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Time for a New Farmer-Owned Reserve?

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Briefing Paper 00-BP 31

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Chad Hart is an associate scientist and Bruce A. Babcock is director, Center for Agricultural and Rural Development, Iowa State University.

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TIME FOR A NEW FARMER-OWNED RESERVE?

The current farm program contains a marketing loan program that offers grain farmers two options at harvest time to counter low market prices. Farmers can either take a loan deficiency payment (LDP) on harvested production, or farmers can place production “under loan.” The LDP pays the farmer the difference between the loan rate and a government-calculated price (the posted county price), which changes daily. Once the LDP has been taken the farmer can either market the crop or store it, but all further government assistance is ended. A farmer who puts the crop under loan stores the crop and receives a loan from the government. If the market price rises above the loan rate, the farmer can pay off the loan, market the crop, and pocket the difference. If the price does not rise above the loan rate, the farmer can pay off the loan at the posted county price, which is equivalent to receiving an LDP. The farmer must repay the loan within nine months or choose to forfeit the stored crop to the government.

The current marketing-loan program is designed to ensure that government responsibility for a crop ends before the next crop is harvested. Congress largely removed the government from grain stock management to avoid a large buildup of stocks during times of weak prices. Private stockholding may increase during times of weak prices, but government stockholding may not.

Because of the low harvest prices over the last three years, several congressmen and agricultural advisors are calling for increased government involvement in grain stock management in the belief that the government should remove grain from the market when prices are low and return it to the market when prices recover. Proposals for government involvement run from a simple extension of the loan period to the establishment of a new Farmer-Owned Reserve (FOR) program, whereby the government subsidizes

long-term storage of grain. To gain insight into whether government involvement should increase, this briefing paper looks back at how the FOR operated and discusses the lessons learned from its operation.

The History of the Farmer-Owned Reserve

The original FOR was a loan program designed to hold production out of commodity markets during times of low prices while still leaving the production under producer control. The program began in 1977 and was terminated in 1996 with the passage of the Federal Agriculture Improvement and Reform (FAIR) Act. The policy objectives of the FOR were to

1. assure that stocks of grain would be available in times of low production, and
2. reduce grain price variability.

A reduction in variability means stronger prices during times of high production and weaker prices in short-crop years.

To participate in the FOR, producers were required to enter into a three-year reserve agreement with the government. Under the agreement, producers received a nonrecourse commodity loan with the possibility of deferred interest and storage cost reimbursement in exchange for some restrictions on the timing of grain removal from the reserve. The FOR program was available to producers of wheat, corn, sorghum, barley, oats, and rice.

The original FOR was structured around three prices: the loan rate, release price, and call price. In most years, the FOR loan rate was the same as the regular commodity loan rate. Grain in the FOR could not be sold without penalty unless the loan was repaid and the average market price for the commodity exceeded the release price. The call price set the average market price level at which the United States Department of Agriculture (USDA) could require the repayment of loans. After 1981, there was no set call price but the USDA had the discretion to force repayment of loans under emergency conditions. With the 1990 farm bill, the release price was also eliminated so producers could move grain out of the FOR without penalty.

When market prices exceeded the release price, the FOR was in release status and remained so until the month after the national average market price fell below the release price. While the FOR was in release status, producers in

the FOR were charged interest on the loans and storage payments were discontinued. However, producers were allowed to repay their loans and interest charges and remove grain from the FOR without penalty.

The FOR would be in call status when the national average market price exceeded the call price for five consecutive days. The USDA could also put the FOR in call status when “the secretary determined that emergency conditions exist which require that such commodities must be made available in the market to meet urgent domestic and international needs.” If the FOR was put in call status, producers would be required to repay their loans and interest charges or forfeit their grain as payment.

Storage payments were made to producers in the FOR when the average market price did not exceed the release price. For corn and wheat producers, the annual payments were \$0.25/bushel from 1977 to 1979. In 1980, the storage payments increased to \$0.265/bushel for both crops. The addition (or withdrawal) of storage payments was used to induce participation in (or withdrawal from) the FOR.

The loans made under the FOR could carry interest charges. Typically, interest was charged only on the first year of the loan. Interest charges also were waived for special instances such as the 1980 grain embargo of the Soviet Union. The USDA had the authority to charge interest over the entire length of the loan and to change interest rates in any year, if necessary.

The penalties for removal of grain from the FOR when prices were not above the release price included the repayment of the loan and interest, return of unearned storage payments, and a charge equal to one-half of the product of the annual loan interest rate and the original loan amount. The call and release price structure combined with the penalties for early withdrawal served to control the flow of grain on the market.

The 1990 farm bill contained the last major adjustments to the FOR. It required that producers enroll in the regular marketing loan program for the full nine months before they could obtain a FOR loan. Interest was charged when the national average market price rose above 105 percent of the loan rate and would continue to be charged for 90 days after the last day the market price equaled or exceeded this level. When the average market price exceeded 95 percent of the loan rate, storage payments were stopped and were not resumed until 90 days after the price fell below 95 percent of the loan rate.

Figures 1 and 2 show the three FOR prices and the annual average farm price for corn and wheat during the FOR's existence. The annual average corn price exceeded the release price only once, in 1980. In 1983, the combination of the payment-in-kind (PIK) program and a drought drove average farm prices nearly to the release price. The annual average corn price never exceeded the call price. However, market prices did exceed the call price on several occasions. Average farm prices fell below the loan rate in 1981, 1982, 1985, and 1986. For wheat, the average farm

price hovered around the release price in 1978–80 and 1987–88. But in the intervening years, farm prices remained around the loan rate.

The amount of grain stored under the FOR varied dramatically over the period. Figure 3 shows the annual FOR stocks for corn and wheat. For corn, the FOR stock levels went through several peaks and valleys. In 1979, the FOR held 670 million bushels of corn. By 1980, these stocks had disappeared. Over the next two years, FOR corn stocks grew to 1.89 billion bushels. FOR corn stocks then fell to 389 million bushels in 1984, only to rise again to 1.50 billion bushels in 1986. By 1991, the FOR corn stocks were again depleted.

The swings in the FOR wheat stocks were not quite as dramatic. From 1979 to 1982, FOR wheat stocks nearly quadrupled in size, from 260 million bushels to 1.06 billion bushels. In 1983, stocks fell to 600 million bushels and remained near that level until 1986. After 1986, FOR stocks gradually declined to zero. The surge in both corn and wheat FOR stocks from 1980 to 1982 can be attributed to several factors, including the higher loan rates for FOR loans, the waiver of interest charges during the 1980 grain embargo, and the increase in the number of eligible producers over the period.

Lessons Learned from the FOR and Other Commodity Programs

Lesson 1. Government stocks substitute for private stocks.

Advocates of the FOR note that it was a successful program that accomplished its primary objectives of

price stabilization because stocks increased in times of surplus production and decreased in times of shortages. Most studies of the FOR found that while the FOR did indeed increase stocks, the increase was less than that suggested by a simple examination of stock levels as the FOR decreased private stock holding. That is, if the FOR had never existed, private stocks would have built up before 1983 and 1988, partially offsetting the price impact of these short crop years.

That the private sector would have increased stocks before the 1983 and 1988 droughts is indicated by the large increase in corn and wheat stocks since 1996. As discussed in the introduction, the government is no longer a large player in the stock holding business so most of the current grain stocks are held on farms and by commercial buyers. As shown in Figure 4, stock-to-use ratios have grown substantially since 1996 for corn and wheat. The ratios do not approach the record high levels of 1987, but nobody is advocating a return to 1987 stock levels. Before we return to government-subsidized storage, we need to determine that the amount of private storage is inadequate.

Lesson 2. It is difficult to release grain when prices are high.

When prices are low, it is easy to implement a program that increases price by taking grain off the market. It is much more difficult to release grain when prices are high. Grain farmers who have a crop to sell when the price is high object to a government program that lowers the price they receive. But running a price stabilization program rather than a price enhancement program

means lowering the price when the price is high.

The solution to this political problem is to design program rules that automatically release grain when prices rise. The FOR had rules that stopped subsidies when prices rose and required release of grain when prices were above the call prices. But even automatic rules are subject to discretion. For example, loan rates should have declined in 2000 because of an automatic rule that tied loan rates to market prices. The rule was passed because Congress did not want the government price to unduly influence planting decisions. But in February, the USDA announced that they would not allow loan rates to drop. Thus, we have record soybean acreage and a near-record corn crop in 2000.

Because of political pressures, what may start as a price stabilization program can be expected to turn into a price enhancement program. Experience shows that increasing government involvement in grain storage will lead to stock levels that have often been described as “burdensome.” Large stocks are a burden to producers because their presence puts a cap on price rallies in the market. And taxpayers are burdened by large stocks because they have to pay to maintain them.

Lesson 3. It is difficult to run a multi-crop stabilization policy over time.

Advocates of a return to government-subsidized storage implicitly believe that the USDA economists are better able to guide commodity markets than the private sector. A successful stabilization program with an objective of stabilizing prices at long-run equilibrium levels

must first determine the target price levels. If targeted price levels are set too low, then the government program will be irrelevant because market prices will be above the intervention price. A more likely scenario is that targeted price levels will be set too high, which would cause stocks to accumulate dramatically over time.

This problem of setting target prices is made more difficult when several crops are involved. Producers will tend to plant the crop with the highest relative price. The relatively high soybean loan rate is one cause for the dramatic increase in soybean acreage and a decline in wheat acreage.

Another difficulty is that over time, the relative cost of producing crops will change because technology has differential effects on crops. For example, the cost of producing soybeans relative to corn in nontraditional soybean producing areas has declined as new weed control technologies have emerged and as plant breeders have tailored varieties for new growing regions. This decline in relative production cost is another reason why soybean acreage has increased recently. A well-run stabilization program would need to reflect this decrease in production costs when setting target prices, so that the program would not influence farmers' planting decisions.

Concluding Remarks

Calls for a return to government-subsidized storage are understandable in these times of low grain prices. After all, increased storage would increase market prices, at least in the short run. But if the objective of subsidized storage is price stability and not short-run price enhancement, then advocates need to examine how past storage programs have been run, and determine whether the current policy situation would actually be improved by a return to government-sponsored storage.

Advocates of price stability need to determine that first, current stockholding activities by the private sector are inadequate. Second, they need to come up with a program design that is immune from political meddling so that the stabilization program does not turn into a price-enhancement program. Third, they need to determine methods for setting and updating program price levels that do not affect planting allocations.

Ultimately, Congress will have to decide whether government-subsidized storage is in the nation's best interest. From a public policy perspective, the relevant question is whether a return to government storage would lead to a better outcome for the United States than the current program that relies primarily on private storage. Only if the answer is a clear yes, should such a program be enacted.

Figure 1. Annual Corn Prices

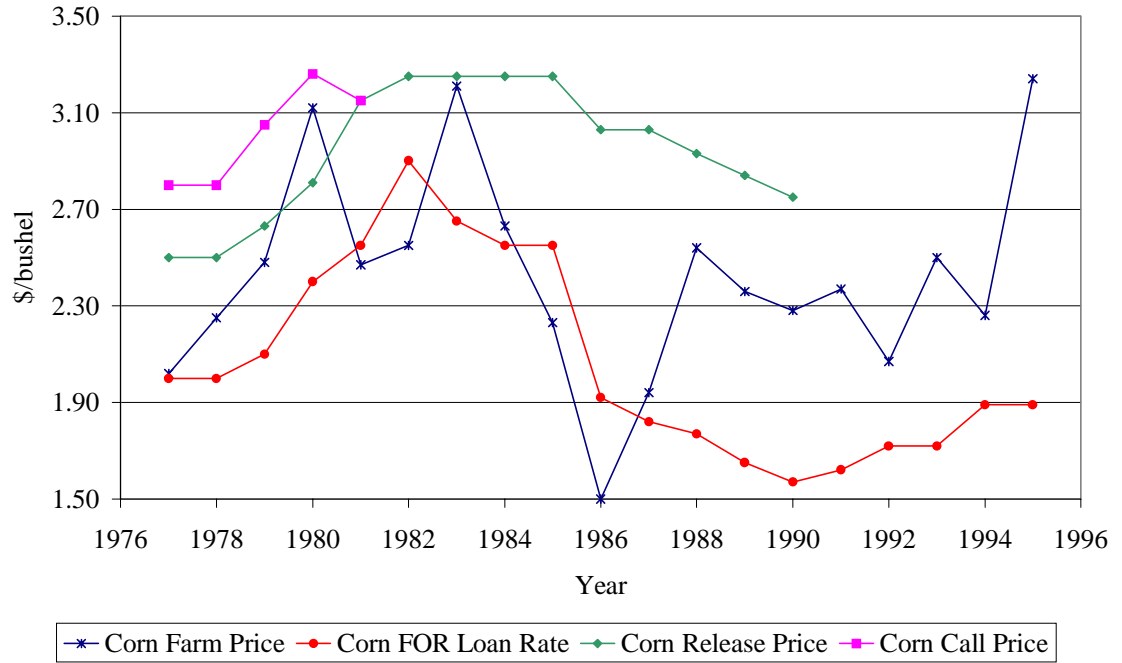


Figure 2. Annual Wheat Prices

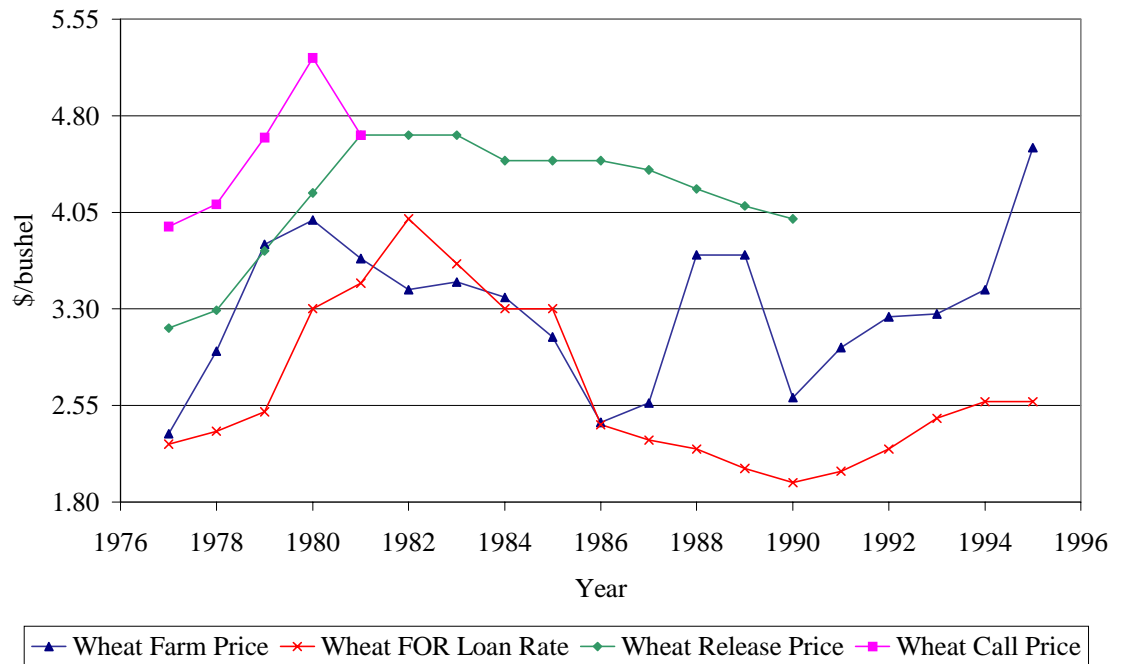
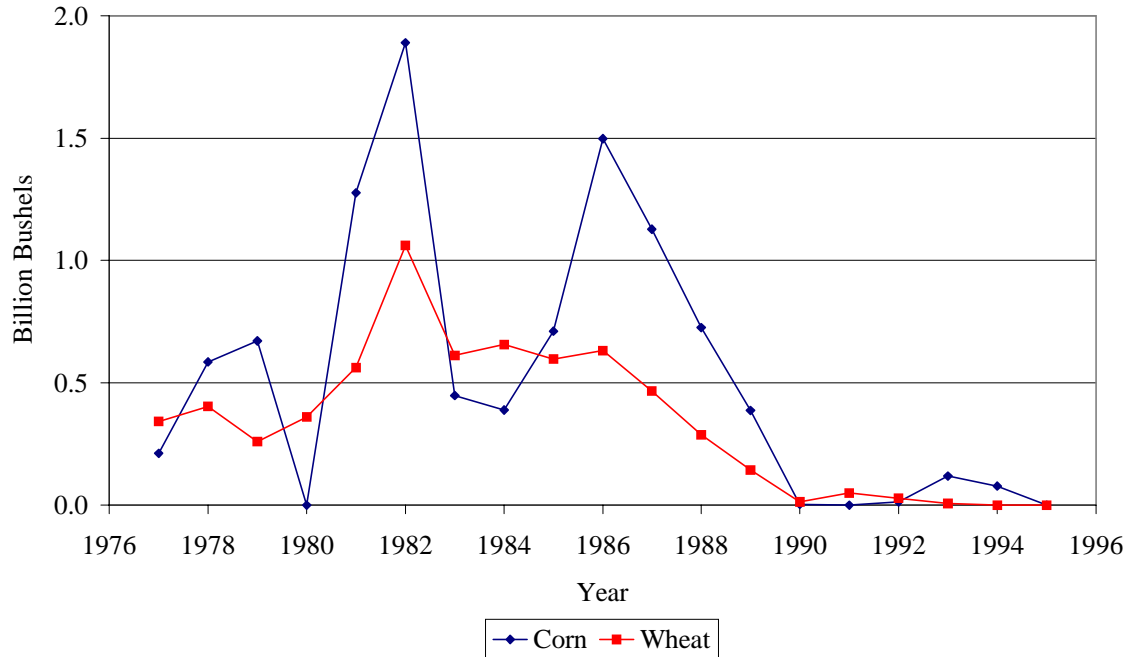
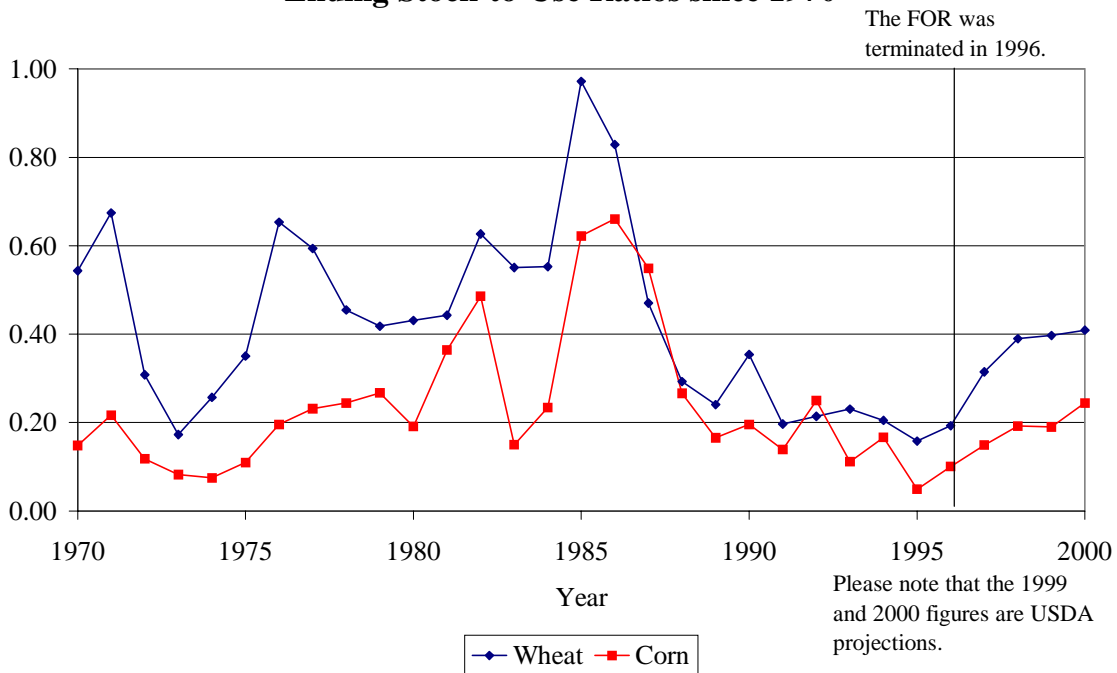


Figure 3. Farmer-Owned Reserve Stocks



**Figure 4. Is Private Storage Inadequate?
Ending Stock-to-Use Ratios since 1970**



Background Resources

“Conrad Introduces the Farmer Owned Reserve Restoration Act.”

<http://www.senate.gov/~conrad/releases/99/04/1999426920.html>.

Viewed July 24, 2000.

The Farmer-Owned Reserve after Eight Years: A Summary of Research Findings and Implications. William H. Meyers, editor. Iowa State University, Agriculture and Home Economics Experiment Station, Ames, Iowa. Research Bulletin 598. July 1988.

United States Department of Agriculture, Economic Research Service. “Farmer-Owned Reserve: Old Name, New Program.” *Farmline*. June 1991.

United States Department of Agriculture, Economic Research Service. “1996 FAIR Act Frames Farm Policy For 7 Years.” *Agricultural Outlook Supplement*. April 1996.

United States Department of Agriculture, World Agricultural Outlook Board. *World Agricultural Supply and Demand Estimates*. August 2000.

<http://usda.mannlib.cornell.edu/reports/waobr/wasde-bb/2000/wasde365.pdf>.

Viewed August 14, 2000.

Wiesemeyer, Jim. “8/08 -- U.S. Farm Policy: Seeking Solutions...”

<http://www.agweb.com/analysis/analysis.cfm?id=9844&service=22>.

Viewed August 8, 2000.

“104th Congress, Second Session, Vote No. 12.”

<http://www.senate.gov/~rpc/rva/1042/104212.htm>. Viewed July 24, 2000.

“7 USC Sec. 1445e(01/16/96).” World Wide Web document.

<http://envirotext.eh.doe.gov/data/uscode/7/1445e.html>. Viewed July 24, 2000.