the key elements of that program and assesses its viability and political and economic implications in the coming decade.



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## The Brezhnev Food Program (U)

### Introduction

President Brezhnev's longstanding commitment to improving the Soviet diet received new impetus with the inauguration of a major agricultural program for the 1980s at the Central Committee plenum on 24 May 1982. First announced by Brezhnev in October 1980, the new Food Program seeks to improve the integration of the entire chain of food production—from farm, through factory, to distribution. Brezhnev emphasized that the entire "agro-industrial complex must be planned, financed, and managed as a single whole."

Although controversy over this program abounds, as indicated by the year and a half of bureaucratic wrangling over its preparation, its appearance at this time reflects the growing pressure on Moscow to do something in the face of three consecutive years of harvest shortfalls, worsening food shortages, disgruntled consumers, and rising food import bills. Accordingly, the stated purpose of the Food Program is to reduce the USSR's dependence on imports of farm products and to close the growing gap between domestic supply and demand for food.

Debate over the organizational form of the program and general foxi-dragging by the ministries involved prevented its unveiling in March 1981 when the 11th Five-Year Plan (1981-85) was presented. At that time Brezhnev acknowledged that work had only just begun. The program drafters reportedly missed several completion deadlines in the summer and fall of 1981 because of continued unresolved differences. Even in the final weeks before the Central Committee was due to consider the program in late May, Soviet officials were saying privately that the organizational aspects of the program were still being debated. The repeated delays in launching the program could only

\* The contribution of imports to the supply of farm products has more than doubled since 1978—rising from 5 percent to over 12 percent in 1981. Purchases during this period have included over 100 million tons of grain and about 2.5 million tons of meat and have cost the USSR about \$26 billion in hard currency alone.

have been a source of growing political embarrassment for Brezhnev, and in the end he may have pushed to have the program unveiled even though many unresolved questions remain.

### Key Features of the Food Program

The Brezhnev Food Program includes three key measures aimed at improving food production and distribution:

- A reorganization of the administrative structure to promote "unified management" of farms, food-processing enterprises, transport organizations, and the trade network.
- An investment program to improve the system for handling, storing, and processing food and to improve housing and living conditions in the countryside.
- An increase in financial incentives in the form of higher wages, bonuses, and farm incomes to foster higher output and retention of younger, better educated workers on farms.

These three elements are designed to combat what Brezhnev listed as the major problems with Soviet food supplies:

- Although the population receives enough calories, the Soviet diet is inferior to that of other industrialized societies, including Eastern Europe, in terms of quality, variety, and nutritional balance.
- Growth in the population's disposable money income together with the official policy of maintaining stable retail prices has caused demand for food to run well ahead of supply. Expansion of the urban population and increasing reliance of the rural population on state-provided food have put further pressure on the socialized farm sector.

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- Very large losses of farm produce between the field and the retail outlet reflect the lack of incentives and poor coordination among the various organizations involved in food production. According to Soviet press reports, crop waste and losses during and after harvest amount to 20 percent of total output annually.
- Low rural living standards make it difficult to attract and keep young workers on farms. Increasingly, the Soviet agricultural labor force is made up of older, less productive workers as young, better educated adults migrate to the cities.

In addition to endorsing the measures outlined above, the Central Committee plenum in May approved a series of ambitious production targets for the Food Program in the 1981-90 period. The production goals imply that average annual growth in farm output during the 1980s would have to return to the long-term rate achieved during 1951-70—about 4 percent per year. Growth in the 1970s averaged less than 1 percent per year.<sup>1</sup>

The largest planned increases in output during the 1980s are those for fruits, vegetables, meat, and eggs—most of which were cited by Brezhnev as being especially needed to improve the quality of the consumer diet. The grain goal is also relatively ambitious, as it must support large increases planned in livestock inventories and products. Table 1 summarizes the goals for the two five-year plan periods in the 1980s as presented in various Food Program documents.

Although growth in output during the 1980s is slated to return to the levels of the 1951-70 period, annual increases in plant and equipment and growth in labor

<sup>1</sup> Average annual rates of growth were derived by incorporating Soviet plan data for agricultural commodities into the CIA index of Soviet agricultural production. Growth rates planned for the 1980s are high by world standards. According to US Department of Agriculture statistics, net farm output in the United States increased by 1 percent per year during the 1960s and by 1.9 percent per year during the 1970s. Indexes prepared by the Food and Agriculture Organization of the United Nations show that world net farm output grew at an average annual rate of 2.4 percent in the 1971-79 period.

<sup>2</sup> Documents published thus far explaining the Food Program include Brezhnev's report to the 24 May plenum, a "Summary" of the Food Program as approved by the plenum, and six party-government decrees.

and material inputs will be well below earlier rates. Our estimates indicate that growth in combined inputs will average less than 1 percent per year during the 1980s. Although this represents some improvement over recent very low rates of growth, it is well below growth posted in the 1970s as a whole. The output targets, therefore, imply a substantial growth in productivity.

#### Reorganizing the "Agro-Industrial Complex"

Traditionally in Soviet usage, the "agro-industrial complex" consists of the Ministry of Agriculture; ministries providing goods and services to agriculture such as fertilizer, pesticides, machinery, mixed feed, repair services, roads, storage, and transportation facilities; the Ministry of Procurement; and ministries managing the food-processing industries. For purposes of the reorganization, however, Soviet officials have defined the "agro-industrial complex" more narrowly to exclude ministries producing fertilizer and machinery for farms, food-processing enterprises, and mixed feed plants.<sup>2</sup>

As the centerpiece of the Food Program, the plenum approved the creation of agricultural-industrial coordinating bodies at the national and regional levels (see figure 1). Although severely watered down from earlier proposals, the decision reflects a move in the direction of interbranch program management long urged by leading Soviet economists and by Brezhnev. The reorganization brings some components of the "agro-industrial complex" together under a single administrative hierarchy that is responsible for coordinating the entire food production process from farm to retail outlet.

<sup>2</sup> Soviet ministries producing machinery for food production and the USSR Ministry of Production of Mineral Fertilizers are not represented on the new commission even though proponents of the "agro-industrial complex" concept had urged that they be represented. According to the first deputy chairman of Gosplan, industries producing machinery and equipment for agriculture and food processing are included in the Administration for the Complex Planning of Machine Building. Producers of chemical inputs to agriculture are in the Administration for the Complex Planning of the Raw Materials Branches of Industry and Construction Materials.

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**Table 1**  
**Annual Average Production of Selected Agricultural Commodities**

Million metric tons  
(except where noted)

	1971-75	1976-80		1981-85	1986-90
	Actual	Plan	Actual	Plan *	Plan *
<b>Crops</b>					
Grain	181.6	217.5	205.0	240.5	252.5
Potatoes	89.8	102.0	82.6	88.0	91.0
Sugar beets	76.0	96.5	88.7	101.5	102.5
Sunflower seed	6.0	7.6	5.3	6.7	7.4
Soybeans	0.4	NA	0.5	1.4	2.2
Vegetables	23.0	28.1	26.3	32.0	38.0
Fruits, berries, and grapes	12.4	16.9	15.2	19.2	25.0
Cotton	7.7	8.5	8.9	9.2	NA
<b>Livestock products</b>					
Meat	14.0	15.3	14.8	17.2	20.2
Milk	87.4	95.0	92.7	98.0	105.0
Eggs (billion)	51.4	59.5	63.1	72.0	78.5
Net farm output <sup>b</sup> (average annual rate of growth in percent)	-0.4	3.4	1.2	5	3

\* Midpoints of ranges given in plan documents.

<sup>b</sup> In calculating growth rates, midpoints of given ranges were used. Net domestic farm output is the sum of net output of crops and livestock valued in 1970 average realized prices.

At the national level, the Presidium of the USSR Council of Ministers will have a Commission for Questions of the Agro-Industrial Complex made up of the heads of the various organizations included. Z. N. Nuriyev, the deputy chairman of the USSR Council of Ministers who has supervised the agro-industrial sector for years with little distinction, will head the commission. This group does not seem to be a supraministerial organization that the ministries need fear. It appears to have no management functions, nor will it encroach on Gosplan's planning functions. Nuriyev, for example, will have no control over the budgets of the ministries involved in the Food Program. The commission will "coordinate" the activity of the organizations; "monitor" plan fulfillment for state purchases of farm products, deliveries of industrially produced inputs, and the output of processed food; and conduct "preliminary examinations"

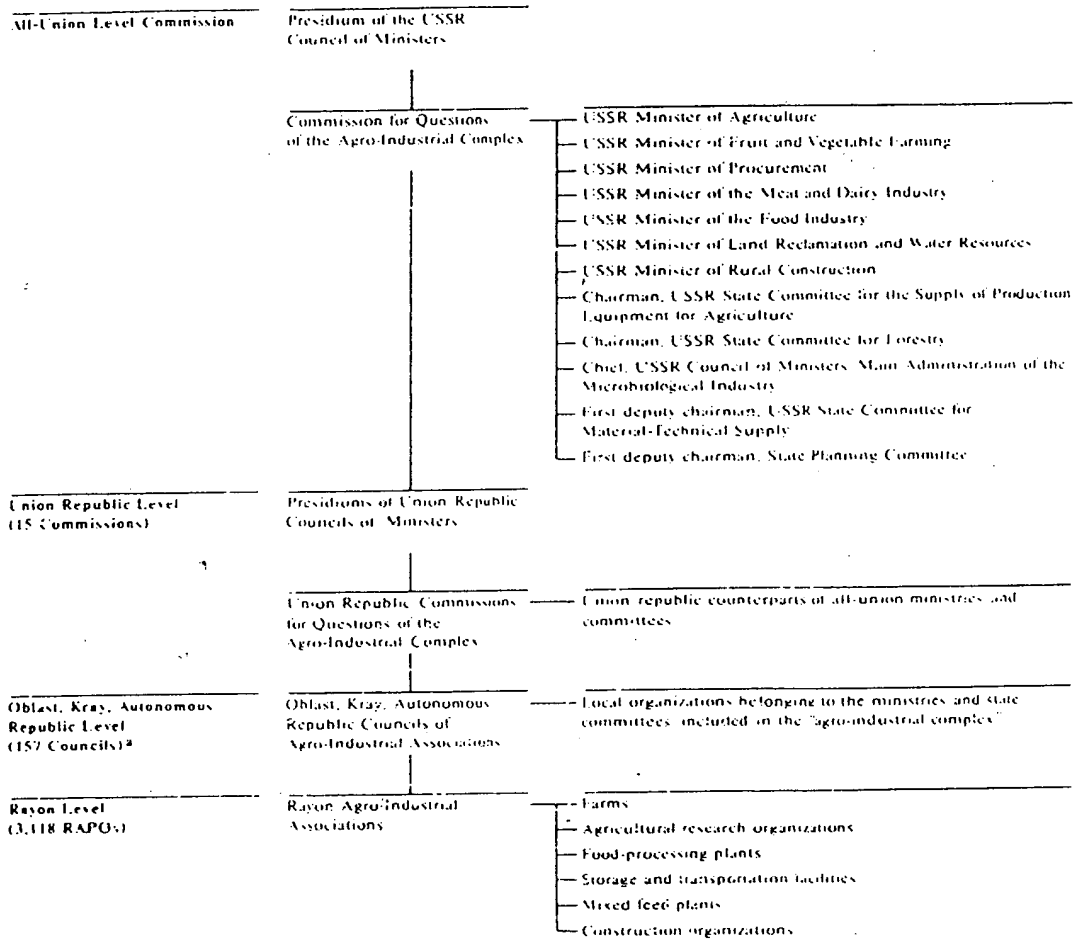
of plans prepared by Gosplan. The power to carry out even these functions is still undefined. The ultimate power of the commission will depend on the extent to which its decisions are binding on the ministries and whether it is able to mediate disputes between them—powers that have made a similar interbranch coordinating body, the Military-Industrial Commission, truly effective.

Union republics will have corresponding commissions. The failure of the plenum to specify the powers of these commissions indicates that their functions have yet to be agreed upon.

At the oblast, kray, and autonomous republic level, there will be councils of agro-industrial associations. They will monitor plan fulfillment and have the

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**Figure 1**  
**Organizational Structure of the "Agro-Industrial Complex"**  
**as Outlined in the Food Program**



\* Autonomous oblasts within Krays are not counted separately in this total

authority to pool resources and redistribute them among members of the agro-industrial complex, as long as union republic ministries and departments agree. Councils at this level can also create interfarm enterprises to produce mixed feed, construction materials, production equipment, and consumer goods.

*The Special Position of the RAPO.* The reorganization carried out at the district (rayon) level is the most significant and controversial aspect of the structural changes. The "rayon agro-industrial association" (RAPO)—an innovative form of administration that has been operating for a number of years on an experimental basis in Estonia, Latvia, and Georgia—is now to be adopted nationwide.<sup>3</sup> RAPOs are self-financing associations that include as members all farms, agricultural service agencies, and processing enterprises in a given district. As such, they cut across ministerial lines, concentrating authority at the local level (figure 2).<sup>4</sup>

The most striking characteristic of the RAPOs is that they are organized on a local territorial basis and theoretically have authority to distribute and redistribute resources within their regions—potentially modifying decisions made at higher levels. According to press reports, the experimental RAPOs in Estonia,

Latvia, and Georgia have been successful in allocating and organizing existing resources in the rayon and in resolving local-level conflicts and problems. Judging by the plenum resolutions, the RAPOs to be established nationwide are to function much as the experimental ones have. RAPOs will be able to allocate credit, investment, and other inputs among farms; work out plans for farm output based on "specified control figures"; establish intra-association prices for services and intermediate products; develop long-term plans for specialization and distribution of agricultural output and processing; and create centralized funds for a broad spectrum of purposes.

Such a wide-ranging mandate, in our view, will inevitably produce conflict between the RAPOs and ministries to whom the individual farms and enterprises within the RAPO will also be subordinate. We believe that this dual subordination will prove to be the most serious obstacle facing the RAPOs and is the lever that factions opposed to the reorganization—notably the Council of Ministers—could use to scuttle the whole program.

*Political Underpinnings.* Approval of the RAPO concept seems primarily due to the lobbying efforts of Georgian party boss Eduard Shevardnadze and to the backing of key party officials in Moscow—agriculture Secretary Mikhail Gorbachev, party Secretary Konstantin Chernenko, and Brezhnev himself. In the summer of 1980, Shevardnadze publicly thanked Gorbachev for his interest in the RAPO experiment. Chernenko, however, has taken the most active public role in promoting the reorganization. He probably seized on the issue as a way of increasing his support among regional party officials, who generally favor any move toward decentralization of authority. In a combative speech at a party gathering in Siberia following the plenum, Chernenko lauded the reorganization as a way of overcoming ministerial departmentalism.

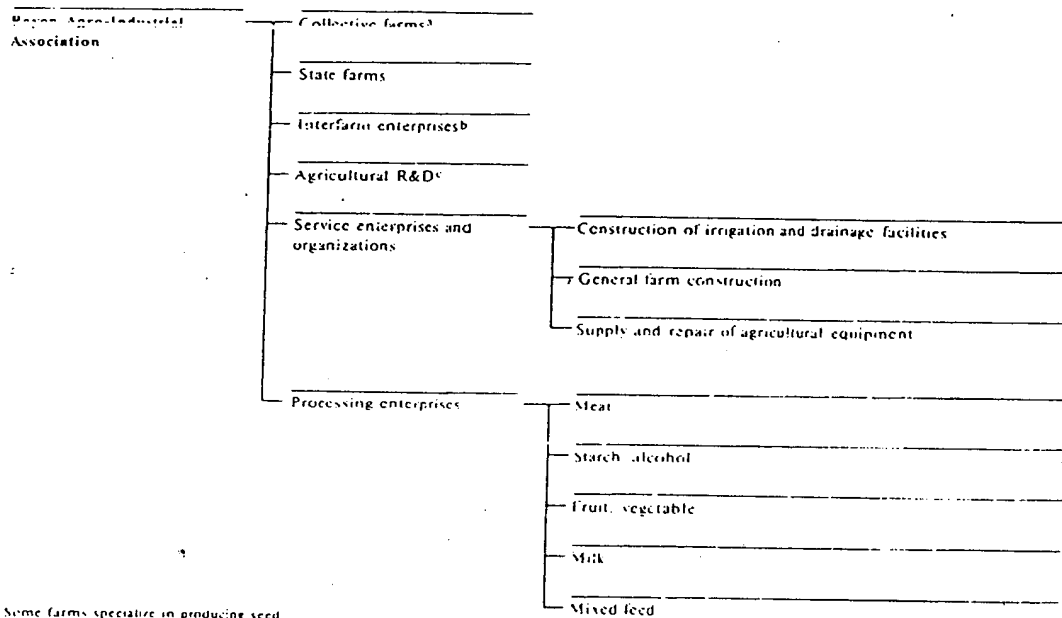
President Brezhnev appears to have pushed for the RAPO concept rather late in the game. His speech to the Central Committee plenum in November 1981 contained the first intimation that he viewed the

<sup>3</sup> The first experimental rayon agro-industrial association was formed in Vilyandiy Rayon in Estonia in late 1975. The reorganization converted the existing rayon agricultural administration (the local branch of the Ministry of Agriculture), into a self-financing association with management authority over the entire food production activity in the district. The Vilyandiy Rayon association includes all 12 sovkhozes and 16 kolkhozes in the district, with a total of 357,600 hectares, as well as the district branch of the state committee for the supply of equipment to agriculture, the kolkhoz construction association, a dairy combine, a meat-packing combine, and a grain milling enterprise. A similar association with a broader membership was launched in the Talsinskiy Rayon in Latvia the following year and in the Georgian Abashskiy Rayon in 1977. Fourteen more rayons in Georgia were converted to the new system in early 1981. By the end of the year most of the districts in all three republics had gone over to the system and their leaders had begun to press hard for approval from Moscow for the next stage—the establishment of comparable republic-level coordinating bodies. Georgia was given the go-ahead in January. Also in early 1982 a few RAPOs were beginning to operate in some regions of the Russian Republic.

<sup>4</sup> The governing body of the RAPO, known as the Rayon Association Council, is made up of a chairman (who also is the first deputy chairman of the rayon executive committee) and, as members, the local collective farm chairmen, state farm directors, representatives of the local party organizations, and leaders of other enterprises in the RAPO as determined by the rayon Soviet of Peoples Deputies, the local legislative body.

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**Figure 2**  
**Administration of the Talsinskiy RAPO in Latvia**



<sup>a</sup>Some farms specialize in producing seed.

<sup>b</sup>These are organized for a variety of purposes, such as production of building materials, construction-installation work, processing of agricultural output, breeding livestock, and operating rest homes and sanatoriums.

<sup>c</sup>Includes seed breeding, experimental farms, and so forth.

RAPO as the bottom layer of a tiered organizational package—the local counterpart of a national-level interagency body. The RAPO was given a big boost in March 1982 when the Presidium of the Supreme Soviet heard a report from the heads of two experimental RAPOs in Georgia and Latvia and endorsed their experiments as a promising form of local management. This approval by Brezhnev's legislative apparatus had the effect of preempting any critical review by the USSR Council of Ministers—where opposition to the RAPOs was greatest—and strongly indicated that the RAPOs would be part of the Food Program when it finally appeared.

#### **Redirecting Investment Resources**

As in 1970 and 1978, Brezhnev has succeeded in gaining Central Committee approval of agriculture's share of total investments well in advance of the next plan period, leaving other civilian claimants to fight over the remaining pieces of the investment pie. The 1981-85 Plan allocates 33 to 35 percent of new fixed investment to the "agro-industrial complex," and the Brezhnev Food Program claims the same share of investment for 1986-90. For purposes of allocating

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investment resources, Soviet planners have adopted the broad definition of the "agro-industrial complex." Investment totals appear to include allocations for those industries excluded from the definition used for the reorganization.

The policy over the past 15 years of pouring money into agriculture has been a controversial one. It has depended on Brezhnev's strong political backing and thus may be one of the first policies to come under review after his departure. During the 1980s, however, investment resources are to be distributed somewhat differently than in the past to build up what Moscow considers the weak links in the food production chain. This new investment strategy addresses many of the complaints long made by the "agricultural lobby" and therefore probably commands stronger support within the leadership than the previous investment policy.

**Industries Producing Inputs for Food-Related Activities.** According to party Secretary Gorbachev, investment in sectors producing machinery and equipment for agriculture and food processing will have high priority.<sup>7</sup> While capital investment in the entire "agro-industrial complex" will increase by 30 percent during the 1980s, investment in facilities to produce tractors, animal husbandry equipment, and other agricultural machinery will more than double. Investment in industries producing machinery for food processing will triple. In addition, expanded investments in the chemical industry are targeted to improve the quality of fertilizer delivered to agriculture.

**Agriculture.** Average annual investment in farm equipment, buildings, and land reclamation projects in 1981-85 will increase by only 5 percent over 1976-80. This small boost appears inconsistent with the goal of doubling investments in production facilities. Apparently, this reflects the lag between construction of new plant and equipment for production of farm-related machinery and actual expansion of shipments of new machinery from these new facilities.

<sup>7</sup> M. Gorbachev, "The Food Program and Tasks in Its Implementation," *Kommunist*, No. 10, 1982, pp. 6-21.

Outlays on social overhead projects such as housing and roads for farm communities, however, will rise by 40 percent.

A larger proportion of "productive" investment than in the past is to be devoted to on-farm food-processing and storage facilities to reduce losses of perishable products. Other top-priority investments include outlays for machinery for providing livestock feed and labor-saving machinery. Many of the planned projects appear to have little potential for raising crop yields.

The heavy emphasis on investment in rural infrastructure reflects Moscow's desire to improve farm-to-market transportation and stem the flow of younger workers to urban areas. Accordingly, 176 million square meters of rural housing are scheduled to be built in 1981-85 and 205 million in 1986-90 compared with 149 million actually built in 1976-80. This large increase comes at the expense of urban housing, as total housing construction is not slated to increase. As in the past, large increases are planned in the provision of consumer services and in health care facilities.

In our judgment, the chief benefit from enhanced rural investment will come from expanding the rural road system, which is essential to reducing very large losses in transportation. Although performance in fulfilling plans for roadbuilding is poor, Moscow intends in 1981-85 to commission 54,000 kilometers of general purpose roads linking farm centers with rayon centers and 57,000 kilometers of hard-surfaced on-farm roads.<sup>8</sup> The 1986-90 targets are to be 40 to 60 percent higher.

Funds for other farm-sector investments are to remain at current levels or be reduced to support investment in priority areas. Soviet plan documents indicate that new starts in land reclamation projects (irrigation and drainage) will be fewer in number in the 1980s. They

<sup>8</sup> A total of 57,000 kilometers of new on-farm roads is an average of only 1.7 kilometers for each of the 47,000 state and collective farms.

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will, however, continue to claim about one quarter of total investment as the campaign continues to bring on stream the large, expensive projects started in the 1970s. (

According to a Soviet periodical, capital investment in new facilities for raising livestock and poultry in 1981-85 will be only 80 percent of the 1976-80 level. To save money, outlays for reequipping and reconstructing existing enterprises are being increased

**Food-Processing and Transportation Facilities.** A major investment goal of the Food Program is to upgrade capital stock in food processing, long a low-priority claimant on resources. According to Gorbachev, the number of processing enterprises, including well-equipped storage facilities, will be increased and located near farms to minimize transportation costs. To reduce shipping losses, supplies of refrigerator trucks, milk tankers, cattle trailers, and other specialized transportation equipment are to be increased.

#### **Increasing Financial Incentives**

In addition to larger investment in rural housing and other facilities, the Food Program contains other measures to keep the agricultural labor force in place and to attract well-trained technicians to farm jobs. To this end, the program calls for a further reduction in urban-rural income differences. Farm wages will continue to increase faster than those of other workers.\* Managers, professionals, semiprofessionals, and livestock workers are to receive additional pay raises and bonuses.

The Food Program stipulates that agricultural workers will receive a larger share of their wages in products, primarily grain, fruit, and vegetables. We believe that Moscow is reemphasizing payments in

\* According to our estimates, average agricultural incomes (including income in kind) in 1950 were roughly half of average nonagricultural incomes. By 1977 this share had risen to over 80 percent. This implied closing of the "income gap" to a point comparable to the rural-urban differential existing in developed societies in the West is somewhat misleading. Compared with urban centers, rural areas have poor transportation and housing; inadequate health, education, and entertainment facilities; and a skimpy supply of consumer goods. Therefore, a "quality of life" index that reflected both household incomes and the availability of goods and services would show a spread of much more than 20 percent between farm and nonfarm residents. In addition, this difference would be much larger than those that exist in the developed West.

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kind in order to encourage livestock raising by private producers and to reduce demand in state retail food stores. Moscow apparently recognizes that payments in the form of scarce or expensive food products often provide greater incentives than money payments that cannot be spent on the goods and services that the population wants.

New graduates in the fields of agronomy and animal husbandry will receive three years of free housing upon accepting a farm job. In addition, 50 percent of the passenger cars and 30 percent of the motorcycles designated for sale in rural areas are to be earmarked for priority sale to young professionals with agricultural training.

To raise farm income and production, higher procurement prices for cattle, hogs, milk, grain, sugar beets, potatoes, vegetables, and "other products" will go into effect on 1 January 1983. At the same time, prices paid by farms for equipment, fertilizer, and fuel will be lowered. The financial position of farms will also be improved by grants from the state budget to finance investment projects and by writeoffs and deferments of farm debt. In July, V. Garbuzov, the Minister of Finance, wrote that approximately 10 percent of the 112 billion rubles of farm debt will be written off and another 10 percent will be deferred.<sup>10</sup> Some additional cash grants will be earmarked for bailing out farms now operating at a loss.

#### **Will the Food Program Work?**

Although Soviet officials have said that Moscow expects positive results from the Food Program within two or three years, we judge this expectation as highly unrealistic. Too much planning remains to be done before the program gets off the ground, let alone shows results. The detailed instructions and regulations needed to reorganize the agro-industrial complex have not yet been formulated. Moreover, the structure and authority of key organizational bodies at the regional and republic level have not been clarified.

<sup>10</sup> *Finansy*, No. 7, 1982, p. 11. A debt of 112 billion rubles is over three times the current annual investment in agriculture.



There is continuing disagreement over what their functions should be. The investment program will take time to implement—especially because the original plans for 1981-85 have already been set in motion—and even more time to add substantially to the stock of plant and equipment. Financial incentives will have little impact without a concomitant increase in consumer goods and services, which, in turn, will be slow to materialize. In short, the Food Program is a long-term bet—one for the late 1980s and early 1990s—rather than a quick fix for the next few years.

Even in the long run, however, the Food Program stands small chance of achieving its central goals: (a) to reduce the USSR's dependence on imports of foodstuffs and (b) to close the widening gap between domestic supply and demand for food. First of all, the reorganization is likely to be plagued by political and bureaucratic conflict that will inhibit its effectiveness. Second, the goals for output of farm products are inconsistent with the targets for resource inputs, implying inordinately heavy reliance on gains in productivity. Finally, the program fails to come to grips with one of the major shortcomings of the economic system—administratively set prices that bear no resemblance to resource costs—a shortcoming that will tend to erode the potential gains from higher wages, bonuses, or investment resources.

**Potential for Jurisdictional Conflict**

Competition between the central ministries and the territorial organizations for authority over food production may lead in many places to a reorganization in name only and will almost certainly weaken the effectiveness of RAPOs in operation. They will not work equally well everywhere. Success depends heavily on the ability of management at the local level. We think that the experimental RAPOs have succeeded largely because of the enthusiastic backing of republican officials, talented management, and favorable economic conditions—characteristics that are not widespread in the USSR.

The ministries have strongly opposed the territorial approach to agro-industrial integration. Since Brezhnev scrapped the regional economic councils (*sovnarkhozy*) in 1964 and restored the central ministries, the latter have jealously guarded their rights to plan and

administer capital investment and to distribute material supplies against the claims of regional authorities. The influence of the ministries is reflected in the diluted nature of the authority of the RAPOs as described in the plenum resolutions. For example, while RAPOs were given full authority over plans for farms, they can only "examine" the plans of other member enterprises and organizations that play a crucial role in providing the RAPO with inputs and services. RAPOs have wide discretion in allocating inputs among farms, but can reallocate only 10 to 15 percent of the resources of other member enterprises and then only with the latter's consent. We believe that these restrictions will limit the effectiveness of the RAPOs in coordinating all phases of the food production process. RAPOs will have particular difficulty in extracting emergency supplies from, or remedying late deliveries by, ministerial-level organizations. Because of dual subordination (to the ministries and to the RAPOs), individual farms and enterprises within the RAPO will have to carry out directions from their parent ministries that may well conflict with RAPO plans. Restraints on RAPO authority are shown below:

Authority	Limitation
To determine plans for output	on the basis of specified control figures.
To redistribute 10 to 15 percent of material resources between RAPO enterprises	with their consent
To establish prices	on the basis of standard norms
To redistribute capital investment within the RAPO	by agreement with higher departmental organs
To create centralized funds and determine their use	on the basis of the relevant normative documents.

We expect the implementation of the RAPO concept to be delayed considerably, and the concept may be further watered down if not scrapped altogether. A special commission which was established to draft legislation further defining the powers of the regional agro-industrial bodies as well as the coordinating commission at the national level has completed its work, according to a longtime Yugoslav correspondent in Moscow. But the various ministries affected are

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reportedly irate over the results and are arguing that the proposed legislation gives regional organs excessive powers at their expense. The draft legislation is to be approved by the USSR Supreme Soviet, and continued debate on the question may account for the failure to hold the usual summer session of the Supreme Soviet this year.

Many Soviet economists who originally supported the RAPO experiment as a mechanism for introducing economic reforms into Soviet agriculture are also beginning to have second thoughts. Although they once believed the RAPOs would force a relaxation in centrally set prices and planned procurements, in recent newspaper and journal articles they have begun to warn that unless the RAPOs and republic-level bodies are given wide discretion in making investment decisions, they will become just additional bureaucratic layers. Already,

the scheme is being met with bewilderment, apathy, or outright hostility in some places. In communities where there is little commitment to making the system work, local officials, when faced with conflicts or problems, almost certainly will revert to old ways of administration.

#### Production Goals Will Not Be Met

Our estimates, shown in table 2, indicate that output targets are overly ambitious, given planned growth of inputs and past trends in productivity growth. To achieve production goals for the 1980s would require productivity gains well above those posted in the 1950s.<sup>11</sup>

The productivity gains implied by the Food Program goals will not materialize, in our judgment, in part because the actual benefits from key measures in the program will fall far short of potential. For example, the RAPOs theoretically could reduce losses through a more rational distribution of machinery, fertilizer, seed, and the like among farms. By trying to appease territorial interest groups without offending central ministerial organizations, however, the organizational

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**Table 2** Percent  
**Output, Inputs, and Combined Factor Productivity in Agriculture**  
(average annual rates of growth)

	Net Farm Output <sup>a</sup>	Combined Inputs <sup>b</sup>	Factor Productivity <sup>c</sup>
1951-60	4.6	2.6	2.0
1961-70	3.0	2.0	1.0
1971-75	1.6	2.1	-0.5
1976-80	0.2	0.6	-0.4
1981-85 plan	4.7	0.9	3.8
1986-90 plan	3.1	0.7	2.4

<sup>a</sup> In order to dampen the effect of wide cyclical swings in year-to-year output, average annual rates of growth were computed by relating the three-year average for the terminal year to the three-year average for the initial year, except for the plan periods. Data are from the CIA index of net agricultural production.

<sup>b</sup> Includes labor, fixed capital (buildings, structures, and machinery and equipment), land, materials purchased from outside agriculture (fuels and lubricants, electric power, fertilizer, some processed feeds, and current repair of machinery and buildings), and livestock herds. The several inputs are aggregated into a geometric production function of the Cobb-Douglas type in which each input is weighted by its relative contribution to total output (as estimated by its share of the value of agricultural output).

<sup>c</sup> Growth of factor productivity required to meet output goals, given planned allocations of inputs.

features of the food program are likely to result in much bureaucratic infighting with few gains for agriculture.

In addition, incentives to boost worker productivity are simply too little and too late. More money chasing the same quantity (and quality) of goods and services is no incentive for better performance. Although some of the wage and bonus increases are to be in the form of farm products, the amounts involved are relatively small and dependent on overfulfillment of ambitious plans. If the past is any guide, routine boosting of wages will not provide the incentives necessary to achieve the called-for productivity gains. Despite a 50-percent increase in the income of farm workers between 1970 and 1981, for example, rates of growth of labor productivity continued to decline. The key to

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meaningful wage increases is to link them to performance, but, according to the Food Program, relatively few agricultural workers will be covered by wage systems of this kind.

Finally, the investment program for the agro-industrial complex may not be funded fully, compounding the problem of too few inputs to meet output goals. Annual increments to the country's total investment resources are declining at the same time that needs for new investment are rising throughout the economy. Thus, the Food Program's claim on investment may be whittled down later in the decade when problems in other sectors of the economy become more pressing. At a minimum, squabbles among the whole range of economic ministries (as well as the conflicts we expect between the branch ministries and the territorial agro-industrial organs) are likely to result in lengthy delays and fragmentation of investment projects.

We believe that industries supporting agriculture with machinery and equipment probably stand the best chance of receiving their planned investment allocations because they are part of the heavy industrial sector. Less certain are the investment plans for development of the rural areas. Past initiatives to increase investment in rural infrastructure have tended to peter out when planners have had to turn to more immediate problems caused by production shortfalls. Rural-urban disparities in living conditions, therefore, are unlikely to narrow quickly, suggesting that the outmigration of younger, more able rural workers will continue.<sup>11</sup>

Nonetheless, the state of Soviet rural communities is so backward that almost any increased investment in this area will have some positive long-run impact. For example, urban housing generally comes equipped with electricity, indoor plumbing, hot water, and central heat, while in rural areas the typical privately owned one-story wooden home has electricity but lacks indoor plumbing and central heat. According to Soviet statistics, in the Russian Republic in 1980, for

example, only 22 percent of the rural state housing was connected with sewer lines, and only 26 percent had central heat. In addition, the very poor system of rural roads makes timely marketing of farm produce both difficult and expensive. Less than 20 percent of farms have hard-surfaced roads.<sup>12</sup> Most rural roads, furthermore, are impassable for much of the year.

In addition to the uncertainties in the Food Program's specific measures, we believe that planned production increments will not be forthcoming in part because improvements in farm-related technology are occurring too slowly. Improvement in on-farm technology is needed not only to raise yields but also to soften the impact of weather fluctuations—a primary factor determining year-to-year crop sizes in the USSR. But the Soviets lag behind the West across the board in the use of modern crop varieties, in the effectiveness of pest control, and in the application of efficient tillage, irrigation, and harvesting techniques. The Food Program explicitly calls for a 12- to 15-percent increase in crop output per unit of "chemical input." In the case of grain, for example, each ton of fertilizer yields 1 to 1.2 tons of grain. With present technology, this response rate will drop as additional fertilizer is used. To meet plans for raising response rates, diminishing returns to additional fertilizer use must be more than offset by technical improvements such as better quality fertilizer and more sophisticated fertilizer application equipment and techniques. We estimate that past rates of technological improvement are likely to continue, with the result that Soviet farmers will find it difficult even to maintain response rates at present levels. In addition, targets set by the Food Program for increasing returns to livestock feed are not likely to be met.

Indeed, adverse weather conditions have already jeopardized the farm output targets for 1981-85. Because of the poor crop year in 1981, growth in net farm output would have to average over 6 percent per year in 1982-85 to meet plan goals. The Soviet agricultural sector has not been able to sustain a growth rate this high since the late 1950s when growth in output was

<sup>11</sup> Between 1970 and 1980, the rural population declined by 7.4 million. Soviet census data show, moreover, that young adults compose the major group of outmigrants.

<sup>12</sup> *Planirovaniye i uchety sel'skokhozyaystvennykh predpriyatiyakh*, No. 1, 1982, p. 5.

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spurred by a 20-percent increase in sown area. Another poor year in 1982, as now seems likely, would push the growth rate required to meet 1985 targets even higher.

#### **Price System Inhibits Success**

Perhaps the greatest impediment to success of the Food Program is the Soviet price system, which encourages the wrong mix and volume of both farm output and inputs. Prices paid for agricultural inputs and farm output do not reflect relative resource costs and therefore cannot provide adequate signals and incentives for efficient use of the resources committed to agriculture and the sectors supporting it.<sup>14</sup> The Food Program does not come to grips with this problem. Although some decentralization (such as the RAPO concept) is needed to relate rewards to performance, giving greater decisionmaking autonomy to the farms (or the RAPOs) will be ineffective until the USSR finds a way of establishing (and changing) prices that will reflect relative resource costs and elicit the production responses that satisfy the goals of the Soviet leadership.

*Procurement Prices.* Average production costs and the procurement prices based on them do not include returns to land or to capital. Farms find crop production, which uses more land than does livestock production, to be relatively more profitable than production of meat, milk, and eggs. Although Soviet planners are trying to raise the share of livestock products in the consumer diet, pricing policy throughout the 1970s has conflicted with this goal. Grain procurement prices between 1970 and 1980, for example, increased more than twice as fast as procurement prices for meat, while the cost of producing meat rose about 20 percent faster than the cost of producing grain.

The system of cost-plus pricing with its regional differentiation also pays the highest prices to producers whose costs are highest. As a result, regional specialization along least-cost lines is not carried out to the degree it would be if prices were set differently.

<sup>14</sup> See, for example, D. Gale Johnson, "Agricultural Organization and Management in the Soviet Union: Change and Constancy," *The Soviet Economy to the Year 2000*, National Council for Soviet and East European Research, November 1981.

Meanwhile, price bonuses paid for procurements above specified levels increase the instability of farm income. In a good crop year, farm income benefits from larger quantities sold and from procurement price bonuses. In bad years, income falls sharply because of smaller quantities sold and the absence of price bonuses.

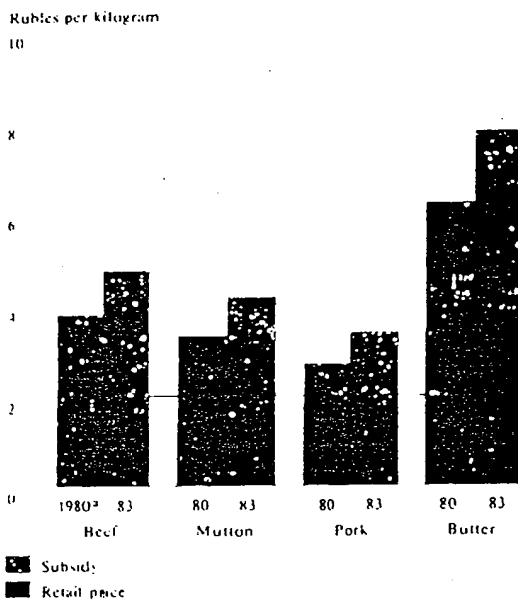
Reducing income inequality through differentiated procurement prices, subsidies, and debt forgiveness (as stipulated in the Food Program) also leads to inefficient use of inputs. High-cost producers in poorer areas who receive higher procurement prices tend to be allocated more inputs, such as fertilizer, even though crop response to fertilizer would be higher elsewhere.

As a result of inappropriate output and input prices and the lack of appropriate success indicators, the regime must maintain central control of agriculture and hand down procurement plans in order to achieve the desired product mix. Growth in livestock production during the 1970s, for example, has been chiefly the result of output plans passed down to farms along with incentives to fulfill them. If farms made production decisions according to existing prices, output of some important commodity, such as potatoes, might decline drastically or inputs such as agricultural chemicals would be used mainly close to factories producing them to minimize transportation costs.

*Retail Prices.* One of the hallmarks of the Soviet system has been stability in retail prices for food. A loaf of bread, for example, costs the same today as it did in the mid-1950s. Continued stability of retail prices in the face of increased prices paid to farms, however, means that more budget revenue must be raised to cover the difference (figure 3). Under the Brezhnev regime, state subsidies for agricultural commodities have been growing rapidly. The original 1981-85 plan called for a 20-percent increase in subsidies, and the new Food Program piles additional increases of 10 to 15 percent on top of that. Beginning in 1983, 16 billion rubles will be added to the originally planned subsidy bill because of increased procurement prices and additional price differentials.

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**Figure 3**  
**USSR: State Outlays for Procurement**  
**and Processing of Selected Livestock Products**



\* Retail prices covered less than half of state ruble outlays per kilogram for procurement, marketing, and processing of beef and mutton in 1980.

Source: *Finansy SSSR*, Number 7, 1982, page 10 (Figures for 1981 are official Soviet projections.)

for farms operating at a loss. We estimate that by 1985 agricultural subsidies will be almost 60 billion rubles compared with 33 billion rubles in 1981. Revenues could be raised to cover price differences by increasing taxes, for example, or by reducing funds for nonagricultural activities. Whatever means are chosen, there is likely to be some impact on nonagricultural sectors of the economy.

Retail prices set so that it is cheaper to feed bread to livestock than to feed grain, for example, tend to distort decisionmaking and create disequilibrium in many consumer goods markets, causing lines, black

markets, high levels of waste, and consumer dissatisfaction. Low retail prices also allow the population to accumulate funds that are saved or used to support the "second economy," thus reducing regime control over resources. Moreover, the longer retail prices for food remain relatively low, the harder it will be to raise them without negative popular reaction. Soviet planners are thus caught between their unwillingness to raise retail prices and the impact of rising procurement prices and subsidies.

#### Implications for the 1980s

Because of the conflicts and inconsistencies inherent in the Food Program as currently outlined, we judge that it will have little positive impact on the economic well-being of the population in the near term and will provide only marginal returns in the late 1980s, if it survives that long. Of more immediate concern may be its impact on the political rivalries that are emerging in Moscow's succession sweepstakes.

#### Political Impact

The marked difference in the way Soviet leaders have treated the organizational aspects of the Food Program in their speeches since the plenum suggests that battle lines are forming over its implementation. Of the handful of leading officials who have spoken out on the issue so far, only those who are closely associated with the reorganization—such as Chernenko, Georgian Party boss Shevardnadze, and the new agro-industrial commission head, Nuriyev—have dealt with it in strongly positive terms. Even the party secretary for agriculture, Gorbachev, who evidently supported the Georgian RAPO experiment early on and presumably had a major hand in drafting the program, only mentioned the reorganization briefly in his recent article and stressed the less controversial aspects of the Food Program."

The debate over the Food Program appears, moreover, to involve more than the proper organizational structure for agriculture. The emergence of the RAPO concept—which holds out the potential for a significant decentralization of management authority

"Gorbachev, op. cit.

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to the local level—seems to have revived the old debate over Khrushchev's regional economic councils. For instance, in an article on the eve of the May plenum, Shevardnadze hinted strongly that the "territorial principle" of economic organization should be expanded beyond agriculture to embrace other sectors of the economy. Regional party officials (many of whom are on the Central Committee) were the most enthusiastic supporters of the *sovnarkhozy* and have been critical of the expansion of powers of the central state apparatus during the Brezhnev era. Although Chernenko's endorsement of the RAPO experiment may have worked to his advantage in gaining the support of some regional leaders, it places him in the center of a potentially burgeoning controversy and could prove a liability if growth in farm output fails to accelerate and if the implementation process proves as disruptive as now seems likely.

The entrance of Politburo member Yuriy Andropov into the succession race may further politicize the debate. Andropov avoided any mention of Brezhnev's Food Program in a speech earlier this spring, and there is some tentative evidence that Andropov supports an alternative approach that combines strong central planning and direction of the economy and greater managerial autonomy at the enterprise level. Andropov's one-time aide Fedor Burlatskiy set out this view in a March 1982 *Novy Mir* article. In an analysis ostensibly directed at China but relevant to the current Soviet scene, Burlatskiy, a longtime advocate of political and economic reform, criticized those who would give the provinces greater freedom of action. "They do not realize," he argued, "that this would leave the bureaucratic nature of the system unchanged." The remark appeared to be a direct criticism of supporters of the RAPO and an indication that the two leading contenders to succeed Brezhnev may be on opposite sides of this issue. Thus, the Food Program may become both a vehicle for, and a victim of, succession maneuvering.

#### **Economic Impact**

We believe that the Food Program will do little to raise agricultural output and to reduce waste. Because the Food Program contains no provisions that are likely to increase the rate of on-farm technical progress or to improve the price system, agricultural

output in the 1980s will depend heavily on weather conditions, which may be no better than the long-term climatic norm.<sup>10</sup> Some production gains are likely, but we consider output goals of the Food Program to be out of reach.

In our judgment, storage and transportation of food products will improve somewhat as the result of the investment program and provide small gains in reducing waste. Major reductions in waste will not occur because organizational aspects of the Food Program will not be implemented sufficiently to provide enough incentive throughout the food production chain to upgrade product quality. The Food Program, moreover, will have no impact on the waste that very low retail food prices encourage.

The secondary effects of a Food Program that fails to provide more food may be highly significant during a decade of increasing shortages and rising tensions. As Soviet economic growth continues to decline and the Food Program fails to provide material relief from shortages, the regime will find it more difficult to cope with rising expectations, especially among the younger and more restive elements of the population. Today more than 60 percent of the Soviet population is under 40 years of age, and these citizens, having grown accustomed to the steady increases in living standards that prevailed for nearly three decades following World War II, are less stoic and more vocal than their forebears about the system's shortcomings.<sup>11</sup>

They suggest that Soviet citizens are worried about higher food prices, doubt Moscow's ability to increase productivity in agriculture, and share the opinion that RAPOs are simply another layer of bureaucracy that would not raise output.

<sup>10</sup> A review of climate trends since 1960 suggests that a major impetus to growth in farm output between the early 1960s and the mid-1970s was the result of unusually favorable weather. A return during the 1980s to more "normal" conditions, which are taken to reflect average weather over a 30-year period, would mean weather less favorable than that of the earlier period, but somewhat better than the poor years of 1979-82.

<sup>11</sup> See, for example, Gail Lapidus, *Soviet Society in the 1980s*, paper prepared for the Georgetown Center for Strategic and International Studies, Washington, D.C., July 1982.

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the skepticism with which Soviet citizens traditionally greet party-government decrees seemed particularly strong in this case, reflecting public sensitivity over dismal food supplies

With the Solidarity episode fresh in their minds, we believe present Soviet leaders will be even more inclined to appease the beleaguered consumer. The quality of the diet remains the key element in this approach, and, if the Food Program founders, the regime will be forced to pursue more familiar strategies to keep domestic food shortages manageable

For example, sizable food imports probably will continue in the 1980s. The exact size of Soviet food imports, however, and the share of per capita consumption gains coming from imports will depend on the magnitude of food production, the degree to which domestic farm waste and losses can be reduced, and the magnitude of per capita consumption gains the regime feels obligated to support. Shortages of hard currency will be a continuing constraint, forcing the leadership to choose between keeping consumer grumbling in a tolerable range and maintaining nonagricultural imports.

Failure of the Food Program to produce the results promised could also heighten Soviet interest in purchases of Western agricultural equipment and technology. Such purchases have been a very small share of hard currency trade in technology, reflecting agriculture's low priority as a claimant on hard currency imports of machinery. Recent signs of interest in Western agricultural technology suggest that at least some Soviet policymakers are anticipating only slow improvements in agricultural technology from domestic sources. In May 1982, for example, a Soviet diplomat told a [ ] that he had been instructed from "ministerial levels" to make sure that

the US Government and private businessmen were aware that the USSR has a high-priority need for agricultural equipment and wanted to buy US equipment. The new Soviet Ambassador [ ] recently claimed, furthermore, that the current Soviet agricultural production system gave no further room for growth and that Soviet embassies will be tasked with studying foreign agricultural methods for use in the USSR "at a later time."

As presently outlined, the Food Program guarantees that Soviet agriculture will continue to be an extremely high cost operation, absorbing very large shares of the country's labor force and investment resources. Other developed nations support and subsidize expensive agricultural sectors but not nearly to the extent that the USSR does. Soviet leaders, moreover, face the constraints of rising costs on every side—in energy and industry as well as in agriculture. Unlike other countries, the Soviet Union has not been able to bring about the technical progress that would offset the diminishing returns encountered in its capital-intensive kind of development