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CORNELL AGRICULTURAL ECONOMICS STAFF PAPER

PRICE STABILIZATION POLICIES FOR THE

UNITED STATES

by

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Agricultural price stabilization is now largely an academic issue rather than a political issue in the United States. Interest in this topic, which your attendance at this conference suggests is relatively high in Canada, simply is not shared by those in policy-making positions in Washington. None of the Presidential candidates have given the issue prominence, nor does it rank high on the policy agenda of those in Congress who are most concerned with agricultural issues. One of the reasons for this is that the term "price stabilization" suffers from a poor image, at least among grain producers. It implies a return to policies prevailing in the 1960s which produced stable, but very low prices. Farmers would like to have higher floors under prices, but strongly resent any attempt to impose upper limits. They have been especially critical of decisions which they believe have had the effect of dampening down export demand, such as the export embargo imposed last summer on grain exports to the Soviet Union.

On the other side, consumers are not strongly organized or united behind any particular proposal that might have the effect of stabilizing prices. Consumer advocates obviously are opposed to high food prices, and want to hold down the rate of inflation, but they have done little more than enunciate support for some kind of "reserve policy" and denounce middlemen, corporate farming, and the Secretary of Agriculture. Under these circumstances, one should not be surprised to find the status quo emerging as the most viable policy alternative. Conditions simply are not propitious in the United States at present for the adoption of new or innovative policies.

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Remarks prepared for presentation at the Conference on New Developments in Agricultural Stabilization sponsored by the Canadian Agricultural Economics Society, Quebec City, March 17, 1976.

Existing Policies

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The current mix of policies in the United States permits prices to fluctuate over a wide range. Except for marketing orders which apply to a limited number of fruit and vegetable crops and to fluid milk, there are no price stabilization measures in effect at present for perishable commodities, i.e. for eggs, poultry, pork and beef. Support prices are still in effect for manufacturing milk, grains, cotton, tobacco and oilseeds, but these commodities account for only about half the total cash receipts of farmers. Furthermore, support levels are now so low in relation to market prices for most of these commodities that they are largely irrelevant. Dairy products have been an important exception at times during the past year although recently prices have fluctuated above the minimum support level.

The government will not acquire any storage stocks or reserves of grain unless prices fall to the loan rate. This rate establishes the floor under market prices, but 1976 loan rates for wheat, corn and soybeans are only about half the actual market prices received by farmers last December (when prices were close to seasonal lows) (table 1). Prospective prices next December, based on current futures quotations, are slightly higher than those prevailing during the 1975 harvest season. Such prices also are well above 1976 target prices. These are the prices which trigger payments to farmers. If the average market price during the first five months of the marketing season falls below the target price, the government is committed to making up the difference by direct payments to producers (subject to a limitation of \$20,000 to any individual producer).

Table 1. U.S. Government Support and Estimated Market Prices for Wheat, Corn and Soybeans

	1976 Sup	1976 Support Prices		Average Farm Prices			
	Loan Rate	Target Price	Dec. 1975	Est. Dec. 1976			
		(\$ per bushel)					
Wheat	1.50	2.29	3.41	3.90			
Corn	1.25	1.57	2.37	2.50			
Soybeans	42.50		4.28	5.00			

^{*} Based on recent futures quotations at Chicago.

Sources: USDA News Release, Feb. 27, 1976 and Agricultural Prices, Dec. 15, 1975.

The legislative authority for the existing support program expires in 1977. Thus, within the next 18 months, Congress will have to decide whether to extend the existing support program or modify it, but no action is likely until elections are over and a new Congress convenes in January.

The present Secretary of Agriculture is a strong advocate of a "freemarket" approach to pricing. He has succeeded in blocking attempts by Congress to force substantial increases in support levels and has opposed any new legislation which might lead to rebuilding government-held inventories. But his commitment to the "free market approach" has not prevented the executive branch from attempting to manipulate or control exports so as to hold down prices when speculation was intense and inflationary pressures threatened to push prices above politically acceptable levels. Temporary export restrictions, such as the embargo on soybean exports in 1973 and on exports of grain to the Soviet Union in 1975, have become an important policy instrument. $\frac{1}{}$ No guidelines have been established by Congress or the executive branch as to when or under what circumstances export restrictions will be imposed. Decisions have been made on an "ad hoc" basis, which has given rise to the term "ad hocery" to describe the Administration's approach to price stabilization. The effect of such decisions has been to create a new element of uncertainty in commodity markets. As Roger Gray points out, futures markets can accommodate risk management only if the rules of the game are spelled out and adhered to. The failure to do so has resulted in substantial losses to holders of long futures contracts at certain times. U.S. export restrictions also have been condemned by grain producers, grain exporters and importing countries who obviously can be seriously hurt if the option to purchase additional supplies is suddenly cut off.

The Administration's apparent preference for employing indirect methods in an attempt to influence prices extends to food aid (P.L. 480) shipments as well. Appropriations for P.L. 480 were curtailed in 1974 when grain supplies were tight and then liberalized again in 1975 when it became apparent the U.S. would harvest record crops of wheat and rice. The overall effect of manipulating food aid contracts has been extremely modest, however, for the simple reason that P.L. 480 shipments now account for less than 6 per cent of the value of all U.S. farm exports, and only about 3 per cent of total U.S. grain production.

The Administration has made substantial efforts to reduce potential variability in exports by negotiating bilateral agreements with selected countries. At the same time, they have taken a very skeptical attitude towards international commodity agreements designed to fix or index prices. The Soviet grain agreement has been hailed by the Administration as a potential stabilizing device. Under the agreement, which takes effect in October of this year and runs for 5 years, the Soviet government is committed to purchase between 6 and 8 million tons of wheat and corn per year. Other grains such as barley, sorghum and rice are not covered under the agreement, and hence total shipments of grain could exceed the upper limit of 8 million tons by a substantial margin if the Soviet Union chose to purchase these non-agreement commodities. The U.S. also has reached an agreement with Japan committing the U.S. to supply 14 million tons of wheat, feed grains and soybeans during each of the next 3 years (3 million tons each of wheat and soybeans and 8 million tons of feed grains). Intentions to purchase agreements also have been negotiated with Poland and Israel.

These bilateral agreements again reflect the preference of the Administration for using indirect methods in an attempt to stabilize demand and prices. We have yet to see whether these instruments of policy will, in fact, serve to reduce instability; however, the approach is likely to be extended if it proves successful. This could have important implications for other suppliers. A trading environment in which a substantial proportion of grain shipments are negotiated under long-term contracts would differ substantially from what we have experienced in the recent past.

Price Stabilization Alternatives

In theory one can envision a wide array of policies, including storage, trade restrictions, export licensing, price ceilings and rationing which might help to stabilize the prices of agricultural commodities, but in practice, the discussion of policy alternatives in the United States has been limited to a small number of policy instruments and only a few commodities. Most of the discussion of agricultural stabilization policies in the United States now centers around grains and oilseeds. Very little thought

has been given to what might be done to reduce price instability for such commodities as fruits, vegetables, poultry, eggs, beef and pork, except indirectly through stabilization of grain prices. Academic economists have devoted most of their attention to reserve or storage policies for grains.

Only marginal changes from the existing mix of farm policies are likely to be considered seriously by Congress even if the White House has a new occupant next January. Agricultural policy-makers will be dealing with the same questions that have occupied their attention in the recent past, namely what to do about price-support levels for grains, how much and what kind of reserves should the government attempt to maintain, and under what circumstances should export controls or licensing be authorized. At some future date, the Administration might be forced to give serious consideration to international stabilization schemes or reserve policies, especially if present bilateral agreements break down and prices on world markets continue to move erratically. For a brief period last year there was even some discussion of creating a monopoly selling organization for grains comparable to the Australian and Canadian wheat boards. Among the arguments advanced for creating such a new institution was that it would enable the U.S. to bargain more effectively with large-scale government buyers such as the Soviet Union and China and to exercise more effective control over exports without resorting to embargoes or export licensing. There is still interest, at least in academic circles, in practicing international price discrimination which would be much more feasible if the U.S., too, had a monopoly selling organization. A bill to authorize the government-owned Commodity Credit Corporation to become the exclusive marketing agent for grain exports was introduced in Congress last year. Hearings were held on the bill, but it failed to generate sufficient support to emerge from the House Committee.

Storage or Reserve Policies

There is now widespread agreement that the world needs larger reserves of grain than we have had in the past 3 years, but how large they should be, how much should be held by the government, and the conditions under which stocks should be acquired and sold remain as unsettled issues. Total U.S. carryover stocks of grain (including those held privately as well as by the government) have ranged from a high of over 100 million tons in the early 1960s to a low of 23 million tons in 1975 (table 2). Ownership of

such stocks also has changed dramatically over the past decade. At one time, nearly 90 per cent was held by the government. Now practically all of the stocks are in the hands of farmers, private traders, exporters or processors; consequently the government has no leverage to influence prices, and must buy on commercial markets even to fulfill food aid commitments.

Table 2. U.S. Carryover Stocks of Wheat and Feed Grains; Selected Years

Year	Wheat	Feed grains	<u>Total</u>	% Held by Government		
(million metric tons)						
1961	38	77	115	90		
1967	12	34	46	49		
1972	24	45	69	71		
1975	9	14	23	*		
1976 (est.)	12	20	32	*		
				1 .		

Sources: USDA, Foreign Agriculture Circular FG 16-75, Dec. 22, 1975,

Wheat Situation, Feb. 1976, and Feed Grain Situation, Feb. 1976.

* Less than 1 per cent.

Under current legislation, the government will not acquire any additional carryover stocks or reserves unless prices fall to the loan rate. A recent simulation analysis produced by Ray and Tweeten indicates there is only a small probability that the government will acquire any stocks between now and 1979 if provisions of the Agriculture and Consumer Protection Act of 1973 are maintained over the next 3 years. Thus, the law will have to be changed if the government is to acquire any additional stocks. In general, consumer advocates, those who want to increase food aid commitments and academicians would feel more comfortable if the government had the authority to purchase or acquire stocks, but many farmers and the Secretary of Agriculture are strongly opposed to getting the government back in the storage business. Opponents argue that the presence of large stocks in the hands of the government tends to depress prices. They would prefer to see stocks held privately, not only to permit more upward flexibility in prices but also to avoid the possibility of incurring high government costs.

Carryover stocks, most of which are now held by farmers, will be slightly larger at the end of the current marketing season than they were in 1975. Whether farmers will add to stocks if we have another good harvest in 1976 remains to be seen. There also is the possibility that the stocks they hold could be managed so as to increase the amplitude of price fluctuations rather than to moderate them, i.e. in a period of rising prices, farmers might tend to hold on to stocks, and to unload them if prices decline.

A total carryover of 60 million tons of grain is frequently suggested as a reasonable target. Stocks of this size would enable the United States to hold prices within a relatively narrow range unless the world experienced an exceptional run of disastrous crop years. Empirical analysis based on experience gained over the past decade indicates that it was only when stocks of feed grains fell below 30 to 40 million metric tons, and wheat below 500 to 600 million bushels that substantial inflation in grain prices began to occur (Tweeten Rojko). A total stock of 60 million tons of grain would be expensive to maintain, however; annual carrying costs associated with a reserve of this magnitude could approach \$1 billion annually.

D. Gale Johnson is among those who question the need for such large reserves. He argues that greater price flexibility in importing countries combined with the elimination of restrictions on trade would enable the world to balance supply and demand with much smaller reserve stocks and less price instability than we have experienced recently. Importing countries, most notably the Soviet Union and those associated with the European Community, have contributed to price instability in exporting countries by attempting to maintain stable prices. By relying on imports to balance supply and demand at stable prices, they have shifted all of the instability on to exporting nations. If all prices were linked together under a system of free trade, adjustments in consumption would be more widely distributed, thus reducing the need for large carryover stocks or precipitous changes in prices to balance residual supplies and demand.

Johnson and his colleagues have concluded that it would seldom pay to maintain emergency reserves (over and above working stocks) of more than 10 million tons. In most years, the marginal cost of holding stocks would

Jakon Carlos Artes Joseph Artes (1997)

exceed the expected increase in price, assuming the change in price was based solely on variations in total world supply relative to demand. If the probability distribution of yields remains similar to that prevailing over the past 25 years, their analysis indicates that it would be profitable to maintain excess reserves (above normal working stocks) in only one year out of five; and in only one year out of 20 would it pay to keep reserves of more than 10 million tons. Their analysis is based entirely on variations in output and hence does not take account of possible variations in demand; however, it is not unreasonable to assume that aggregate (world) demand, based mainly on the growth of population and income, increases at a relatively uniform rate each year and consequently is not a major contributor to short-run instability.

My own view is that we should begin to build up reserve stocks over the next two or three years, either publicly or privately, as crop conditions permit, without attempting to reach agreement on a specific target. Optimum carryover levels obviously may change as we learn more about world weather conditions and the policies being pursued by other countries. For this reason, I suggest a flexible policy in which we decide each year on the basis of current information whether additional stocks are required. Certainly, it would not be unreasonable on the basis of past experience to accumulate as much as 50 or 60 million tons of grain as a reserve. If or when we do build up reserves to this point, we can then decide on the basis of experience over the intervening years and perhaps somewhat better forecasts whether any additional accumulation would be worth the incremental cost. Whenever reserves threaten to become excessive, a land retirement scheme something like that in operation during the 1960s might be reinstituted.

It is more important at the moment to decide on a set of policies that will encourage stock accumulation than to try to fix a specific target for reserves. Agricultural economists can perform a useful function by developing and analyzing the consequences of alternative decision rules for the acquisition and release of carryover stocks. Such rules can be based either on prices or quantities. On pragmatic grounds, I prefer decision rules based on prices. A price rule similar to that employed in the United States under the support programs in effect in the 1960s works automatically. Farmers can be offered the opportunity to store commodities and obtain a price support loan. This puts an effective floor under prices. Resale prices can be fixed either in absolute values, or as a percentage of the floor price. Alternatively, the government could make a commitment to purchase certain quantities at a specific price and to resell commodities at another price.

Quantity rules also can be made automatic, but implementation is likely to be more difficult than with price rules. A quantity rule, for example, might specify that the government would purchase and store some fraction of the difference between actual production and a trend value whenever actual production exceeded the trend value. In parallel fashion, stocks might be released whenever production fell below the recent 5-year average, or the projected trend in output. With quantity rules, however, decisions regarding acquisition or sales would have to be delayed until after the harvest was known. Furthermore, it would be difficult to take into account changes in demand. An acquisition rule based solely on deviations from trend in output might result in purchasing stocks in a year of high prices if demand also was significantly above trend at that time.

As an alternative to government acquisition of stocks, one might simply offer to subsidize on-farm storage costs up to some maximum percentage of average grain production on each farm (e.g. 20 per cent), and let each farmer decide when and how much to sell.

No one would deny that there are risks involved in making government acquisition of grain stocks a function of prices announced in advance (either as price-support loan rates or purchase prices). If the acquisition price is significantly above the long-run equilibrium price, the government will accumulate large stocks and costs will rise. The U.S. could find itself once again propping up world grain prices unless it chose to subsidize exports. Concern over the possible loss of markets to competitors is one of the principal reasons why Congress has been conservative in raising loan rates. Agricultural Committee members, in general, would prefer to raise target prices if necessary to provide production incentives and to use deficiency payments rather than high support prices to maintain the incomes of farmers. 3/

I believe it is possible to establish price rules for acquisition and resale of commodities that would not run serious risks of excess accumulation or high government cost. Furthermore, if the spread between acquisition and resale prices were made sufficiently wide, farmers and private traders would be encouraged to hold stocks, thus making it unnecessary for the government to do so. The trick is to make the rules of the

game consistent with social objectives. To provide a reasonable floor under prices, I have proposed that loan rates for corn be raised 40 to 50 per cent from current levels (Robinson). Annual adjustments in loan rates should then be made on the basis of increments in nonland costs of production. Loan rates for other grains and soybeans should be linked to corn, taking account of relative profitability and substitutability in use. Since annual costs of storing grain now amount to as much as 10 to 15 per cent of the proposed loan rate for corn, I would suggest a resale price which is not less than 50 per cent above the loan rate, thus making it profitable to hold stocks for at least three years. This is a much wider spread between loan rates and resale prices than prevailed in the United States in the 1960s when the Commodity Credit Corporation was authorized to sell commodities at 15 per cent over the loan rate. By tripling this margin, there would be more scope for prices to rise in short-crop years and reward those willing to store commodities. In addition, it would permit prices to perform the important function of rationing consumption in shortcrop years which, in turn, would make it less necessary to hold large reserve stocks.

Trade Restrictions

In the absence of reserves, U.S. and Canadian grain prices obviously will remain extremely vulnerable to changes in export demands. If the U.S. again experiences a sharp rise in prices it will be difficult to withstand public pressure to take some kind of action, including the reimposition of export controls or selective embargoes. My own preference would be to avoid the use of such devices because I believe the short-run adverse effects of higher prices on livestock feeders and consumers are less serious than the potential long-run effects on export earnings. Our reputation as a reliable supplier already has been jeopardized. Further use of export restrictions undoubtedly would lead to even greater efforts on the part of food deficit countries to reduce dependence on imports.

But it is not at all clear that those elected to public office will be willing to sacrifice the short-run interests of consumers for potential long-run gains. If one accepts the premise that export controls are a political necessity in a period of sharply rising domestic prices, then it can be argued persuasively that it would be preferable to have rules worked out in

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advance rather than to rely on ad hoc decisions of the Secretary of State or the Secretary of Agriculture.

A number of thoughtful individuals are now pressing for the establishment of guidelines to govern the imposition of export restrictions so that traders, farmers and importing countries would know in advance what to expect. This is clearly a "second best" solution, but it would represent an improvement over what has been done in the recent past. Decision rules based on market price again have an advantage over quantitative rules. If traders and importing countries were warned in advance that a given price increase (e.g. an increase of 100 per cent above the current loan rate) would result in the imposition of export controls, it might serve to moderate price increases and encourage importing countries to stretch out or defer imports. This also would offer an additional inducement for importing countries to acquire some reserves, thus reducing the need for exporting countries to carry large stocks.

Conclusions

The foregoing review of both the politics and economics of agricultural stabilization policies in the United States leads inescapably to the conclusion that there is neither a vast supply of innovative ideas waiting to be explaited nor a great demand for new programs. In this respect there may be a significant difference between the two countries. Just why farmers should exhibit a somewhat greater tolerance for price instability south of the border is not at all clear to me, but it may be due to the fact that thus far, price fluctuations have been more up than down which is a welcome change from the situation prevailing prior to 1972. While price instability has resulted in a temporary squeeze on the incomes of livestock feeders and dairymen, it has brought prosperity to grain producers. For many other farmers, the economic environment has not changed appreciably since the recent boom has been confined mainly to export crops. Instability is still a problem for producers of fruits, vegetables, poultry and eggs, but no one has been devoting much attention to programs for these commodities. Farmers obviously would like to stabilize prices at a high level, but given the

choice between stable prices at a low level as in the 1960s and fluctuating prices such as they have experienced recently, the majority would opt for the latter alternative.

Among agricultural economists, there is a substantial measure of agreement that action should be taken to moderate price fluctuations (Brandow; Cochrane; Houck: Tweeten). Most analysts concentrate on reserve policies for grains. In addition, Cochrane advocates negotiating sales agreements, both as to volume and prices, with state trading nations and preserving the option of instituting export controls as a second line of defense against price increases if reserves are inadequate. Supply management programs are suggested as a second line of defense against price decreases after reserve stocks have been built up to a reasonable level.

Some moderation in price fluctuations clearly is desirable to avoid overcommitments of resources, inflation in land values, and possible cobweb effects. But I believe there is danger in overemphasizing price stability as an objective. In general, grain prices in the United States were held within limits which were too narrow in the 1960s. There was no incentive for private traders or importing countries to store grain, and consequently a disproportionate share of the costs of maintaining reserves was absorbed by the U.S. government. A somewhat greater band of flexibility than prevailed in the previous decade would be more appropriate under present world conditions. In my view a reasonable compromise between too much and too little instability can be achieved with only modest changes in existing U.S. policies for grains and soybeans. The principal changes required are: first, to raise price-support loan rates for grains to more realistic levels so as to encourage production and some accumulation of reserve stocks; and second, to widen the spread between loan rates and resale prices so as to provide incentives for farmers, private traders and importing countries to acquire and hold reserves. In my view, a spread of around 50 per cent between acquisition and resale prices would be sufficient for this purpose. Such a range would permit prices to perform the essential function of rationing use in short-crop years and encouraging additional production if needed without exceeding the bounds of political tolerance.

 $\label{eq:constraints} \varphi_{i,j}(x) = (1 + i x_{i,j}) + \varphi_{i,j}(x) + \varphi$

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Footnotes

- 1/ Trade restrictions also have been used as an instrument to influence the prices of dairy products and beef. Import restrictions on cheese were relaxed in 1974. This action coincided with an increase in domestic production. As a result, dairy product prices, and also prices for fluid milk which are closely linked to the prices of butter and cheese dropped precipitously. Beef import restrictions were tightened in 1975 in an attempt to bolster the prices of nonfed beef.
- Milk pricing is a possible exception. The present formula for pricing milk under federal orders is now under attack because it is based on the prices paid for milk by butter and cheese plants in the upper Mississippi valley. These prices have proved to be highly unstable in recent years, fluctuating over a wide range in response to small changes in the supply/demand balance for cheese and butter.
- Deficiency payments are authorized under the Agriculture and Consumer Protection Act of 1973, but none have been paid thus far simply because actual market prices have exceeded the relatively low target prices mandated by Congress. Income supplements in the form of disaster payments also are authorized for producers of wheat, feed grains and cotton under the 1973 Act. Payments financed out of general tax revenue have been made to farmers who were especially hard hit by flooding and by drought in 1974 and 1975.

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