Staff Papers Series

Staff Paper P86-17 May, 1986

How to Pay for Agricultural

Income Supports

Carlisle Ford Runge

Department of Agricultural and Applied Economics

University of Minnesota
Institute of Agriculture, Forestry and Home Economics
St. Paul, Minnesota 55108

How to Pay for Agricultural Income Supports

Carlisle Ford Runge
Department of Agricultural and Applied Economics
and
Hubert H. Humphrey Institute of Public Affairs
University of Minnesota

A paper presented at the American Association for the Advancement of Science (AAAS) Annual Meetings, Session on "A Proposed New Structure for U.S. Food and Agricultural Policy," Philadelphia, PA. May 28, 1986.

Abstract

This paper examines the impact of deficit reductions on agricultural price support spending, and proposes several policy innovations designed to remove agricultural programs from the entitlement category. First, agricultural program costs are analyzed in relation to deficit reduction requirements resulting from recent legislation. Second, price support and food stamp programs are proposed as a separate budget category to be financed through an excise tax on retail food sales. Third, the incidence of this tax on consumers is considered, and compensation for lower income groups is proposed via expanded eligibility for the food stamp program. A final section presents some conclusion for policy.

Introduction

Agricultural income is supported by federal farm income programs as an entitlement. Like other entitlement programs such as Medicare, Medicaid, and Social Security, the government agrees to pay the cost of income support to eligible recipients out of general tax revenues. Together, Medicare, Medicaid, Social Security and farm price supports have risen from $20 billion in 1965 to $300 billion in 1985. Total entitlements have amounted to as much as 42 percent of the federal budget in recent years. Because these payments fluctuate with general economic conditions, and have grown rapidly, they are an unpredictable and substantial contribution to the federal budget deficit. It is now widely recognized that these entitlements (together with defense spending) cannot grow at current rates without putting continued upward pressure on federal budget deficits. Either taxes must be raised or spending must be cut deeply across entitlement categories and defense if budget deficits are to be brought under control.

In agriculture, the exact mechanisms are complicated, but the principle of entitlement is simple: farmers' incomes are supported to grow crops in a way that increases with the acres of crops grown. Thus, agricultural entitlements increase as the production unit increases in size (Cochrane, 1985). In this way, farmers' incomes are supported if they agree to conform to the guidelines of the support programs, which specify how much acreage and what crops are eligible for payment and how much farmers will be paid by crop and per acre in the coming marketing year. While farmers obviously have gained from this arrangement (with the largest farms gaining most), consumers have also gained substantially through lower food prices.

In recent years, the cost of supporting farm income has risen dramatically as increased production and stagnant demand have created unprecedented domestic and international surpluses. These surpluses have put strong downward pressure on agricultural prices and incomes. In an attempt to maintain farm incomes, the 1985 farm bill (the Food Security Act) freezes target income support levels for two years. At the same time, it lowers minimum support prices in an effort to create a vent for U.S. farm surpluses in world markets. The result, to be explained in more detail below, is a huge budget exposure - primarily because farmers are entitled to the difference between the frozen target price level and the minimum price - a gap which has widened dramatically as minimum (and market) prices have fallen. The resulting transfer, or "deficiency payment," can be $50,000 per farmer and in some cases more. These payments, together with food stamps, are the two largest components of agricultural program spending, accounting for an average of 64.36 percent of the USDA budget from 1973-1986.

This paper considers how agricultural spending, as an important part of the entitlement budget category, can be refinanced. Its premise is that what one pays for agricultural programs cannot be separated from how one pays for them. Three linkages from the targets of policy to the instruments of reform will be examined. The policy targets are (1) budget exposure in agricultural program spending; (2) income instability in the agricultural sector; and (3) hunger and inadequate nutrition. The instruments proposed to deal with them are (1) a separate budget for agricultural programs, based on a fixed level of income support; (2) payment of direct income transfers to farmers financed through an excise tax on retail food sales; (3) expansion of federal food stamp programs to compensate poor consumers for losses

suffered from such an excise tax. The consequences of such reforms, it is argued, would be (1) reduced budget exposure; (2) a direct financial linkage from farmers to the consumers they ultimately serve; and (3) direct attention to the problem of hunger and inadequate nutrition.

Policy Targets

(1) Budget Exposure in Agricultural Program Spending

How much will the Food Security Act of 1985 cost? Nobody knows for sure, and no one will know until the government deficiency payment checks to farmers are actually issued. Virtually all observers agree that $52 billion over three years, the Congress' original cost estimate, is low. Current estimates range as high as $75 billion, suggesting Congressional prediction error of just under 50%.

Why are farm program costs so unpredictable? Each year, USDA implements the price and income support programs decided on by Congress. In crop year 1984-85, for example, the basic program for corn was set by the 1984 provisions of the four-year 1981 farm bill. The "target" price was set at $3.03, indicating how much Congress felt farmers "ought" to be paid per bushel of corn. The "loan rate," which sets a floor or minimum price for corn, was set at $2.55.[1] Together, these prices determine the minimum and maximum prices available to corn producers, assuming the market price falls somewhere in-between (see Figure 1). If the market price is less than the loan, the loan rate is the effective minimum price. The total payment to

---

[1]The loan rate sets a minimum price because it is the price at which the Commodity Credit Corporation (CCC) extends credit to farmers producing corn and other crops. If the market price falls below the loan rate, the farmer can surrender his crop to the CCC in lieu of paying back the loan. This "non-recource" provision makes the loan rate an effective minimum price.

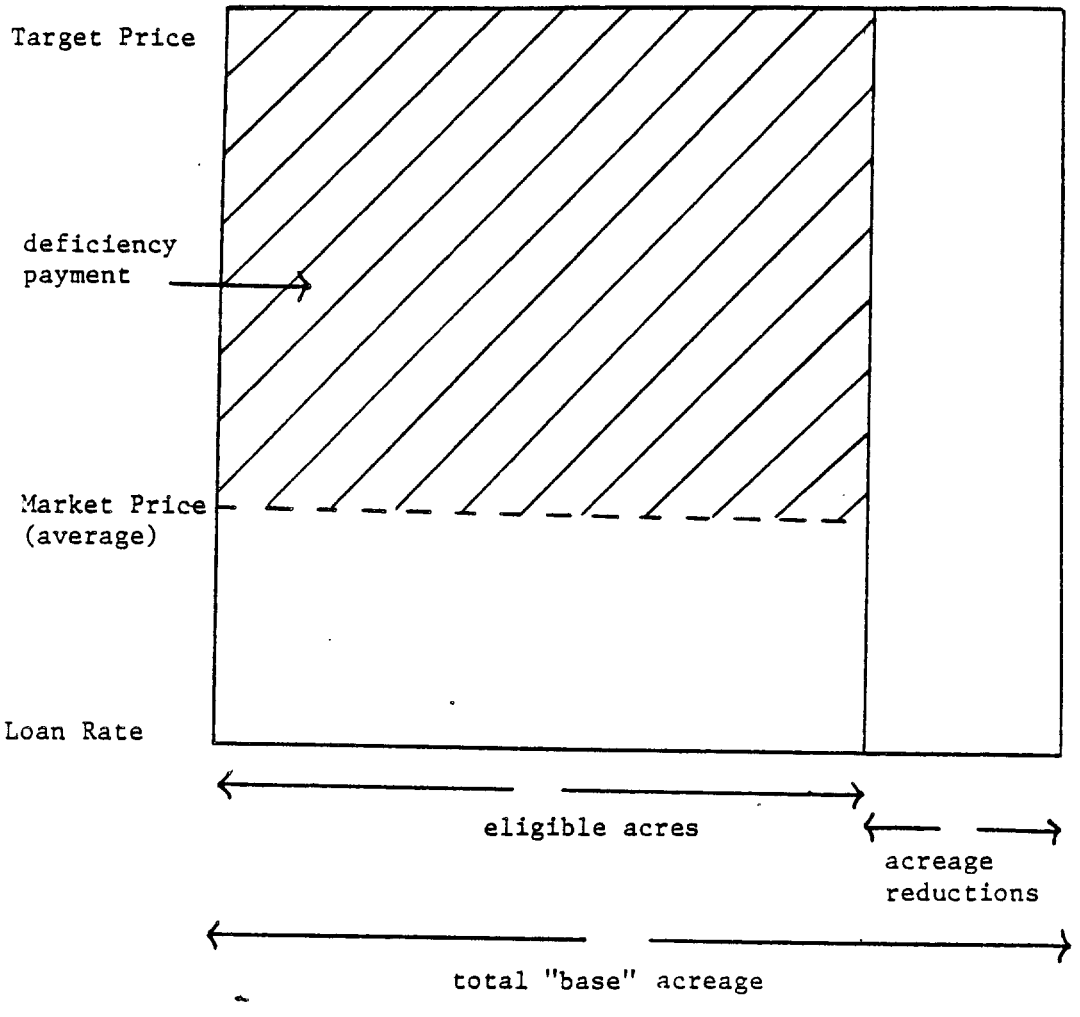


Figure 1: The Price-Income Support Mechanism

the farmer is the difference between the target price and the market price (or loan rate) multiplied times yield on eligible "base" acreage after accounting for official acreage reductions or retirements.[2] When the market price falls, deficiency payments rise, all other things equal. As falling market prices approach the loan rate, many farmers surrender their crops to the government in lieu of repayment of government crop loans, and surpluses are stored at federal expense.

Frozen target prices, together with authority granted to the Agriculture Secretary to dramatically lower loan rates, are the primary feature of the new 1985 farm legislation. While corn target prices remained frozen at $3.03 per bushel until 1987-88, loan rates fell to 1.92 in 1986-87, and can fall again to 1.81 in 1987-88. At the same time, a huge glut of commodities has pushed market prices down near the loan, raising deficiency payments to record levels as fewer and fewer farmers see any alternative to market their crops to anyone but the government.

While a theoretical cap of $50,000 per farm on deficiency payments exists, the lowered loans ordered by the Secretary of Agriculture allow this cap to be exceeded, and in practice many individual farmers will find devices to become more than a single farm at a time, collecting multiple deficiency payments. The result is that government deficiency payments are expected to

---

[2]The primary mechanism by which acreage is reduced is the "set-aside," in which eligibility for price and income support is made conditional on retiring a certain percentage of base acreage from production in the covered commodities. However, the government may also pay outright for such reductions. These "paid diversions," together with special programs such as the "conservation reserve," result in additional direct transfers to farmers in return for agreements not to grow on certain areas of land. Base acreage and yields per acre are calculated on the basis of individual farm records and county averages over the last 3-5 years.

make up a greater and greater share of farm income. Recent estimates by my colleagues at the University of Minnesota (Bailey, Byron and Houck, 1986), based on a computer forecasting model, project that government payments will account for 45.5 percent of U.S. net farm income in 1986, 63.4 percent in 1987, and 77.3 percent in 1988 (Table 1). U.S. farmers, in other words, will become largely wards of the state over the next three years. Yet as critics of the programs have emphasized, a $50,000 entitlement is hardly welfare. As agricultural program costs grow, together with budget deficits, urban members of Congress are increasingly restive about paying them.

If cost figures for agricultural programs were predictable, their contribution to federal deficits could at least be anticipated in advance. Unfortunately, they are notoriously difficult to forecast. The difference between estimated and actual expenditures for farm price supports is shown in Figure 2 for the years 1973 to 1986. As is clear, inaccurate predictions account for disparities of billions of dollars in a given year. Since the deficiency payment to which farmers are entitled fluctuates with market prices and with the number of farmers who sign up for the programs in a given year, these payments can only be predicted under current programs if market prices (and thus farm gross revenues) remain relatively stable. Even with market prices at or below loan levels, total government obligations are simply unknown until full sign-up figures become available. Unfortunately, low market prices and heavy sign-ups (the current situation) are the most budget-busting combination of all.

Ironically, a final source of budget uncertainty is Congress' home cure for budget irresponsibility: the Graham-Rudman-Hollings (GRH) deficit

Table 1

Policy Projections of Farm Income and Government Payments Under the Food Security Act of 1985

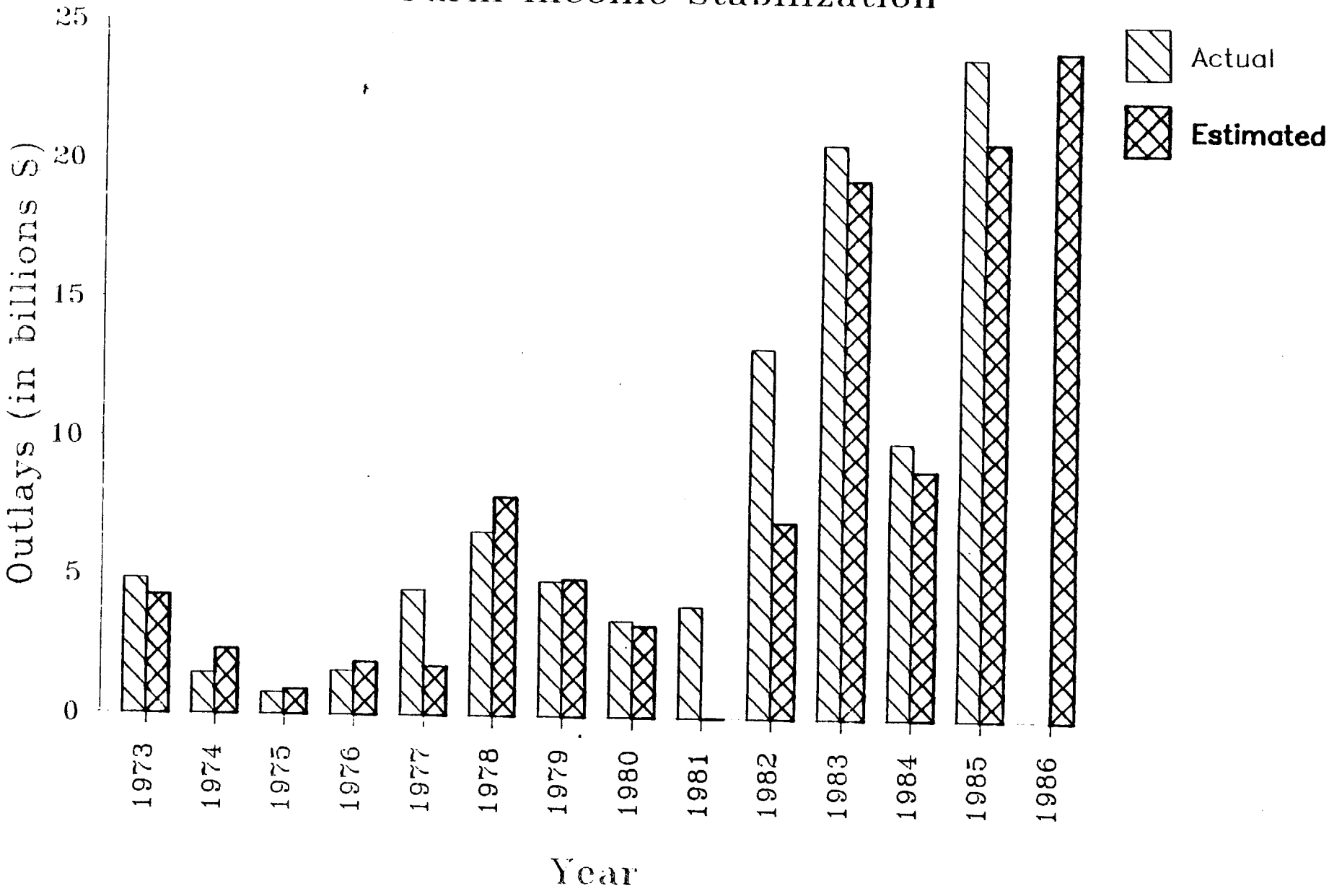
Variable/Year	1984	1985	1986	1987	1988	1989
			Billions of Dollars			
Cash Receipts From Marketings						
Crops	69.5	69.9	63.6	55.1	54.4	54.7
Livestock	72.7	68.7	68.6	65.6	64.3	65.3
Direct Government Payments and Subsidies	8.0	8.0	10.7	14.2	15.0	14.4
Total Farm Cash Receipts	153.2	149.6	145.9	138.0	136.7	137.5
Net Farm Income	34.5	25.7	23.5	22.4	19.4	20.1
Direct Government Payments and Subsidies as a Percentge of Net Farm Income	23.2%	31.1%	45.5%	63.4%	77.3%	71.6%

Source: Bailey, Byron and Houck, 1986.

FIGURE 2

Government Expenditures

Farm Income Stabilization



reduction plan. GRH sets maximum allowable federal deficits through 1991, and mandates automatic across-the-board cuts in about half the federal budget in any year if Congress and the president cannot meet predetermined deficit reduction targets. Half of the cuts are to come from defense, and half from the remaining portion of the budget. However, major parts of the budget including food stamps, Social Security, Medicaid, and large parts of Medicare are ineligible for cuts. This leaves agricultural price supports especially exposed. Exactly how exposed depends on whether the automatic percentage cuts go into effect, or whether selective cuts are made based on Congressional and presidential agreement. In either case, the deficiency payments made to farmers in each year will be reduced, but the exact percentage reduction from year to year remains unknown. Moreover, since the total deficiency payments made to farmers are themselves unpredictable from year to year, the base against which percentage cuts will apply is itself unknown, compounding the problem of estimating agricultural deficit reductions under GRH. Even if GRH is found unconstitutional by the Supreme Court, budget pressures will make some form of cuts in entitlement programs, together with tax increases, inevitable if budget deficits are to be reduced substantially.

These budgetary difficulties have led some policy analysts to consider taking agricultural support programs out of the entitlement category. In these proposals, farm programs would be allocated a fixed amount of revenues in a given year, with a binding budget constraint. Once the budget was fixed in this way, it would be up to the Secretary of Agriculture how to spend it. The primary difficulty with this idea is that the revenue demands of the current system fluctuate too much to allow budgets to be accurately

predicted. Unless an income support mechanism can be found that allows revenue requirements to be fixed in advance, the unpredictable impact of agricultural program spending on federal budget deficits will continue.

(2) Income Instability in the Agricultural Sector

The evolution of agricultural programs is closely related to a fundamental characteristic of farming: risk and uncertainty arising from instability in farm prices and incomes. This instability has increased in recent years, as U.S. farmers have been more and more dependent on international markets. In a recent analysis of U.S. corn market, we found that the instability of corn prices received increased by 176.6 percent in nominal terms and 262.5 percent in real terms when measured as the variation around trend from the 1960's to the early 1980's. Gross revenues to farmers from corn sales increased in variability by 214.0 percent in nominal terms and 271.7 percent in real terms over the same period (Myers and Runge, 1985). These figures are shown in Table 2. Further analysis revealed that demand side factors (such as increasing reliance of U.S. corn producers on export markets) played an increasingly important role compared with supply side factors (such as weather) in accounting for instability.

This instability has created a rationale for government intervention in farm prices and incomes, although the actual impacts on farmer and consumer welfare require further study (see Myers, 1986). It is clear, however, that instability in farm prices and incomes - and government programs to offset them - account for substantial variations in program costs from year to year. As U.S. agriculture has become more open to world trade, instability in farm prices and income has been transmitted to government spending requirements as deficiency payments rise and fall in relation to market prices and

Table 2

Increased Instability in the U.S. Corn Market in the 1970s and Early 1980s

Variable	CVM[a]			CVT[b]			F-Statistic[c]
	1962/63 through 1970/71 %	1971/72 through 1982/83 %	Percentage Increase %	1962/63 through 1970/71 %	1971/72 through 1982/83 %	Percentage Increase %	
Farm Price of Corn	7.2	23.6	227.8	7.7	21.3	176.6	31.2
Deflated Farm Price of Corn[d]	9.4	26.9	186.2	7.2	26.1	262.5	14.7
Gross Farm Revenue from Corn[e]	11.4	30.4	166.7	5.0	15.7	214.0	97.6
Deflated Gross Farm Revenue from Corn[d]	4.8	17.9	272.9	5.3	19.7	271.7	34.9
Quantity of Corn Sold Off Farms	9.8	15.4	57.1	6.3	8.0	27.0	3.9
Production of Corn	10.2	17.2	68.6	8.4	9.1	8.3	3.0

a Coefficient of variation measured as deviations from the mean.
b Coefficient of variation measured as deviations from a linear trend.
c Tests the null hypothesis that the variance of the disturbance term from a linear trend model for the 1970s and early 1980s is equal to the variance of the disturbance term from a linear trend model of the 1960s. The alternative hypothesis is that the variance of the disturbance in the 1970s and early 1980s is greater than the variance of the disturbance in the 1960s. At the 1 percent level of significance the critical F value is 6.6
d Deflated by the consumer price index (base year 1967).
e Farm price of corn multiplied by quantity of corn sold off farms.

Source: Myers and Runge, 1985.

program participation. This situation has also substantially complicated the risk-management problem of farmers.

In response to these forces, Kramer and McDowell argue in a separate paper in this session that the collective risk faced by the agricultural sector creates a demand for assured net farm income to the sector as a whole. They propose a program of income transfers to farmers not unlike current deficiency payments, but operating through a scheme in which negative tax credits would be issued to producers to provide a guaranteed income floor. If, as they propose, this floor were set at a sufficiently low level, it would have a minimal impact on market clearing prices and would serve many of the current functions played by loan rates. In contrast to loan rates, however, such a policy would target farm income rather than farm prices as the relevant policy objective. In addition, by fixing the guaranteed income level and thus total budget costs in advance, their plan would allow more accurate predictions of total budget exposure.

This predictability could provide a budget for agricultural support programs determined in advance of program outlays. Such a program would force explicit choices about how much the government (and public) is willing to pay to support farm incomes through transfer payments to farmers (see Gardner, 1981). In essence, the Kramer-McDowell proposal offers the minimum payment necessary to insure farmers income against losses associated with the downside risk of instability in commodities markets. If such a policy were implemented, a remaining problem would be to find a revenue source for these payments in the face of current budget constraints. This problem is addressed below.

(3) Hunger and Inadequate Nutrition

Although financial stress in agriculture is a subject of considerable public interest, less dramatic but equally serious are growing problems of hunger and inadequate nutrition in both rural and urban areas. These problems are in turn linked to the difficult issue of increasing poverty. The argument cited above for a guaranteed minimum income in agriculture is thus part of a broader problem, and agricultural policy reforms are relevant to broader reforms of the welfare system as a whole. A key connection between these efforts are federal food stamp and nutrition programs, which act as income supports for the poor at the same time that they consume surplus agricultural commodities. Hopefully, current efforts at welfare reform will gain from the experience of previous ones, notably the guaranteed income proposals developed by the Moynihan Commission during the Nixon administration, in which direct income transfers were the centerpiece of the program (Moynihan, 1973).

These reforms are important both to agriculture and to consumers of food. In a 1985 Harvard School of Public Health report, a Physician Task Force argued that hunger and inadequate nutrition are increasingly serious public health problems, stemming largely from government's failure to provide an adequate minimum income standard.

> In comparison to other industrialized nations of the world, we do not provide an adequate margin of safety and security. Examination of a variety of indices, from preventive health care to hospital coverage, from food assistance programs to income supports, reveal that economically vulnerable people in the United States do not have the protection provided by many nations which have fewer resources than our own (Physician Task Force, 1985, p. 87).

An important element in this "margin of safety" is the food stamp program of the U.S. Department of Agriculture (USDA). Unfortunately, food

stamps are not granted to poor families on the basis of what it actually costs to eat, but on the basis of a 1975 "thrifty food plan" devised by USDA. Benefits are tied to household size, and are the same from state to state, based on the "thrifty food plan." In 1985, benefits averaged $44.00 per recipient per month, or 49¢ per meal. USDA's National Food Consumption Survey indicates that over 80 percent of all households whose food expenditures equal the thrifty food plan level fail to obtain the recommended daily allowances for nutrients (Physician Task Force, 1985, p. 98).

One important factor lowering the real purchasing power of food stamp recipients is the impact of state sales taxes on food purchases. Food is a wage good, and a higher percentage of wage income is spent on it by the poor than the rich. Hence, food sales taxes fall regressively on those with the highest proportion of their incomes devoted to food purchases. In 1985, the Congressional Budget Office indicated that seventeen states directly taxed food purchases at rates ranging from 3 percent to 6 percent (Table 3). While regressive, the fact that so many states have adopted food excise taxes also suggests that they are politically feasible. The most serious problem with them is that they fall with unequal burden on the poor. Moreover, the fact that some of the poorest states, such as Alabama, Arkansas and Mississippi, also impost the highest food taxes means that consumers there bear an unequal burden of general food price increases. If food stamp benefits were allocated more equitably, food stamp recipients in states paying food excise taxes would receive more federal food stamps.

A second factor affecting the distribution of food stamp benefits concerns eligibility requirements. In 1985, a family was eligible only if the asset value of their car was less than $4,500, and all remaining cash assets

Table 3

State	Sales Tax on Food (%)
Alabama	4.00
Arkansas	4.00
Georgia	3.00
Hawaii	4.00
Idaho	4.00
Kansas	3.00
Mississippi	6.00
Missouri	4.225
New Mexico	3.75
North Carolina	3.00
Oklahoma	3.00
South Carolina	5.00
South Dakota	4.00
Tennessee	5.50
Utah	4.625
Virginia	3.00
Wyoming	3.00

Source: Congressional Budget Office

were less than $1,500. These limits, set in 1977, have lagged behind costs and prices and tend to discourage saving in favor of consumption. At the same time, cuts in both food and other assistance from 1981-85 in Unemployment Insurance, AFDC, Food Stamps and Child Nutrition programs have made consumption choices for basic food needs increasingly burdensome for poor families. As Table 4 shows, AFDC payments, food stamps, and Child Nutrition programs have all been cut over the period. Cuts made in the food stamp program have included delayed inflation adjustments and the elimination of households without elderly or disabled members with incomes over 130 percent of the poverty line.

These measures have been especially discouraging to poor working families whose gross incomes are several thousand dollars over the poverty line, but whose net incomes are well below it. In all, the Physician Task Force (1985, p. 99) estimated that for every 100 people living in poverty in September, 1980, 68 received food stamps. By September, 1984, only 58 percent were receiving food stamps. One of the particular ironies of the last several years is that the food stamp program, designed in part as a demand enhancing measure, has been cut at the same time that direct income transfers to farmers and farm surpluses have grown ever larger.

Policy Instruments

The picture that emerges from the previous analysis provides a striking perspective on the failures of current policy. Burgeoning costs of farm programs accompany highly unstable farm incomes. Huge farm surpluses accumulate as food stamps and other transfer payments to the non-farm poor fall. Poverty increases in both urban and rural areas.

Table 4

Program	1982	1983	1984	1985	Total 1982-85
Unemployment Insurance	-4.0	+10.7	-14.8	-17.6	-6.9
Aid to Families with Dependent Children (AFDC)	-9.9	-13.0	-13.5	-14.0	-12.7
Food Stamps	-12.2	-9.7	-14.2	-14.1	-12.6
Child Nutrition	-24.3	-28.8	-29.0	-28.5	-27.7
Women, Infants and Children Supplemental Program (WIC)	-4.9	+10.5	+7.0	+4.3	+4.4

Source: Congressional Budget Office

This section describes three proposed instruments of reform that aim at the policy targets identified above. First, agricultural income support programs should be based, insofar as possible, on fixed minimum income guarantees linked to a broader program of welfare reform in the non-farm sector. Second, direct income transfers to agriculture should be financed through a national excise tax on retail food sales. Third, compensation to poor consumers should be paid by increased food stamp eligibility to individuals and increased provision of food stamp benefits to states with existing sales taxes on food. Because of the controversial nature of the proposal, each instrument will be investigated separately.

(1) A Fixed Budget for Agricultural Programs

As argued above, the current structure of agricultural programs creates unpredictable budget exposure primarily in the form of deficiency payments. Moreover, these deficiency payments are highly skewed to the largest farmers, because they are paid on the basis of acres and volume of output. The fact that these entitlements go disproportionately to the largest farmers is in itself cause for concern on grounds of equity, but it is the size and unpredictability of these payments that dominate current budget concerns. This budget exposure could be both reduced and predicted if transfer payments to farmers were based on a minimum income floor, such as the proposal advocated by Kramer and McDowell. Because it is the subject of their paper, it will not be investigated in detail here.

By determining the level of such an income floor for several years at a time, yearly marketing decisions by farmers could be taken with the knowledge that a minimum level of income security (and no more) was guaranteed. From the government's perspective, budget exposure would be

more predictable. Of course, simply predicting a large expenditure in the face of current deficits is no solution unless additional revenues can be found, together with incentives to reduce these costs over time.

(2) A National Excise Tax on Retail Food Sales

Suppose that income transfers to farmers and food stamps were financed through a direct sales tax on food. The logic behind such a tax is simple: consumers are direct beneficiaries of farm and food programs and should be made directly aware of their costs. While many view such a tax as unattractive (in part because it is felt that consumers are better off not knowing these costs) most of its objectionable features can be dealt with squarely. These fall into three categories: the size and cost of such a tax; political feasibility; and the regressive and unequal burden of food excise taxes.

The size and cost of a food tax to finance agricultural support program and/or food stamps at the levels of 1973-1986 are shown in Table 5. Personal consumption expenditures from 1973-1986 for food and beverages (excluding alcohol) are shown in the first column. In the second are farm income stabilization costs, including all expenditures for target prices, deficiency payments, crop loans, and other USDA programs other than food stamps and nutrition programs. These are listed separately in column three. Together, these items accounted for an average of 64.4% of the USDA budget over the period. To obtain present values, all figures were discounted by 10-year U.S. Treasury yields shown in column four, giving adjusted figures for personal consumption on food, farm income supports, and food stamps and nutrition assistance. These adjusted figures are shown in columns five, six and seven, with total adjusted spending for income stabilization, food stamps and nutrition shown in column eight.

Table 5

Personal Consumption Expenditures for Food, Farm Program and Food and Nutrition Expenditures, and Estimated Excise Taxes on Food as a Basis of Payment, 1973-1986.

(All figures in $ millions)

Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1973	147,900	4,840	3,641	6.84%	536,383	17,553	13,205	30,758	3.27%	2.46%	5.73%
1974	167,500	1,458	4,433	7.56%	568,575	4,949	15,048	19,997	.87%	2.65%	3.52%
1975	185,200	785	6,643	7.99%	584,471	2,477	20,965	23,442	.42%	3.59%	4.01%
1976	200,500	1,574	7,959	7.61%	585,940	4,600	23,259	27,859	.79%	3.97%	4.75%
1977	217,400	4,485	8,527	7.42%	590,399	12,180	23,157	35,337	2.06%	3.92%	5.99%
1978	241,000	6,588	8,926	8.41%	609,282	16,655	22,566	39,222	2.73%	3.70%	6.44%
1979	272,300	4,850	10,787	9.44%	635,008	11,310	25,155	36,466	1.78%	3.96%	5.74%
1980	301.300	3,459	14,016	11.46%	642,029	7,371	29,866	37,237	1.15%	4.65%	5.80%
1981	326,500	3,993	16,205	13.91%	624,194	7,634	30,980	38,614	1.22%	4.96%	6.19%
1982	343,500	13,289	15,581	13.00%	576,503	22,303	26,150	48,453	3.87%	4.54%	8.40%
1983	365,100	20,628	17,952	11.10%	542,261	30,638	26,663	57,301	5.65%	4.92%	10.57%
1984	390,100	9,945	18,055	12.44%	521,505	13,295	24,137	37,432	2.55%	4.63%	7.18%
1985	410,000	23,751	18,664	10.62%	487,467	28,239	22,190	50,429	5.79%	4.55%	10.35%
1986 est.	431,730	24,017	18,268	7.48%	600,333	24,017	18,268	42,285	4.00%	3.04%	7.04%
Percent Tax for the period 1973-1985									2.39%	4.04%	6.43%

(1) Personal Consumption for food. Includes food purchases for off-premise consumption, food consumed on farms where produced, purchased meals and beverages (excluding alcohol), and food furnished to the military and employees of hospitals
(2) Farm Income Stabilization.
(3) Food Stamps and Nutrition Assistance.
(4) Interest Rates (constant maturities) on 10 Year U.S. Treasury Securities. Yields are adjusted to Constant Maturities by the Treasury Department.
(5) Adjusted Personal Consumption Expenditures for Food.
(6) Adjusted Farm Income Stabilization.
(7) Adjusted Food Stamps and Nutrition Assistance.
(8) Total of Farm Income Stabilization and Food Stamps and Nutrition Assistance
(9) Percent Tax Required to Pay for Farm Income Stabilization.
(10) Percent Tax Required to Pay for Food Stamps and Nutrition Assistance.
(11) Percent Tax Required to Pay for Farm Income Stabilization and Food Stamps and Nutrition Assistance.

What these figures show is that if consumers had paid a direct excise tax on food to support the costs of income stabilization to farmers over the period, it would have required an annual average retail food tax of 2.39 percent, ranging from a low of less than one half of one percent in 1974 to a high of 5.79 percent in 1985 (column nine). Of course, if costs were predictably based on guaranteed income payments, the percentage tax would be fixed in advance, at whatever level the Congress (as informed by consumers) deemed appropriate. It is important to emphasize that if these costs had been borne directly by consumers, rather than hidden in general revenues and expenditures, taxpayers may have been less willing to pay them. If the additional burden of food stamps and nutrition had been added to the price of food, the average cost would have been an annual 4.04 percent retail excise tax on food (column ten). Together, these tax increases (column eleven) would have accounted for an average annual retail food tax of 6.43 percent over the period. In 1985, the average family of four spent approximately $3,830 on food, implying a monthly tax bill of $20.52 if an annual food excise tax rate of 6.43 percent had been charged. It should again be emphasized that these figures are only the averages of past expenditures. If transfers to agriculture were reduced due to consumer unwillingness to pay directly for them, excise taxes would fall accordingly.

Is such a tax politically feasible? Although conventional wisdom says not, I believe that budget pressures and public opinion may make it so. First, a large part of the general public appears willing to accept higher taxes, especially if they are targeted at increased farm program spending. Farm groups, of course, have traditionally emphasized the low cost of food to U.S. consumers in comparison to other Western countries. While it is

often argued that consumers want still lower food prices, and consumer interest groups often lobby for them, there is evidence that the public may be willing to trade off marginally higher food prices for greater stability in the farm sector. If food prices are linked directly to support for farm income supports via an excise tax on retail food sales, consumers may be willing to pay such taxes.

In a February, 1986 CBS News-New York Times poll of 1,174 adults, 55 percent said they would be willing to pay more federal taxes in order to keep farmers in business, while 50 percent felt that the federal government should increase spending on farm income supports. Only 12 percent felt that such spending should be decreased, with 30 percent favoring the same spending levels and 8 percent holding no opinion. Interestingly, support for spending increases was greater in the general population than in a subsample of households dependent on agriculture. In a subsample of the agriculturally-dependent Midwest, only 36 percent favored increased farm program spending, with 14 percent favoring decreases, 45 percent the same levels and 5 percent holding no opinion.

A separate national survey commissioned in December 1985 by Communicating for Agriculture, a farm issues education group, asked specifically whether respondents would be willing to pay a 1 percent tax on their groceries to fund one-year farm income support programs. Over two-thirds, or 68 percent, said yes, 25 percent said no, and 7 percent were undecided. It should be noted that the poll did not test the sensitivity of the response to the size of tax proposed or the length of time over which it would be applied. A 3 percent tax over a longer period, reflecting the true costs of farm income supports, might elicit less enthusiasm. And a 7 per-

cent tax, designed to cover the costs of food stamps and nutrition programs, would probably elicit even less. However, such poll results belie the view that consumer support for higher taxes (and food prices) is non-existent, especially if committed to farm programs and deficit reduction.

A second reason that excise taxes on food appear politically feasible is more straightforward: seventeen states have passed them, including some of the poorest states in the nation. At least on the surface, there thus seems reason to question whether such taxes are politically infeasible. The principal difficulty is that those states that already pay such taxes, and especially the poor within them, would be especially burdened by a national excise tax on food. The regressivity of such taxes is the third and most compelling objection to their political feasibility. Because it is the most compelling, it merits a separate instrument of policy.

(3) Increasing Food Stamp Eligibility and Welfare Reform

Excise taxes on food are regressive: as a percentage of income, food expenditures weigh more heavily on the poor. This argument applies not only to individuals, but to states as well. Hence, in poor states with existing sales taxes on food, added federal taxes will be more regressive at the margin than in states without them. For reasons of equity, compensation for the regressive impact of such taxes on the poor can therefore be supported on both on individual and state-by-state basis. Since the tax proposed above is on retail food sales, it seems natural that compensation be paid to individuals and states in the form of expanded eligibility for food stamps. For individuals, expanded eligibility could result from raising gross income eligibility ceilings, establishing net (rather than gross) income requirements, changing asset ownership limitations, increasing allowances under the

"thrifty food plan," or some combination of these measures. For states with existing food sales taxes, additional food stamps could be made available to state welfare programs based on the percent state tax. The advantages of such a compensation scheme are several.[3]

First, as noted above, hunger and inadequate nutrition are increasing problems and would deserve attention whether or not the broader program of reforms outlined above was adopted. Expanded food stamp eligibility, however, would not be costless. If these costs were paid directly by consumers, they could be added to the sales tax itself. For this reason, food stamp and nutrition costs are explicitly included in the calculation of excise taxes above, although they need not be financed in this manner. A second and offsetting consideration is that expanded food stamp and nutrition program eligibility would increase consumer demand for surplus agricultural surpluses. With current costs just to store these surpluses in government warehouses running at approximately $200 million per year, such savings would not be trivial. Indeed, expansion of food stamp and nutrition programs would reduce the pressure for a second domestic PIK program, as well as additional export-PIK measures widely blamed for lowering world market prices. When the costs of the 1983 PIK program to the farm sector are reviewed, demand-enhancing measures become relatively attractive alternatives (see Runge (ed.), 1986, pp. 3-56). Third, because food stamps are

---

[3]It could be argued that such a program would encourage states to raise additional food taxes, although the political costs of doing so would countervail much of this pressure. In any case, setting compensation in relation to state food taxes as of 1986 would eliminate this temptation. The effect of such transfers would be to reward those states for enacting measures designed to tax consumption, rather than savings, a goal with much to commend it in macroeconomic terms.

a form of currency, they are a relatively efficient basis for transferring income to consumers, who are then free to purchase the market basket of goods most consistent with their tastes and preferences. It is well-known that the USDA "thrifty food plan" diet, which depends in part on the purchase and preparation of staple items rather than more expensive processed foods, is inconsistent with the demands on time of many of the nation's poor. Fourth, from the public's perspective expanded food-stamp and nutrition availability would require no new welfare bureaucracy. The existing welfare apparatus would be largely sufficient, since only rules of eligibility would be altered (although an increased number of recipients might entail some additional federal personnel). Finally, such a program could be made part of a general reconsideration of family assistance as proposed in the early 1970's by the Moynihan Commission, in which income floors are set by the government in both the agricultural and non-agricultural sector, reducing both the complexity and disincentives of current welfare programs (Moynihan, 1973).

Conclusion

A three-part set of reforms has been proposed: (1) a fixed budget for agricultural programs based on a minimum income floor in the agricultural (and possibly the non-agricultural) sector; (2) a national excise tax on retail food sales; (3) increasing food stamp eligibility and welfare reform. These reforms are directed at three targets: (1) budget exposure in agricultural program spending; (2) income instability in the agricultural sector; (3) hunger and inadequate nutrition.

Naturally, the complexity of such changes is greater than simply matching these targest and instruments. However, current budget imbalances,

combined with a crisis in agricultural program spending and growing evidence of hunger and inadequate nutrition, demand both attention ann innovation. While the innovations above would not be costless, the incentives created are not in the direction of greater government spending. First, by linking agricultural program spending directly to food prices, consumers would be made aware of the costs of these transfers. Whether they would be willing to pay them is an open question, most appropriately determined by the Congress as informed by consumer opinion. Within reason, poll data suggests that consumers would be willing to pay for income security in the farm sector. Second, the proposals are aimed directly at reductions in the budget exposure of agricultural programs, as well as the unpredictability of these expenditures. On both grounds, they are fiscally prudent and essentially conservative. Finally, although expanded welfare assistance is often associated with "big-government," expanded food stamp and nutrition programs may actually be more efficient and less costly in the face of food surpluses than alternatives such as Payments-in-Kind. When based on a guaranteed income floor, such transfers also are an appealing alternative to the current system of welfare.

In all, these proposals suggest the close linkage between agricultural programs, budget constraints, and income levels determining human health and nutrition. A new structure for U.S. food and agricultural policy must recognize these connections to be economically rational and politically feasible.

References

Bailey, K.W., V.P. Byron and J.P. Houck, "The Food Security Act of 1985: Implications for Minnesota's Farm Economy," Department of Agricultural and Applied Economics, University of Minnesota, Staff Paper P86-11, March, 1986.

CBS-New York Times Poll, "The Farm Crisis," February, 1986, Released 2/24/86, CBS News, New York, N.Y., 1986.

Cochrane, W.W., "The Need to Rethink Agricultural Policy in General and to Perform Some Radical Surgery on Commodity Programs in Particular," American Journal of Agricultural Economics 67:5 (December, 1985): 1002-1009.

Communicating for Agriculture, "Consumer Opinion Study," December, 1985, prepared by Rockwood Research Corporation, St. Paul, MN, 1985.

Gardner, B.L., The Governing of Agriculture, Lawrence, KS, Regents Press of Kansas, 1981.

Moynihan, D.P., The Politics of A Guaranteed Income: The Nixon Administration and the Family Assistance Plan, New York, Random House, 1973.

Myers, R.J., "Economic Inefficiency Under Uncertainty and the Effects of Ideal Risk Markets in U.S. Agriculture," Ph.D. Thesis, Agricultural and Applied Economics, University of Minnesota, 1986.

Myers, R.J. and C.F. Runge, "The Relative Contribution of Supply and Demand to Instability in the U.S. Corn Market," North Central Journal of Agricultural Economics 7:1 9January, 1985): 70-78.

Physicians Task Force Report, Harvard University School of Public Health, Hunger in America, Boston, MA, 1985.

Runge, C.F. (ed.), The Future of the North American Granary: Politics, Economics and Resource Constraints in North American Agriculture, Ames, Iowa, Iowa State University Press, 1986.