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MARKETING, SUBSIDIES, AND PRICING POLICY

by

Olan D. Forker

December 1972

No. 72-31

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Introduction

The marketing system, including the determination of price, is probably one of the most important activities of an economy. Without marketing, economic specialization would not exist. In fact, the marketing function is the basis of specialization.

Despite the fact that marketing has been a part of all economic systems from the beginning of time, it is one of the least understood and most often condemned aspects of economic activity. In underdeveloped countries it is generally believed that economic development is held back because the indigenous marketing systems are exploitative, collusive, economically inefficient, and operating with high profit margins.

In the U.S.A. this very day the marketing system is being blamed as the cause of inflation in food prices. A high level presidential commission is trying to determine the barriers to increased productivity in marketing. We already have price and margin control in operation over almost all commodities except food. Control over food prices is being discussed seriously. Again marketing takes the blame.

Although there is likely an element of truth in the many allegations toward marketing and the pricing system, a lack of understanding and the misconceptions about the marketing system may lead to incorrect marketing and price policy. As a result, many governments probably have overinvested and continue to overinvest their scarce funds in programs of market and price intervention.

Many governments including Turkey commit a large portion of the central governments credit or revenue to market and price intervention. This policy needs to be continually examined. One should always raise the question, "What would be the impact on economic development, employment, and income distribution if such funds (revenue or credit) were used in other ways?"

2.

This paper is organized so as to focus on what I concluded after 1-1/2 years of study are the appropriate governmental policy considerations for Turkey. They are: (1) There should be a minimum amount of direct governmental intervention in marketing and pricing; (2) The government when it does intervene, should price its product (set margins) so as to recover the full cost of the marketing services provided; (3) The government should encourage technological change and private sector investment in marketing functions; and (4) The government should establish rules, regulations, and programs to maintain or increase competition.

Minimum Amount of Intervention Desirable

The amount and kind of governmental intervention in pricing and marketing must depend on the circumstances of the particular country and the desires of its people. However, for maximum development, intervention should be limited to only that necessary to facilitate the efficient operation of the marketing and pricing systems. A discussion of some of the elements of marketing and pricing policy will clarify this point. The important elements are price parity, price stability, income stability, income distribution, a guaranteed product market and the costs (to government or society) of intervention.

Price Parity

It appears to me that the price support and intervention program for agricultural crops and products is based to a large degree on the concept of price parity. The announcements of increases in price support levels include in their justification the idea that the commodity price must be kept in line with increases in the price of inputs. This is a universal element of price policy the world over. All farmers want the difference between the price received and the cost of production to stay the same or increase--a reasonable desire.

However, this is usually an inappropriate policy in view of changes in productivity which may lower or increase dramatically the per unit cost of production of one crop relative to others. Also, it ignores the possibility of changes in relative demand for the commodity. The U.S. government's attempts to maintain price parity in agriculture since 1933 resulted in burdensome surpluses of some commodities while others were in relatively short supply. I suspect that a thorough analysis of Turkish agriculture would indicate that some serious misallocations in production resulted in the past from price support programs. But the misallocation is not obvious nor serious in view of the country's deficit position in some major commodities.

One could argue that the target of price parity should be replaced by a target of economic and technical efficiency in production and marketing. Although the price parity target is obviously more politically acceptable, it may lead to rather serious misallocations of resources and a burden on the funds of the central government. Furthermore, there is no evidence to support an argument that price parity for any or all crops will increase productivity.

Price Stability

Price stability is also a universal element of policy, both seasonally and from year to year. If farmers are assured a stable price, it is argued that they are more likely to adopt new technologies and thus increase productivity and total output. Of course, such an increase is only possible if new technology is available and only if farmers view it as economical at the existing or expected price level. If the technology requires a large amount of capital for adoption, then its adoption further depends upon the availability of savings or adequate credit.

Although stable prices may be (is) a desirable goal for other reasons, again by itself it will have little impact on output or productivity unless the other elements are present. Some will even argue that stable prices are counterproductive to this goal. The U.S.A. experience of unstable and declining farm prices has often been used as an argument that such a situation forces the development and adoption of new technology because it is necessary to decrease costs--necessary for survival. However, this is not necessarily the correct conclusion. Here again the increased productivity was dependent upon the availability of new technology and the capital for the necessary investment.

Turkey's experiences demonstrate the lack of a connection between stable prices and productivity. With inflation removed the price of wheat, hazelnuts, etc., has been very stable for many years. Although productivity has been increasing gradually, it cannot be argued that stable prices are the cause. The more important ingredient of policy is adequate credit and the generation of new technology.

Income Stability

Price stability is often linked to income stability. However, price stability does not necessarily lead to income stability nor increases in relative income. If income stability is to result from price stability, there must also be stability in yields. If real incomes are to increase, there must be improvements in productivity.

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If yields are relatively unstable, i.e., fluctuate from year to year because of weather and other factors, then income will not be stable despite stable prices. In fact, price stability may be counterproductive. If the demand for the commodity is relatively inelastic, then lower yields in any one year will result in free market price increases large enough to more than offset the value impact of the average yield decrease. Thus, in a free market situation incomes could be higher during low yield years than during high yield years.

Conversely, controlled stable prices may cause higher incomes during the high yield years than would likely occur otherwise. Thus, price stability may result in income instability. The goal of price stability may therefore be only a promise which may be counterproductive relative to a broader goal of income stability. Income increases are possible in a realistic and real sense only if productivity of the land or labor resource base is increased.

Furthermore, price increases have no direct impact on the revenue of small subsistent farmers. In fact, higher prices supported in such a way as to generate higher overall prices place the subsistent farmers at more of a disadvantage on the few things he does buy. If one wants to stabilize, increase, or change the income of subsistent farmers, methods other than price support will be necessary. Price support or intervention almost always benefits the large efficient operators.

Here again the argument would be for a minimum amount of intervention in pricing.

Impact on Income Distribution

It is my understanding that in Turkey, except for sugar beets, the level and the extent of price support is announced at or just prior to harvest time. Since the area sown and the quantity of other inputs have already been determined, the decision on the price level and the extent of support affects only the amount of money that the farmer will get for his already determined level of output. It thus affects or influences the distribution of income among sectors, the amount of credit required, the quantity that the public sector will buy and market relative to the private sector and if losses are incurred, the amount of inflation. The only influence on production is in the way it affects farmers' price expectations for the next and future years.

If the government policy were to attempt to influence directly the level of production for a given year through price policy, then the announcement should be made ahead of planting time. But this is feasible only if there is adequate information available to determine the appropriate price level. In Turkey most of the crops (wheat, hazelnuts, and cotton) have such large yield variation that such a program could become very costly and disruptive.

The amount of resources needed to make the necessary economic analysis would be large. However, if this were desired, a two-step procedure would be mandatory. The first step would be the determination and announcement of a floor price prior to harvest which would consider the probability of alternative levels of yield and area sown, actually occurring. The floor level would be set on the assumption of the best growing conditions and thus the highest probable level of production. The second stage would be a decision to leave the price the same or increase it at or prior to harvest time when one has a better estimate of the expected level of production. Again, it seems that the amount of intervention should be kept at as low a level as politically feasible.

The price support mechanism is very ineffective as a device to maintain or increase or even affect the income of small or subsistence farmers. Price support almost always provides the greatest benefits to the large efficient producers.

A Guaranteed Market for Farmers' Production

One of the strongest arguments that I see for intervention is to make sure that all farmers have access to legitimate market outlets. The government can and should make sure in many cases that a market is available. However, the government can guarantee a price greater than that which will clear the market only if it is willing and able to accumulate large stocks and incur the costs.

Turkey's price policy appears to be directed toward this goal to a large extent. Conceptually, this should result in a tendency for more resources to be used in production than would be if the market risks were greater. It also provides the institutions facilities and resources necessary to absorb relatively large increases in production that may be brought on by the introduction of new seed varieties, such as Mexican wheat, and other new technology.

In 1971 I went on a tour of the Iskenderum-Adana area during wheat harvest with Adam Karaelmas. I was very much impressed with the ability of T.M.O. to handle the extremely large increases in volume. Marketing was orderly because the Central Bank provided all the capital necessary to purchase all the wheat that was offered to T.M.O. Furthermore, and very important, the technical know-how existed within T.M.O. to accomplish the actual procurement and storage process in a relatively efficient manner.

I understand that a similar story can be told for other commodities such as tea, sugar beets, tobacco, hazelnuts, etc. However, there is a cost associated with this kind of policy. The cost is the building and maintenance of excess capacity that must exist and the lost opportunities for the government capital and labor tied up in the purchase and marketing program. The actual cost in any year, of course, will be determined by many factors, such as the T.M.O. purchase price and selling price, handling efficiency, and the degree of involvement by the private sector.

6.

Since T.M.O. and other state enterprises are in existence and since the ability to efficiently handle the production of wheat and other agricultural products is important, the question of whether or not they should exist is not the real issue. The important issue concerns the amount and degree of intervention in price and marketing through these enterprises. For example, is there a policy which would encourage more private sector investment in inventories and facilities which would in turn reduce the amount of government resources required to accomplish the same purpose?

An appropriate strategy would involve a minimum amount of government investment in facilities, or a price policy that would recover all or most of the costs of providing the marketing services. An exception occurs of course in the case of new technology in marketing which requires new costly equipment and entrepreneur talent. Then a state economic enterprise may be the only means of generating the necessary capital. If this is the case, however, complete government support and intervention should probably be temporary. To reduce the burden, the agency should be made self-sufficient as soon as possible.

Although such government intervention can facilitate the development of and adoption of new technology which may increase productivity, other means must be taken to ensure the generation of new technology and the availability of investment capital. Perhaps, a more appropriate policy is to focus on new technology development and credit availability along with a policy to encourage the use of private sector capital.

The Cost of Intervention

Any intervention program involves the use of government resources. The impact may be dramatically different depending on the manner in which it is financed. In Turkey most of the cost is borne by the Central Bank. As I understand the situation, credit is extended to the State Enterprise, State Monopoly, or Sales Cooperative to provide money for purchases.

Losses incurred by the enterprise in implementing the intervention policy accumulate as outstanding credit to the agency. The average increase in credit for this purpose over a period of years can be considered as the approximate net cost of intervention.^{1/}

^{1/}The total cost is higher than this to the extent that general funds (revenue) are used to support the operating costs of the government enterprises.

For purposes of discussion I have calculated the changes in the amount of outstanding credit for two time periods, the decade of the 50's and the decade of the 60's (Table 1). The average annual cost for the period 1950-60 was about 208 million TL. For the period 1960-70 the annual cost amounted to about 490 million TL. This represented a rather substantial portion, 40 percent and 36 percent, respectively, of the average increase in outstanding credit to the public sector for the two time periods.

During the decade of the 1950's intervention in wheat prices and marketing incurred the largest cost, an average of 80 million TL per year. But during the later decade of the 1960's the losses incurred by the monopoly administration in the purchase and marketing of tea and tobacco accounted for the largest cost, about 190 million TL per year. Of course, there is an additional cost. The interest charged by the Central Bank on loans to the State Economic Enterprise is nominal, less than 1 percent. These in essence represent interest free loans to finance the purchase and storage function for the commodities involved. The impact is twofold. There is an opportunity cost in terms of lost interest revenue, but more important is the economic growth that might have occurred if this capital had been invested in other economic activities.

Loans to the Sales Cooperative, however, earn interest at the normal rate - near 10-14 percent. The Sales Cooperative is paid a commission for performing the intervention function. Revenue from sales are turned over to the Agricultural Bank. The outstanding balance at the Central Bank represents credit outstanding, net of payments on principal and interest.

But how does one answer the question as to whether this represents too much or not enough intervention. Only the people involved can answer that question. However, certain factors do need to be considered.

The credit method used to finance the intervention activities and to cover losses appear to be relatively costless in the short run, that is, no costs or losses appear in the government's budget. However, in the long run, losses that are incurred become monetized^{2/} and since they represent such a large part of the increase in credit and thus increases in the money supply the losses are likely inflationary.^{3/}

^{2/} Equivalent to the printing of more money or increasing the amount of money in circulation.

^{3/} Maxwell J. Frey, Finance and Development Planning in Turkey - especially Chapters 4 and 5.

8.

TABLE 1. AVERAGE ANNUAL INCREASE IN THE OUTSTANDING CREDIT OF THE CENTRAL BANK TO AGENCIES INVOLVED IN AGRICULTURAL PRICE AND MARKET INTERVENTION ACTIVITIES

Enterprise and Commodity(s)	P e r i o d	
	1950-1960	1960-1970
	(Million TL/year)	
Soils Products Office (Wheat)	80	109
Sugar Factories Company (Sugar)	41	62
Monopoly Administration (Tobacco & Tea)	24	175
Tobacco Financing	<u>10</u>	<u>15</u>
SUBTOTAL	155	361
Sales Cooperatives	<u>53</u>	<u>129</u>
Total Intervention Credit		
Increase Per Year	208	490
Increase in Total Current Credits	520	1,371
Intervention as % of Total	40	36

Source: T. C. Central Bank Monthly Bulletin

In essence this method of financing provides a subsidy now to producers and to consumers to be paid for at a later date through higher prices for most goods and services. Producers purchasing power is temporarily increased (relatively speaking) and this provides the pressure for inflation. Inflation will be minimized, however, if there is excess capacity and a rapid production response in the industries that supply the goods which are now in greater demand.

Since most of the commodities which the government purchases are sold within the year, the costs can be considered as a subsidy to the marketing sector. For example, most of the loss in the operation of T.M.O. results from an established price spread which is less than the per unit cost of services rendered. This introduces the question as to whether it is in the best interest of the economy to tie up this much of the government's funds. A greater price spread would result in more of the cost being carried by the consumer of wheat, would encourage more private sector investment in inventories, and would reduce the financial burden on the credit account of the Central Bank.

The Extent of Government Involvement

In Turkey, the government's involvement in the pricing and marketing of agricultural products is rather extensive (Table 2). It is also rather extensively involved in the pricing, manufacture and distribution of agricultural inputs (Table 3).

Involvement is large relative to the value of several commodities. The cost of intervention, as measured by increases in outstanding Central Bank credit, is equivalent to about 2 percent of the national income of the Agricultural Sector.^{4/} This in itself seems rather large and does not include budgeted subsidies to the agricultural sector. If one were to add the direct subsidy to production through fertilizer, seeds, and water (operation and maintenance costs only) intervention costs are equivalent to almost 2.5 percent of the national income from the agricultural sector.

However, the importance relative to major commodities, sugar, tobacco, and tea, is over 10 percent (Table 4). These proportions can be interpreted as indicative of the extent and relative cost of intervention for each commodity. It represents the extent to which producers and/or consumers of these commodities are subsidized by the government. The net effect on consumer welfare depends on the manner by which the government finances the intervention cost. And, of course, the only real costs are the opportunities lost or given up by committing or using government resources in this activity rather than in some other.

^{4/}The average national income for agriculture sector for period 1961-1969 was 24.9 billion TL.

TABLE 2. Government Involvement in the Pricing and Marketing of Agricultural Products, Turkey

Commodity	Government Supports Purchase Price		Procures from Farmer		Domestic Sales		Municipality sets ceiling prices for consumers		Exports/Imports	
	X	$\frac{4}{X}$	SEE COOP	Private	SEE COOP	Private	for consumers	X Bread	SEE & COOPs	Private
Wheat	X		X	X	X	X	X	X	X	
Other Cereals	X		X	X	X	X	X	X	X	
Pulses	$\frac{4}{X}$		$\frac{4}{X}$	X	$\frac{4}{X}$	X	X	$\frac{4}{X}$	X	
Tobacco ^{2/}	X		X	X	X		X	X	X	
Potatoes				X		X			X	
Sugar Beets ^{3/}	X		X		X			X		
Cotton	X			X		X		X	X	
Oil Seeds	$\frac{4}{X}$		$\frac{4}{X}$	X	$\frac{4}{X}$	X		$\frac{4}{X}$	X	
Opium Gum	X		X	$\frac{5}{X}$	X	$\frac{5}{X}$		X	$\frac{5}{X}$	
Vegetables			$\frac{6}{X}$	X		X		$\frac{6}{X}$	X	
Fruits			$\frac{6}{X}$	X		X		$\frac{6}{X}$	X	
Grapes			$\frac{6}{X}$	X		X		$\frac{6}{X}$	X	
Citrus			$\frac{6}{X}$	X		X		$\frac{6}{X}$	X	
Other				X		X			X	
Hazelnuts	X			X		X			X	
Pistachios	X			X		X			X	

TABLE 2 Cont'd

Commodity	Government Supports Purchase Price		Procures from Farmer		Domestic Sales		Municipality sets ceiling prices for consumers		Exports/Imports ^{1/}	
	SEE	COOP	Private	Private	SEE	COOP	Private	SEE & COOPS	Private	
Dried Figs	X		X	X		X	X	X		X
Raisins	X		X	X		X	X	X		X
Olive Oil	X		X	X		X	X	X		X
Livestock		X		X		X	X	X		X
Meat		NA	NA	NA		X	X	X		X
Wool			X	X		X	X	X		X
Tea ^{2/}	X		X	X		X	X	X		X

^{1/} All exports/imports are subject to some degree of control. A license must be obtained from the appropriate government agency.

^{2/} Tobacco and tea purchases and sales are made by the State Monopoly.

^{3/} The sugar company is a state economic enterprise that has the exclusion right to purchase, sell and export/import sugar beets and sugar.

^{4/} It is planned that the Soils Product Office will expand activities in pulses, oil seeds and livestock feed.

^{5/} Illegal private sector trade does probably exist.

^{6/} Procurement for export is now made by MEPA, a state supported enterprise, since 1969.

TABLE 3. Government Involvement in the Pricing, Manufacture and Distribution of Agricultural Inputs, Turkey

	Government	Production or		Distribution		Imports ^{1/}	
	Sets Selling Price	Public	Private	Public	Private	Public	Private
Fertilizer	X	X	X	X	X	X	X ^{2/}
Compound Fertilizer			X		X		X
Certified Seeds		X	X	X	X	X	
Pesticides			X	X	X		X
Tractors	X	X	X	X	X	X	X
Combines	X			X	X		X
Other Farm Machinery			X	X	X		X
Feeds		X	X	X	X	X	

^{1/}All imports are subject to some degree of control. A license must be obtained from the appropriate government agency. The purpose is to control the flow of currency.

^{2/}Until 1971, private sector was permitted to import.

TABLE 4. Relative Importance of Implied Cost of Intervention,
to the Value of the Commodity

Commodity	Average Cost Million TL	Implied Cost as a Percent of Total Value of Crop (Percent)
1. Tobacco and Tea	180.0	12.4
2. Sugar	62.0	11.6
3. Hazelnuts	58.6	9.2
4. Raisin	9.3	6.5
5. Cotton	78.3	4.2
6. Olive Oil	16.4	2.6
7. Pistachios	2.6	2.2
8. Figs	2.9	1.5
9. Wheat	109.0	1.4

Source: Calculated using costs from Table 4 and 5 and average value of the crop for the period 1961-1969.

Full Cost Pricing of Government Services

Turkey has a relatively high cost of intervention primarily because producer pressure groups demand higher producer prices on one side and consumers demand lower food prices on the other. For several commodities the prices received by the government agency for quantities purchased and sold are lower than that necessary to cover procurement, storage, processing and distribution costs.

In the case of wheat, the government specifies a selling price for bread type wheat at the same time it specifies the purchase price. This difference or margin has been set at less than full costs to absorb some of the purchase price increases so that consumer prices could be held down slightly. But I suspect that the long-run inflationary impact of the funding of the losses of T.M.O. is greater than the inflationary impact would have been of a wider margin and thus higher price of bread to consumers.

In the case of the Sales Cooperatives, the commission charge paid to them probably covers most of their overhead costs. Losses to the government for programs implemented by sales cooperatives result when the purchase price is set at too high a level relative to conditions of supply and demand. In this situation it becomes necessary to sell at a price lower than that necessary to cover full costs just in order to clear holdings. If this is not done, then the government will hold unsold stock at the end of the year and costs will be incurred in storage and carryover for sales in subsequent years.

The narrow margin has been justified also as necessary to prevent exploitation and speculation by private merchants. In effect it does. It transfers the market risks from the private sector to the public sector. But this can be done, where desirable through government involvement in purchase and sales, at prices which will more nearly cover full costs.

When the government policy prices government services at less than the full cost of providing these same services (by an efficient system or group of firms in the private sector), the government is discouraging private sector investment and involvement. Thus, capital that might be supplied by the private sector has to be supplied by the public sector.

The situation for wheat can be used as an example of how this occurs. In Table 5 is presented a hypothetical set of costs for procurement, storage and transportation of wheat by a technically efficient system. If the specified margin for T.M.O. is 10 kurus per kilogram (and if supplies are adequate or if T.M.O. has indicated that they will import adequate supplies), the private sector has an incentive to purchase their own needs for local (Tskenderun) needs through October or November.^{5/} For needs after November, the rational business man would depend on T.M.O. for supplies as they could be obtained at a lower total cost.

^{5/} Assumes that they can obtain their estimated requirement at about the same purchase price as T.M.O.

TABLE 5. Hypothetical Costs for Marketing Wheat Produced in the Iskenderun Region and Marketed in Iskenderun or Istanbul, Turkey, 1971 (A Technically Efficient System)

Cost Item	K _r /Kg	
	Iskenderun	Istanbul
1. Within region costs		
a. Local transportation	2	
b. Facilities and personnel	<u>5</u>	
c. Total	7	<u>7</u>
2. Transfer Costs to Istanbul		
a. Transportation		6
b. Unload		<u>2</u>
3. Total Cost at Harvest including ownership costs of storage facilities	7	15
4. Total cumulative cost including cost of money and cost of storage calculated at 1 kr/kg/month.		
August	7	15
September	8	16
October	9	17
November	10	18
December	11	19
January	12	20
February	13	21
March	14	22
April	15	23
May	16	24

Source: Hypothetical but based on author's knowledge of actual situation.

One would expect all shipments to Istanbul from Iskenderun to be made by T.M.O. The 10 kurus margin set for T.M.O. is less than the cost of procurement and transportation excluding storage costs. Therefore, as long as the private sector thought that T.M.O. would and could supply wheat in Istanbul at the procurement price plus 10 kurus, there would be no incentive for them to procure and transport it themselves. Except, of course, from sources where the net cost would be less.

This exercise also demonstrates the reason for T.M.O. losses. The flat price regardless of the point of origin or point of sale results in the private sector providing all (or most) marketing services where there is an implied or real profit. T.M.O. activities for all practical purposes are restricted to those areas where private sector would not expect to make a profit.

Thus, the system results in an assured loss of some size. The amount will depend on the size of the fixed margin. The wider the margin, the more involvement one would expect by the private sector. The narrower the margin, the less one would expect involvement by the private sector. The effect on the size of the loss of T.M.O., of course, would depend on the relationship between T.M.O.'s costs and T.M.O.'s volume.

A partial solution to this problem is to implement a system of differential prices among regions and over time to reflect the spatial and temporal nature of costs. T.M.O. can do this now for free market sales (about 10 percent of their sales have been free market sales in the past). An introduction of differential pricing on quota or allocated quantities of bread wheat would be necessary to obtain adequate revenue to more nearly cover costs incurred by T.M.O.

Full cost pricing of governmental services would minimize the burden to government yet achieve most of the purposes of intervention.

Incentives for Technological Change and Investment

Incentives to encourage technological change and investment by the private sector can do a great deal to encourage an efficient operation of the marketing sector. To this end the government can do the following:

1. Follow a full-cost pricing policy on government marketing services. This puts the government operations and private sector operations on a more competitive equal footing.
2. Make sure that equipment and other inputs for technological changes are available to the private sector.

3. Adopt programs to encourage an adequate supply of commodities for which there is a market. Many programs have faltered because of the inability to obtain an adequate supply. This is necessary for an efficient operation in either a private sector enterprise or public sector enterprise. The supply situation can be influenced through use of storage facilities and the operation of a modest buffer stock program and through programs to ensure availability of credit and technology to farmers.

Increase Competition

Probably the best way to ensure that appropriate technology is adopted in marketing and that the marketing sector is not exploitative is to ensure a high level of competition. This can only be done if technology is available, if credit is available and if the public sector operations are not heavily subsidized.

Full cost pricing of government services can be an important part of this policy. For if the government operations are heavily subsidized, they in effect are operating in a protected position. There is no incentive for the private sector to attempt to compete. The public sector enterprise because of its protected position likewise has little incentive to become efficient.

The government can, of course, do many other things to increase competition such as, (1) ensure availability of credit to small marketing operators, (2) improve transportation systems, (3) improve communication systems, and (4) ensure full dissemination of appropriate marketing information on prices and alternative markets; this requires a well defined acceptable system of grades and standards.

An Appropriate Policy

Let me summarize. I think we will all agree that increased productivity in agriculture can only occur if the marketing sector is effectively and efficiently organized. However, we should also understand that this in itself will not ensure or guarantee increased productivity. Some policies could, in fact, establish a marketing system which would prevent the proper or desired signals from flowing from consumers to producers and which would discourage private sector involvement.

An efficient marketing system with a modest amount of government intervention can provide the proper environment and incentives for increased productivity. However, new technology and the ability to apply it must be in the hands of producers, large and small, for such an increase to actually occur.

Since intervention in marketing and pricing can and does tend to consume a large portion of a government's resources, government involvement should be kept to a minimum. It is my impression from my study of the Turkish situation that the cost burden of intervention could be reduced dramatically by the adoption of a full cost pricing policy for government services. This would in effect cause consumers to pay for the services directly and free funds for the development of new technology and improving the level of competition in production and in marketing.

An appropriate public policy toward marketing and pricing of food and fiber then could be stated as follows:

1. There should be a minimum amount of direct governmental intervention in marketing and pricing.
2. The government, when it intervenes in marketing, should price its product so as to cover the full cost of the marketing services provided.
3. The government should encourage technological change and private sector investment in marketing functions, and
4. The government should establish rules, regulations, and programs to maintain or increase competition.

An effectively operating marketing and pricing system is the best way to insure the most rapid improvement in productivity in the production of food.

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