Counter-Cyclical Whole Farm Safety Nets

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Background

Since the 1920s, the federal government has used an array of farm programs to provide a "safety net" for American agriculture. Farm programs have used price supports, disaster payments, income supports, direct payments, and supply management to provide a safety net for particular markets and producers. With the exception of land idling programs, the programs have provided incentives for production and the diversification of production throughout the continental United States.

While the FAIR Act of 1996 has been generously applauded for allowing producers planting flexibility, maintaining export competitiveness through marketing loan programs, and maintaining full production, the Act has been criticized for its lack of sufficient counter-cyclical safety net. Although subsidized crop insurance programs and marketing loan provisions are counter-cyclical in nature, the ad hoc passage of emergency relief in each of the last three years 1998-2000 and the pending assistance in 2001 suggests that these programs have not provided sufficient support to program crop agriculture. The counter-cyclical safety net issue, whole farm safety net proposal is one alternative being studied.

Components of a Whole Farm Safety Net Program

A whole farm safety net program for agriculture must first define the income measure that is guaranteed. Should society guarantee net income, total market receipts, total revenue, production costs, price, or yield? Insuring price or yield has been commonly considered a safety net tool, however, neither necessarily provides a whole farm safety net. Guaranteeing net income or production costs may generate a desired outcome, but these risk variables are less practical due to the complications associated with managerial control of the variables.

Generally, proposals for a whole farm safety net focus on protecting either total market receipts or total revenue. Targets for total revenue, defined as total market receipts plus government payments (AMTA, LDP, and ad hoc emergency assistance payments), protect farmers against market and production risk as well as farm policy risk. Richardson, Smith, and Knutson, however, argue that farm policy risk (driven by government expenditures) in the historical data may need to be excluded because they may not be present in the future periods for which a safety net is designed to protect. If this is the case, then total market receipts are left as the variable on which to build the whole farm safety net.

An advantage of using total market receipts is that the payments, by definition, are counter-cyclical. Payments would be available when market receipts are low, and would not be made when receipts are normal or high. This counter-cyclical provision should address the public concern that farmers receive payments when their incomes are high and/or when "no adverse event has warranted the payment." A disadvantage, however, is that the defined benefit of a whole farm safety net increases the risk associated with government costs relative to defined expenditure programs such as the current AMTA payments.

A whole farm safety net program would presumably cover all agricultural enterprises including livestock. Past programs have been commodity specific, and have excluded other commodities. What commodities to include will be a significant issue Congress will have to address prior to the establishment of a whole farm safety net program.

Another significant component of a whole farm safety net program is the method used to determine total market receipts for each enterprise included on the farm. If the program is administered at the farm level, using prices received by farmers introduces two potential problems. The incentive for efficient marketing is diminished and validating individual receipts may be problematic. Market receipts, therefore, could be calculated using a price derived at the national level — for example, a season average price.

The production used in calculating market receipts will also be subject to debate. Payment rates may be based on a national, regional, county, or individual production level. Either extreme of the range of yield options may be problematic. On the individual level, enforcement and tracking is an issue. Although such a program provides producers with the greatest risk protection, if yields are calculated on a national level, regions that are adversely impacted may be denied benefits. In other cases, payments may be made in areas that experienced higher than normal production (Hart and Babcock).

The last major component in designing a whole farm safety net program is the cut off for determining when producers are eligible for a payment. Should payments be made if total market receipts fall below 100, 90, or 80 percent of historical average receipts?

The trigger percentage will determine the cost of the program to the government and the amount of safety in the safety net program.

Alternatives and Consequences

Five whole farm safety net programs are introduced in the following section, starting with the broadest definition of insured income.

Counter-Cyclical Payment (CCP)

Two CCP options were discussed by the Commission on 21st Century Production Agriculture. The CCP options are designed to bring total gross revenue for the eight major crops up to a specified target level. The eight program crops are: corn, sorghum, barley, oats, wheat, upland cotton, rice and soybeans. Target revenue for the CCP is the sum of market receipts, loan deficiency payments (LDPs), contract payments (AMTAs), and market loss assistance payments (MLAs) for all eight commodities. Counter-cyclical payments (CCP) would be made if total actual revenue for the 8 crops falls below their 1995-1999 average. The total CCP equals the difference between the 1995-1999 average targeted revenue and the actual revenue. The total CCP is distributed among the 8 crops based on the current allocation formula for AMTA payments under the 1996 farm bill. A second option to the CCP program calls for using a 5 year moving average of total gross revenue rather than a fixed period to determine the target revenue and payments.

A sector level analysis by FAPRI revealed that CCPs average $5.3 billion in 2003, but decline to $550 million by 2009 when a fixed period is used to determine the cut-off for targeted revenue. A moving average for targeted revenue results in average CCPs of $2.8 billion in 2003, and less than $300 million by 2009.

The CCP programs trigger payments when total revenue over the eight crops falls below the

guaranteed average revenue. Thus, if an individual farmer suffers a loss due to localized market or weather adversities, he will not receive a payment unless total revenue for the eight crops nationally falls below the threshold. Conversely, if the national revenue for the crops falls below the trigger, payments are made to all farmers whether they suffered an individual loss or not. These factors appear to be significant for producers of crops whose prices are not highly correlated to national averages. Also, producers outside the major production areas of the country may find themselves unprotected in times of adversity, or receiving a windfall when revenues are high.

The CCP program is simple, easy to implement, and reduces the opportunity for moral hazard. The program would reduce risk around total revenue for crop agriculture in the U.S., but it will do little to protect an individual crop farmer's net cash income. The CCP program provides no safety net for enterprises outside the eight major program crops.

Modified Supplemental Income Payment (SIP)

A modified supplemental income payment proposal has surfaced as a whole farm revenue assurance program. SIP would trigger payments based on total revenue for individual crops. Total national market receipts for each program crop is the target variable under the SIP program. The trigger for payments to a particular crop occurs when revenue falls below the specified percentage of average total market receipts over the 1995-1999 period for the particular crop.

Target receipts for wheat, for example, are treated differently from target receipts for cotton or for other crops. Therefore, payments could be made to one crop when receipts are low, even if receipts for other crops are high or the CCP may not have triggered a payment.

The total payment made for a short fall in receipts equals the difference in actual national receipts for the crop. The payment rate equals the total payment divided by harvested acres in the current year. Producers are then paid on a harvested acre basis. An equivalent per acre payment rate across the country could cause typically low yielding

regions to be over compensated relative to regions with higher average yields. Producers experiencing low yields in a particular year would be relatively under compensated or not compensated at all if producers in other areas did not suffer low yields. This type of result has caused some to call for a regionalized total receipts trigger, and for expressing the payment rate on a yield unit basis.

Analyses by FAPRI of the SIP program show that setting each trigger at 93 percent of the 1995-1999 average receipts would result in a $3 billion per year SIP payment on average. The cost of the program would average $6 billion per year if the triggers were set at 103 percent of the 1995-1999 average receipts (Adams and Richardson). For this level of expenditure, it was assumed the benefits were provided to only the eight major program crops.

Safety Net for Farm Households (SNFH)

A recent USDA study analyzes three needs-based SNFHs to maintain an income standard for farmer households relative to historical values for:

- regional median household income,
- 185 percent of the poverty line, and
- average adjusted household expenditures (Gundersen, et. al.).

The SNFH would provide a payment if net income for the household fell below the targeted income level. In 1995, median U.S. household income was $35,000. If a SNFH program had been in place in 1997, the total payments needed to achieve regional median household equity would have cost $12.58 billion. Projecting this program over the 1999-2003 period, using the USDA Baseline, the government would spend an average of $16.55 billion per year. These SNFH payments would be divided as follows:

- 33.4 percent to limited resource farms,
- 20.7 percent to residential lifestyle farms,
- 31.9 percent to low sales farms,
- 10.6 percent to high sales farms, and
- 3.2 percent to large farms.

If a SNFH program with a trigger equal to 185 percent of the poverty line was in place for the 1999-2003 period, average annual payments are projected at $49.05 billion. About 32 percent of the payments would go to "low sales farms," 11 percent would go to "high sales farms," and 3.5 percent to "large family farms."

The distribution of safety net payments to support farm household incomes under these SNFA programs stands in contrast to the actual distribution of farm program payments for AMTA and MLA in 1999:

- 1 percent to limited resource farms,
- 3 percent to retirement farms,
- 9 percent to residential lifestyle farms,
- 15 percent to farming low sales farms,
- 25 percent to farming high sales farms,
- 21 percent to large family farms,
- 22 percent to very large family farms, and
- 4 percent to agribusinesses.

Whole Farm Revenue Program (WFRP)

Several alternative safety net options that insure receipts at the farm level have been introduced. One such option (SAFE) would guarantee net income based on a percent of net income as defined on IRS Form 1040, or its equivalent. Procedures would have to be implemented to deal with structural adjustments at the farm level as well as the difficulties associated with the use of cash accounting practices by farmers.

An alternative WFRP would protect a farm's market receipts calculated as: the product of current years planted acres and an Olympic moving average of the most recent five years of certified yields and national season average prices. By using the current year's planted acres, it allows full planting flexibility by not penalizing (or overstating) protected receipts for the historical crop mix. National season average prices would be used to calculate the historical value of production and to value the current year's actual production, thus maintaining a farmer's incentive to market the crop in a professional manner.

Payments would be made to individual farmers if the total value of production falls below a specified percent of their historical average value of

production. Payments could thus be triggered by low yields and/or low national prices. Various trigger levels of this WFRP have been analyzed, and 90 percent of a historical moving average appeared to provide reasonable protection of net farm income for feed grain, cotton, and wheat farms (Richardson, Smith, and Knutson). The concept is applicable to livestock farms, although higher cut-off percentages are required to provide comparable levels of income protection for dairy and hog farms.

Because the WFRP is implemented at the farm level, it avoids the problem of not paying for regional disasters and inequitable payment rates across regions due to yield differences. Basing insured receipts on national prices does not avoid the problem of regional price differentials due to grade and location.

Production Cost Coverage

The National Association of State Departments of Agriculture (NASDA) and the Farm Credit System proposed a safety net option that would insure the cost of production for major commodities. The option has been proposed as an insurance product to be administered by the USDA-Risk Management Agency. To the extent that a PCC would indirectly support farm income, it is included here.

A major criticism with a PCC is that producers can, through management, affect their costs of production and, thus, moral hazard would make it very costly to insure. Establishing a national gross margin, and setting the triggers based on national average cost of production would insure that half of the producers (low cost producers) receive no benefit from the program, while the high cost producers receive benefits every year.

Other Programs

The USDA Risk Management Agency manages several programs that provide safety net support to farm incomes. For example, CAT, CRC, IP, and MPCI are all established insurance programs that

provide income support. These program options are presented in a separate paper.

Also covered in another paper are the FARRM accounts. These accounts are counter-cyclical in that farmers make deposits when incomes are high and withdraw funds when incomes are low.

Target price/deficiency payment programs are considered to be a counter-cyclical program. Deficiency payments are zero when prices exceed the target price, and then grow as prices fall below the target. Target price programs are discussed more fully in a separate paper.

Summary

While the FAIR Act is generally accepted, safety net concerns have arisen. This paper discussed several counter-cyclical derivations that have been suggested as means of providing production agriculture with a sufficient safety net. The litmus test for all the programs will likely be the ability to maintain a target level of farm income in adverse times, while protecting the popular elements of the FAIR Act and complying with WTO agreements.

References and Suggested Readings

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