Canada's Western Grain Stabilization Program: An Option for U.S. Farm Policy?

Special Study

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CANADA'S WESTERN GRAIN STABILIZATION PROGRAM: AN OPTION FOR U.S. FARM POLICY?

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The Congress of the United States
Congressional Budget Office

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PREFACE

Among the issues the 99th Congress will consider in reauthorizing the Agriculture and Food Act of 1981 are possible approaches to stabilizing farm incomes. At the request of the Senate Agriculture, Nutrition, and Forestry Committee, this special study was prepared to examine Canada's Western Grain Stabilization Program as an option for U.S. farm policy. In keeping with the Congressional Budget Office's mandate to provide objective and nonpartisan analyses of issues before the Congress, no recommendations are offered.

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CHAPTER I. SUMMARY

As the Congress considers reauthorization of the 1981 Agriculture and Food Act, it may be helpful to review alternative approaches to the present price support programs. In particular, programs aimed at stabilizing farm income rather than commodity prices appear worthy of consideration. This paper reviews one such program, Canada's Western Grain Stabilization Program (WGSP), and its implications for domestic farm policy.

THE WESTERN GRAIN STABILIZATION PROGRAM

The WGSP was started in 1976 to provide greater cash flow stability for crop farmers in western Canada. It is designed to protect all producers' net cash flow collectively rather than ensure stable net cash flow for individuals. Stabilization payments are made to farmers when annual net cash flow--the difference between total sales receipts for the seven eligible crops and the total cash costs of producing them--falls below the average for the previous five years. A participating producer receives payment in proportion to the levies he has paid into a stabilization fund. The annual levy is currently 1.5 percent of his crop sales, and the Canadian government contributes another 3.5 percent of all producers' sales to the fund.

The WGSP has proved to be a workable program. Participating producers have received payments twice in the 1976-1983 period, in 1978 and 1979. Since 1979, however, rising sales volumes have tended to offset falling prices and rising production costs. Thus annual net cash flow has remained above the five-year average and payments have not been triggered even though some crop producers have experienced financial distress. Accordingly, the Canadian government recently legislated changes in the WGSP to make it more responsive to producers' needs. The most important change is a second payout trigger based on net cash flow per metric ton of crop sales in addition to the original trigger of total net cash flow.

U.S. FARM POLICY

Farm policy in the United States is influenced by two principal goals: (1) to stabilize farm prices and the incomes that farmers receive; and (2) to raise farm incomes above the levels that would prevail under market conditions alone.

The goal of income enhancement has dominated farm policy in recent years, somewhat in contrast to the trend toward more market-oriented farm programs that began in the 1960s. But many of the programs used for income enhancement--such as farmer-owned reserves and nonrecourse loans, in conjunction with reductions in planted acreage--are best suited for stabilizing prices rather than enhancing incomes. As a result, the farm programs have become quite costly to taxpayers: price-support outlays reached a record $18.8 billion in fiscal year 1983 and under current policy would average $11.8 billion per year through 1989. At the same time, these programs appear less able to influence farm economic conditions than in the past.

This study examines the Canadian stabilization program as a possible approach to stabilizing the incomes of U.S. crop farmers. The study concludes that crop-specific net cash flow programs could work, if supported by farmers, the Congress, and the Executive. They appear to be technically feasible, and they would probably require lower federal outlays than do current programs that include deficiency payments. While protecting producers in the aggregate against declines in income, they would not lessen the incentives for individuals to operate efficiently.

On the other hand, this kind of program is designed to stabilize rather than to increase long-term farm income, and hence it implies a market-oriented approach to farm incomes that would accept the average outcome that the markets provide. Such a program would require both the Congress and the Executive Branch to consider a corresponding change in overall farm policy--one that would seek to stabilize farm income without attempting to raise prices above market-clearing levels.

CHAPTER II. THE WESTERN GRAIN STABILIZATION PROGRAM

In Canada, government intervention in agriculture takes several different forms. Both the federal and provincial governments have programs to stabilize returns to the farm sector. Canadian policy generally emphasizes stabilization of income (or net margins) for agricultural goods that are exported, and price stabilization for those sold primarily on the domestic market. 1/ In addition, most major crops are covered by all-risk crop insurance; this is a joint program of the federal and provincial governments, with farmers paying part of the costs.

The main objective of the Western Grain Stabilization Program is to protect crop producers in the Prairie Provinces--Alberta, British Columbia (Peace River area), Manitoba, and Saskatchewan--from uncertainty and variation in net cash flow resulting from short-term price fluctuations, reductions in marketings, and increases in production costs. The WGSP offers group protection to producers, but it does not aim to ensure stable returns for individuals. In this sense it is not insurance. 2/ It covers producers of the major crops of western Canada--wheat, barley, oats, rye, flax, rapeseed, and mustard seed. 3/ These crops provide about 60 percent

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1. Price stabilization programs are authorized by the Agricultural Stabilization Act of 1958. They apply to corn, soybeans, oats, and barley grown outside of the area covered by the Western Grain Stabilization Program, and to slaughter cattle, hogs, sheep, and industrial milk. Under these programs, payments are made when the final producer price falls below 90 percent of the previous five-year average adjusted for changes in cash production costs.

2. The group of participating producers transfer risk to the government and they pay a portion of the costs of the "insurance" against net cash flow losses. But the WGSP is not a pure insurance program that affords individual protection against cash flow losses by pooling risks across a large number of similarly exposed individuals. With pure insurance, pooling allows the risk for a group as a whole to be estimated with a fair degree of accuracy, even though each individual's exposure to loss may be quite unpredictable.

3. Wheat accounts for about two-thirds of the total crops marketed under the WGSP, and barley for about a quarter.

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of farm cash receipts in the Prairie Provinces, and the crop industry is central to the regional economy.

The WGSP is intended to mesh with a market-oriented agricultural policy and to contribute to income stability and efficiency in resource allocation. Crop producers make production decisions based upon expected market returns, but if these expected returns are not realized in the short run, the WGSP protects their net cash flow. The emphasis of the WGSP is thus on stabilizing income rather than enhancing it. A single program for all the major crops was considered sufficient since in western Canada these crops are fairly interchangeable in production. It was also favored from the viewpoint of efficiency, since crop-specific programs could have direct and undesirable effects on resource allocation. (For example, expected payouts under a wheat program could encourage wheat production at the expense of other crops.)

HOW THE WGSP WORKS

The key element in the WGSP is the stabilization payment to participating producers. This is determined through a series of steps, the first of which is calculation of the stabilization payment for all producers.

- First, **net cash production expenses** 4/ for the seven covered crops sold commercially are deducted from **total sales receipts** (excluding stabilization payments) to give **net crop proceeds**, as shown in Table 1.

- Second, the resulting **net crop proceeds** are adjusted to reflect production actually sold off-farm by eligible producers (net of on-farm uses such as livestock feed) to give total **net cash flow.**

- Third, the **net cash flow** is compared to the five previous years' **average net cash flow.** If it is smaller than the average, the difference is the **potential stabilization payment.**

- Lastly, the **stabilization payment** is calculated by multiplying the **potential stabilization payment** by the **participation ratio**--the percentage of all crop producers participating in the WGSP.

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4. Production expenses each year are based on a farm expenditure survey conducted by Statistics Canada. Eligible cash production expenses include seed, fertilizer, pesticides, hired labor and custom work, machinery operation, taxes, utilities, irrigation, insurance, and interest (only on operating capital).

TABLE 1. CALCULATION OF WESTERN GRAIN STABILIZATION PROGRAM PAYMENTS (In billions of dollars)

		1977	1982
(1)	Total sales receipts for all crops	2.870	5.852
(2)	Total cash production expenses	1.454	3.120
(3)	Net cash production expenses for crops sold off-farm--line (2) adjusted a/	1.076	2.236
(4)	Net crop proceeds--(1)-(3)	1.794	3.526
(5)	Net cash flow--line (4) adjusted for eligible sales of actual producers b/	1.211	2.246
(6)	5-year average net cash flow	1.365	1.834
(7)	Potential stabilization payment--(5)-(6)	0.154	None c/
(8)	Participation ratio--proportion of total producers participating	0.740	0.770
(9)	Actual stabilization payment--(7) x (8)	0.115	None

a. Total cash production expenses are multiplied by the percent of total crop production sold off-farm.

b. Eligible sales exclude the value of crops sold above the maximum eligible receipts level ($60,000 since 1982). In 1977, eligible sales were about 74 percent of total sales. In 1977, actual producers (those who qualified for the WGSP) accounted for about 92 percent of total sales. Thus, in 1977 net cash flow was about 68 percent (.74 x .92) of net crop proceeds.

c. No payment was made in 1982 because net cash flow was larger than the five-year average.

After the **stabilization payment** for all producers has been determined, each participating producer's share is calculated. This is based on the participant's levy--contribution to the stabilization fund--independent of his net cash flow.

$$\frac{\textbf{Participant's Total 3-Year* Levies}}{\textbf{Total of All Producers' 3-Year* Levies}} \times \textbf{Total Stabilization Payment} = \textbf{Participant's Payment}$$

Participant's Total 3-Year* Levies	/	Total of All Producers' 3-Year* Levies	X	Total Stabilization Payment	=	Participant's Payment

* Current and past two years.

Under this system, an individual farmer's payment is triggered by industry results, not by his specific situation. His net cash flow may thus be above or below his five-year average, even though the opposite holds for the industry. If he has poor yields, for example, his net cash flow may be lower than his five-year average. On the other hand, larger acreages and good yields may raise his net cash flow above his five-year average.

Payments for 1977 and 1978 were made to producers in two installments in April-May and October of the following year. The delay resulted from the fact that production cost data are not complete until about a year after harvest. The partial payment in April-May was based on the best estimate of the total payment.

Participation

Participation in the WGSP is voluntary--up to a point--for eligible producers. Most producers were automatically enrolled in the WGSP at its inception in 1976, and were permitted to withdraw before December 31, 1978. Since 1976, new producers have been automatically enrolled; they may withdraw before December 31 of their third year of participation. In the future, producers may opt out of the program on the tenth anniversary of the WGSP in the 1986-1987 crop year, and thereafter in 1996-1997. Those who withdraw are given one opportunity to rejoin, but only as conditional participants for a three-year period during which they receive 90 percent of any stabilization payment. Eligible producers include qualified farming companies, cooperatives, and partnerships. Non-Canadians and landlords are excluded from participation.

A participating producer pays a levy only on the first $60,000 of crop sales each year. This **maximum eligible level of receipts** is also the maximum on which he can receive a stabilization payment. Thus, a producer with crop sales of $60,000 or less is fully covered--his net cash flow on all sales is protected. On the other hand, a producer with sales more than $60,000 is covered on less than his total sales. The maximum receipts level was $25,000 until 1979, when it was raised to $45,000 and remained there until 1983.

Stabilization Account

Crop producers and the Canadian government make annual levy payments into a stabilization account. The maximum total levy from these two sources is 7 percent of eligible crop sales receipts. Initial estimates were that a total levy of 6 percent of crop sales receipts would result in a workable, self-supporting program over a 20-year period.

The current producer levy is 1.5 percent of eligible crop sales receipts. In 1984, this meant that the maximum levy for an individual was \$900--1.5 percent of the \$60,000 maximum eligible level of receipts. The producer levy is only on commercial sales, and thus excludes farm-to-farm sales and crops used on-farm. The levy is tax deductible, and stabilization payments are taxable income. The government contribution is now 3.5 percent--two percentage points more than the producer levy rate.

When the stabilization account contains a surplus, accumulated funds earn interest that is credited to the account by the government. (The interest rate is 90 percent of the average yield of 3-month Canadian Treasury bills.) But if payments are made in years when the fund is in deficit (as in 1979), the government loans funds to the stabilization account. Such loans are to be repaid with interest from the account when it returns to a surplus position.

The producer levy, which was set at 2 percent of sales receipts, can be changed in the following ways. If the cumulative interest credited to the account in a consecutive two-year period is more than one-third of the total levy paid by producers and the government in that period, the producer levy is reduced to 1.5 percent. (As it was in 1984.) If the same results occur for an additional two-year period, the producer levy is reduced to 1 percent, the minimum level. In contrast, if the cumulative interest charged against the account in a consecutive two-year period is greater than one-third of total payments into the account for that period, the producer levy is increased to 2.5 percent, the maximum level. In either case, the government contribution is two percentage points above the producer levy.

Administration

The Minister of State responsible for the Canadian Wheat Board has legislative and policy responsibility for the WGSP. Agriculture Canada (the Canadian Department of Agriculture) administers the program through its Western Grain Stabilization Administration (WGSA). The WGSA is part of the Farm Income Services Branch, which administers the programs authorized by the Crop Insurance Act and the Agricultural Stabilization Act.

Supporting Institutions

A number of organizations facilitate the operation of the WGSP. Grain companies and dealers licensed by the Canadian Grain Commission must report all purchases of the eligible grains to the WGSA and remit all levies deducted from the sales receipts of participating producers. These companies handle the bulk of the grain marketed in Western Canada. In addition, a secondary group of commercial grain traders, not licensed by the Commission, have agreed under contract to report all purchases of eligible grains. This group is given the option of collecting the levy. In cases where these designated purchasers elect not to collect the levy, producers are given the option to make voluntary contributions to their accounts. All licensed grain companies, dealers, and designated purchasers are compensated by the WGSA for their services.

A related institution is the Canadian Wheat Board (CWB), the sole marketing agent for most of the crops covered by the WGSP. The WGSA depends heavily upon the CWB permit book system, which identifies each producer. 5/ The CWB also collects and remits levies on adjustments or final grain payments to participating producers.

PERFORMANCE OF THE WGSP 6/

Although not without problems, the WGSP has proved to be a workable program for stabilizing net cash flow in the crop economy of western Canada.

Participation

Participation over 1976-1983 has included about 75 percent of crop farmers in the Western Provinces. Although producers cannot opt out after they have been in for three years, new CWB permit holders are automatically enrolled in the program and have the option of not remaining. The fact that about 80-85 percent of new permit holders have elected to stay in the WGSP in the past three years, a higher proportion than when the program began, suggests that participating farmers generally like the program.

Participation does not vary significantly among producers of different size. When crop producers are grouped into crop sales classes, the distribution of participants is approximately the same as that of producers. For example, about 82 percent of 1981 participants had crop sales of $60,000 or less, as did producers in general. Approximately 6.5 percent of

5. The Appendix provides a discussion of the Canadian Wheat Board.

6. This section draws upon information provided by Agriculture Canada (the Canadian Department of Agriculture) and the Office of the Minister of State.

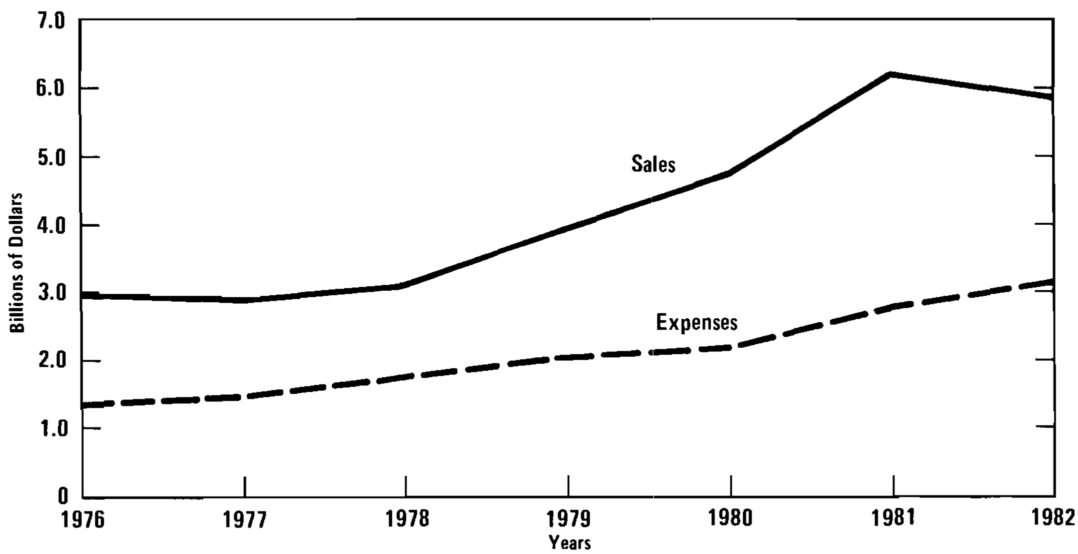
both participants and producers had sales of more than $100,000. These data suggest that the $60,000 maximum eligible receipts level is not a major factor influencing participation of larger producers.

Stabilization Payments

Crop sales and production expenses increased over the 1976-1982 period (see Figure 1). Average grain prices fell in 1977 and 1978 and then increased until 1982 when they again declined. The increasing volume of sales offset much of the impact of any decreases in prices and increases in production costs. As shown in Figure 2, net cash flow fell in 1977 and 1978, triggering payments. But in 1982 the decline in net cash flow did not trigger payments because net cash flow was above the five-year average. A rising sales volume over the period is estimated to have reduced potential payments by about 30 percent.

Figure 1.

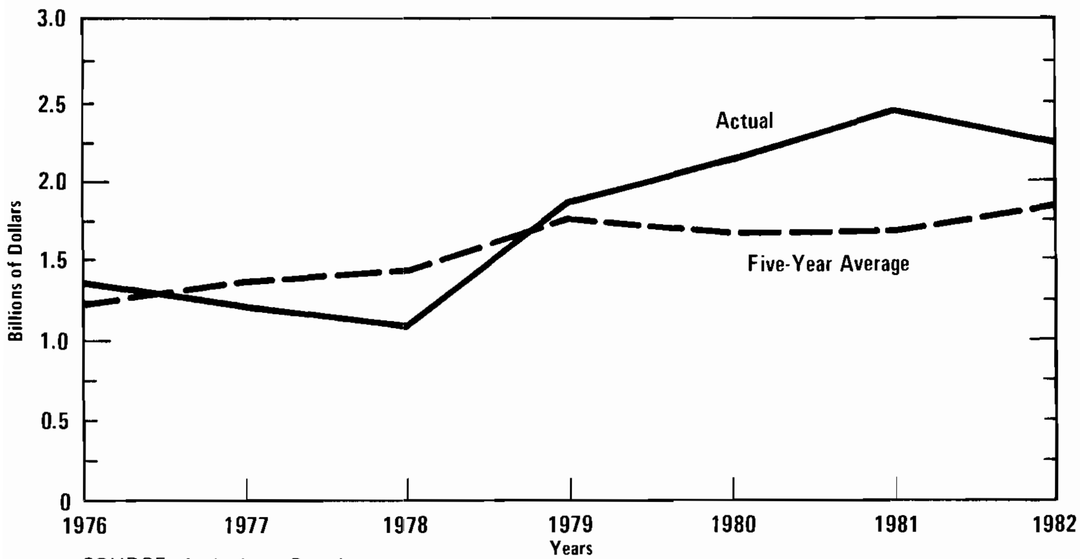
Western Grain Stabilization Program:
Crop Sales and Cash Production Expenses



SOURCE: Agriculture Canada reports.

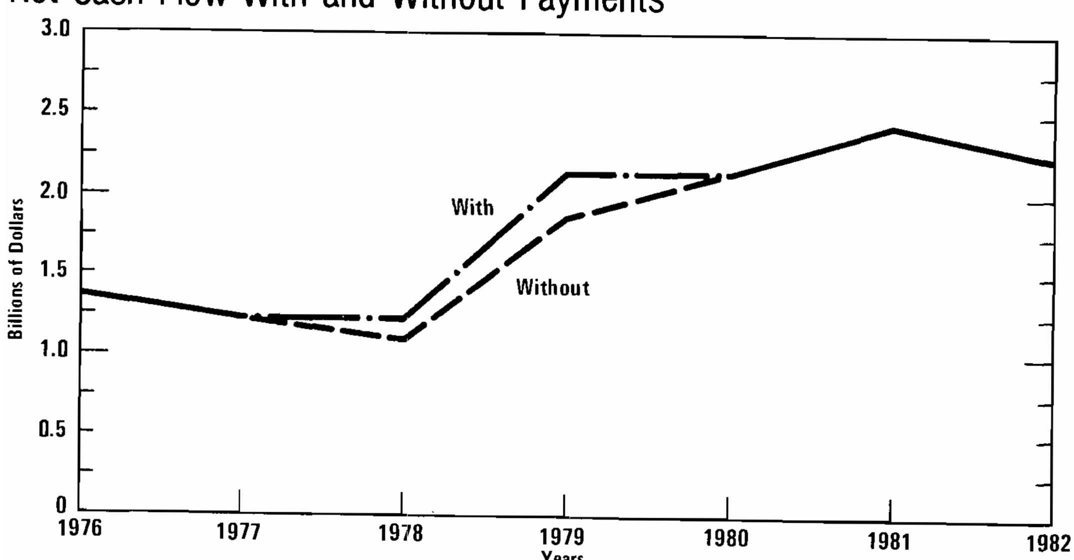
The payments for the 1977 and 1978 crops limited the downturn in net cash flow (see Figure 3). Since the payments were made in the following year, they had no effect on 1977 net cash flow, which fell 11 percent from the previous year. But they caused 1978 net cash flow to remain constant

Figure 2.
Western Grain Stabilization Program: Net Cash Flow, Actual and Five-Year Average



SOURCE: Agriculture Canada reports.
NOTE: Based on maximum eligible receipts level in effect each year.

Figure 3.
Western Grain Stabilization Program: Net Cash Flow With and Without Payments



SOURCE: U.S. Congressional Budget Office from Agriculture Canada reports.
NOTE: Based on maximum eligible receipts level in effect each year.

instead of falling by 9 percent, and increased 1979 net cash flow by five percentage points above what it would otherwise have been.

If the payments had been made in the program year, net cash flow would have dropped only 3 percent in 1977 and would have increased by 2 percent in 1978. The point is that the payments did raise net cash flow, but not in the year the crops were harvested. As a result, the payments had little effect on the year-to-year variability of net cash flow as compared to a situation of no payments.

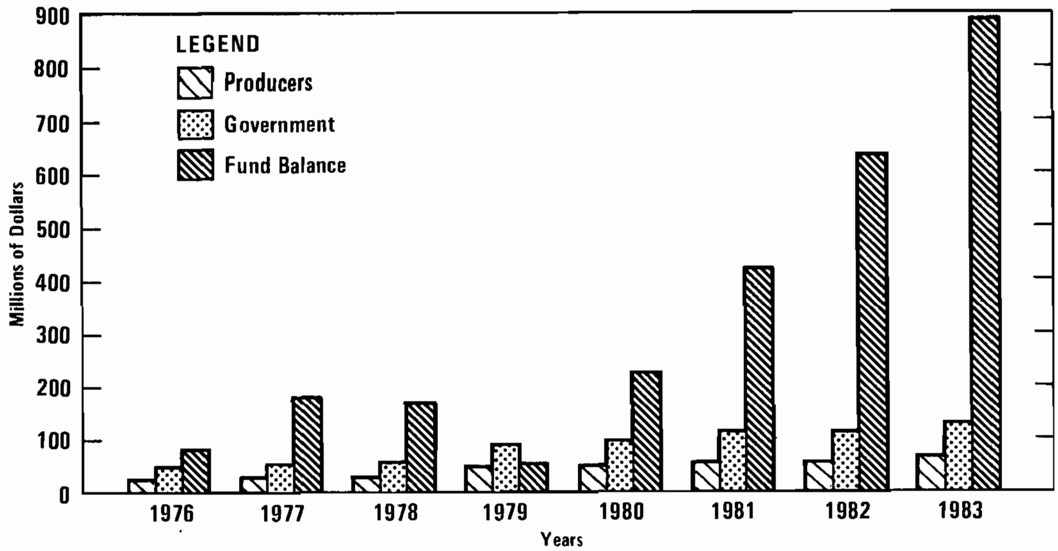
Over 1976-1983, a participating producer would have received payments larger than his total levy (excluding forgone interest). The government estimates that a producer participating in the program and making the maximum contribution through the end of 1983 had paid total levies of \$6,300 and had received payments of \$6,894. The payments were made in 1977 and 1978, however, and since then the producer has paid \$4,800 in levies and has received no payments. If this representative producer had average sales of \$25,000 in 1977 and 1978, the payments increased his net cash flow by about 15 and 30 percent, respectively. On the other hand, if the producer had average sales of \$50,000 above the then existing maximum eligible receipts level, the relative effect on net cash flow was less.

The distribution of payments is influenced by the maximum eligible receipts level. The group of producers with average sales up to the maximum eligible receipts level receive a greater proportion of the total stabilization payment than it would if the level was larger or was eliminated. Thus, the maximum eligible receipts level skews payments to producers with sales less than \$60,000, approximately 82 percent of all producers.

Stabilization Account

The total contribution to the stabilization account was \$1,048 million over 1976-1983. The government contribution was \$699 million and the total producer levy was \$349 million, about \$20 million less than total payments of \$368 million. The stabilization account had a very small balance at the end of 1979 after two years of payments (see Figure 4). The account had a balance of \$884 million at the end of 1983, including cumulative earned interest of \$204 million.

Figure 4.
Western Grain Stabilization Program: Producer and Government Contributions and Fund Balance, Including Earned Interest



SOURCE: U.S. Congressional Budget Office from Agriculture Canada reports.

Coverage

In developing the WGSP it was judged that 90 percent of all commercial grain sales should be stabilized. The rationale for this level of coverage was to protect the majority of producer incomes but not to provide an incentive for expansion. The tool to achieve this 90 percent target is the maximum eligible receipts level per producer--the $60,000 limit on the value of crop sales covered by the WGSP. In theory, 90 percent of eligible commercial crop sales would be stabilized if all producers were covered by the maximum eligible receipts level. The maximum eligible receipts level did not, however, increase fast enough to cover higher prices, yields, and production so that in 1981 only 67 percent of crop sales were covered. In 1983 the higher maximum level ($60,000) covered 81 percent of total crop sales.

RECENT CHANGES

By and large, the WGSP has been accepted by producers and has helped to keep net cash flow from falling sharply. Nevertheless, producers have been dissatisfied with certain aspects of the program. In particular, rising sales volumes have offset the impact of falling prices and increasing production costs. As a result, no payments have been triggered even though some producers have experienced financial stress. At the same time, the stabilization account has shown a growing balance.

In response to these concerns, the Parliament passed a number of amendments to the Western Grain Stabilization Act in late June 1984, designed to make the WGSP more flexible and responsive to the needs of producers. The government estimates that these changes will cause a stabilization payment for the crop year ending July 31, 1984, and for the following 1984/1985 crop year. The key changes are as follows.

Per-Unit Payout Trigger

Before the June legislation, payout was calculated solely on the basis of aggregate net cash flow. Now there will be a second payout trigger--net cash flow per metric ton of eligible sales. This will also operate on a five-year average. Its purpose is to make the program more sensitive to price and cost variation during periods of increasing marketing volumes. It is more sensitive to price declines and reduces the impact on payout calculations of increasing volumes. The first payout trigger will be maintained so that continued protection is provided against volume decreases. The actual payout in any year will be the larger amount resulting from either method of calculation.

Crop Year Basis

The WGSP has been operated on a calendar year basis. This means that final stabilization payments were not made until 10 months after the program year ended (October of the next calendar year). Since June 1984, the program has been on a crop year basis--August 1 to July 31. Sales receipts are to be measured on this crop year basis while production costs will continue to be based on the calendar year. This approach will mix crop year receipts with calendar year production expenses, but since production expenses for the 1983/1984 crop (August 1 to July 31) were incurred in calendar year 1983, and receipts were received in both 1983 and 1984, this method should bring into closer relationship cash receipts and production costs. Moreover, stabilization payments will be made within three or four months after the close of the crop year, which will be much more timely than before.

Option to Withdraw

Previously, producers had the option to withdraw from the WGSP in their first three years of participation. They will now have an additional opportunity to withdraw every ten years, beginning on the tenth anniversary of the program in 1986-1987.

CHAPTER III. APPLICATION IN THE UNITED STATES OF CANADIAN-STYLE STABILIZATION PROGRAMS

In assessing whether net cash flow stabilization programs would be feasible for the United States, it is necessary to address two problems: how to mesh net cash flow programs with current policies and programs; and the technical adaptations that would be necessary for a workable program.

INTEGRATION WITH CURRENT POLICIES AND PROGRAMS

Currently, federal support of the farm sector follows two principal approaches. The first approach is to stabilize market prices; the principal instruments for this are the nonrecourse loan program and the farmer-owned grain reserve. The second approach seeks to increase farm income through acreage reduction programs, which reduce the amount of farm commodities that reach market and thereby raise prices, and through deficiency payments made directly to farmers when commodity prices fall below target prices. 1/

A cash flow stabilization program patterned after that now used in Canada would combine elements of both these approaches. Its primary intent would be stabilization, but it would stabilize aggregate income rather than prices. Such an income stabilization program implies an overall farm policy that is market oriented, aimed at assuring producers stable incomes from the production and marketing of competitively priced products. If U.S. farm policy continues its long-term transition toward a greater market orientation, it could accommodate a net cash flow stabilization program.

A program aimed at aggregate protection for farmers' net cash flow implies accepting a greater role for the market in determining long-run commodity price and farm income levels. This would be more efficient from an economic point of view since it would provide price incentives to direct the flow of resources into and out of agriculture. Although such a program would not contribute to the present goal of enhancing farm incomes, that goal could be pursued through other transfer programs.

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1. For a more complete analysis of current farm support programs, see Congressional Budget Office, Crop Price Support Programs: Policy Options for Contemporary Agriculture (February 1984).

Putting such a policy in place would require some adjustments in current programs. First, price supports--nonrecourse loan rates--should be made flexible so as to be responsive to long-run market conditions. Second, acreage reduction programs could be eliminated, or used in a manner consistent with stabilization rather than income enhancement. Third, deficiency payments might well be eliminated, or targeted to producers with the greatest need.

TECHNICAL REQUIREMENTS

The development and implementation of a net cash flow stabilization program would require substantial planning. The basic technical requirements are relatively straightforward and do not seem demanding in terms of additional costs and institutions. Nevertheless, some important technical problems would arise.

Crop-Specific Programs

In Canada a single net cash flow stabilization program covers seven crops. A multi-crop program was developed, as opposed to crop-specific programs, because the several crops have similar production expenses and are, to a relatively high degree, substitutable for each other. Also, a single program was considered sufficient for the purpose of stabilizing the prairie economy. But in the United States the major crops--corn, wheat, soybeans, rice, and cotton--have different production costs and are produced in geographic areas that are much more dispersed. Also, U.S. producers tend to specialize.

From the U.S. perspective then, it would be necessary to have a separate program for each major commodity: corn, wheat, cotton, rice, and so on. Separate programs would raise the problem of making each program neutral in its effect on resource allocation. This is important because many producers grow more than one crop, or have the option to do so. Designing the programs so that they would not offer producers incentives to alter their production plans based on expected program returns would be a challenge. The problem could be minimized, however, by establishing identical levels of cash flow protection at less than 100 percent.

Coverage

The level of total coverage as well as the coverage afforded to producers of different size would be important issues in putting an income stabilization program in place. Under the Canadian program producers with sales above the maximum eligible receipts level do not have full protection. This "cap" is used to limit the coverage of large producers while still trying to achieve an overall coverage of 90 percent of industry sales. This means that producers with sales equal to or less than the cap have full protection and receive a larger share of total payments than they would if the cap were set higher. From a perspective of income stabilization and efficiency there are no persuasive reasons for limiting the participation of larger producers. However, the history of farm policy in the U.S. suggests that the cap would probably be set below total industry sales, thus providing only partial coverage for the largest farm operators. Alternatively, the cap could be set on a pro rata basis--limiting each producer's coverage to some proportion of his total sales. This would leave small farmers with the same proportional exposure as large farmers.

Information

In the simplest terms, two levels of information would be required, national and individual. Data at the national level would include: the volume of crop sales to primary buyers; national average farm prices; and estimated cash production costs per planted acre. This information would be used to calculate total crop sales receipts, cash production costs, and net cash flow. Such data are now collected by Department of Agriculture agencies--the Statistical Reporting Service (SRS) and the Economic Research Service (ERS). On the level of the individual producer, the necessary data would include the volume of off-farm sales to primary buyers and prices received. National average prices could be used in lieu of actual prices received to estimate sales revenues for individuals, and hence to determine each producer's eligibility, levy, and stabilization payment.

Information requirements could be simplified, however. For example, producers could contract with the government for program participation in advance of each crop year. The contracts would provide coverage for a specified volume of sales, on which a levy would be paid. This would provide some early warning as to the extent of the government's obligation. Producers would have to provide verification of their actual sales only if the payments were triggered.

Administration

The Agricultural Stabilization and Conservation Service could administer net cash flow protection programs. This agency, which manages current price support programs, could handle the tasks of determining producer eligibility, calculating and collecting producer levies, and making producer payments.

Financing

The Commodity Credit Corporation (CCC) could be the financing mechanism. Producer levies, government contributions, and stabilization payments could be readily accounted for by setting up commodity stabilization accounts for each crop program within the CCC fund.

CONCLUSIONS

There appear to be no insurmountable technical constraints to the use of net cash flow stabilization in U.S. agriculture. Even though the U.S. government is not directly involved in the marketing of grain as is the Canadian government (see Appendix A), the current institutional arrangements in this country appear compatible with cash flow stabilization. The central issue is whether such a program could mesh well with the goals of U.S. agricultural policy.

From a producer's viewpoint, a net cash flow stabilization program would mean protection against unforeseen changes in industrywide prices, sales volume, and production costs that might cause net cash flow to fall below average. Such a decline in industrywide net cash flow could trigger payments to participating producers. At the same time, an individual's net cash flow could fall because of unique circumstances that would not reflect industrywide changes and would thus not trigger a payment. For that reason, an individual producer would have incentive to continue to manage risks through crop insurance and forward pricing in cash or futures markets. He would still have to operate efficiently and decide how to deal with production and marketing risks.

For taxpayers, a net cash flow program would have the advantage of shifting a portion of stabilization costs to producers. While the budgetary costs of net cash flow programs cannot be estimated precisely, it would be reasonable to expect savings, especially if deficiency payments were eliminated or targeted to a limited set of the most needy farmers.

In summary, a cash flow stabilization program similar to that in Canada appears attractive in concept as one component of a market-oriented farm policy. If the Congress wished to pursue this concept further, it could consider authorization for studies aimed at program design and implementation. If these proved positive, a pilot cash flow stabilization program might be put in place before moving to the full program.

APPENDIX

APPENDIX. THE CANADIAN WHEAT BOARD

The mandate of the Canadian Wheat Board (CWB) is to maximize returns to Western producers from grain sales; to provide prairie grain producers with price stability; and to ensure that each grain producer gets a fair share of the available markets each year. 1/ The CWB is the sole marketing authority for wheat, oats, and barley sold for export and for these grains sold domestically for nonfeed use. Public and private buyers, processors, and retailers can buy these grains only from the CWB. Thus, sales of the CWB are one of two kinds: those made directly to other governments' buying agencies, or those made to private trading firms. For other crops covered by the WGSP (rye, flax, mustard seed, and rapeseed), the marketing system is similar to those in the United States.

The grain pricing system includes two payments. The initial payment is made when a producer delivers grain to the elevator. It is established by Order-in-Council (an executive order) prior to the crop year. This price, less handling and transportation costs to terminal ports, is a guaranteed floor price.

The second payment may be made after the crop is sold by the CWB. Total receipts from grain sales are pooled into one of six grain-specific funds. The CWB's administrative operating costs, as well as interest, insurance, storage, and terminal elevator charges are deducted from the pooled receipts. If the money in a pool after the crop is sold exceeds the initial payment plus CWB costs, the surplus is returned to producers in a final payment according to the quantity of grain they delivered. If the pool money does not cover CWB costs and the initial payments, the government makes up the deficit. A deficit has seldom occurred, however.

Under the pooling system, producers collectively reduce risk and obtain increased price stability (within the crop year) at the expense of forgoing potential higher individual gains. But since the price that producers ultimately receive is an averaged price over several months, the price pooling system slows producer response to changing world market conditions.

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1. This section draws upon Alex F. McCalla and Andrew Schmitz, "Grain Marketing Systems: The Case of the United States versus Canada," American Journal of Agricultural Economics, vol. 61, no. 2 (1979), pp. 199-211.

The CWB imposes a quota on each producer's deliveries into the commercial marketing system. The purpose is to match producer deliveries to market requirements in order to assure an even flow of grain into the market system and to give all producers an equal opportunity to sell their grain. Thus the CWB controls the quantity of grain each producer can deliver at any particular time.

Although the CWB regulates producers' deliveries, producers decide what crops to grow. The quota for a producer is derived from his quota base calculated according to his share of the land that all producers have planted to crops. A producer may allocate any part of his quota base, or all of it, to the delivery of a particular kind of grain. The number of acres that a producer plants to each grain determines the quantities of that grain the producer will be able to deliver to an elevator under quotas authorized from time to time. Through the quota system, the CWB manages flows to the market and has at times forced producers to hold sizable inventories. Large inventories may cause producers to reduce acreage; thus, the quota system can serve as an indirect means of regulating national output.

The CWB does not actually handle grain. It owns no storage facilities; virtually all off-farm storage space is privately or cooperatively owned. Although grain-handling facilities are privately owned, maximum primary and transfer elevator tariffs are established with consultation annually by the Canadian Grain Commission. About 80 percent of the primary elevators are owned by cooperatives.

The Grain Transportation Authority controls grain transportation, but the CWB is responsible for the transportation of grains within regional shipping areas. Rail shipping rates for grain for export are fixed by statute. In Canada the primary and dominant mode of transportation is the two transcontinental railroad systems--one privately owned (the Canadian Pacific) and one publicly owned (the Canadian National). Freight rates for grain shipped on the Great Lakes are determined through negotiation by the CWB and private shippers.