

The new grain reserve programs

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Large stocks of grain are nothing new in this country. During the fifties, stocks grew to particularly burdensome levels as a result of government programs that kept grain prices above market clearing levels without facing up to the controls needed to rein in the over-production capacity of U.S. agriculture. These policy shortcomings were corrected in the sixties. Yet grain stocks were still considered excessive in the early seventies.

Despite this backdrop, the concept of a grain reserve evolved rapidly during the first half of the seventies. As surpluses turned to shortages, the value of a buffer stock of grain attracted increasing attention in both international and domestic policy forums. From an international perspective, the idea of a grain reserve is still pretty much just a concept. Most major nations have endorsed the idea but they differ on the size, funding, and management of an international reserve.

On the domestic side, the concept of a grain reserve has been brought to fruition with the rebuilding of stocks and the enactment of the Food and Agricultural Act of 1977. That act marked the first in the long history of agricultural legislation to mandate the accumulation of a buffer stock of grain. It authorized a domestic grain reserve that shifts the emphasis from publicly held to privately held stocks. The act also encourages the formulation of an international Emergency Wheat Reserve that could be fully operational next year.

Historical perspective

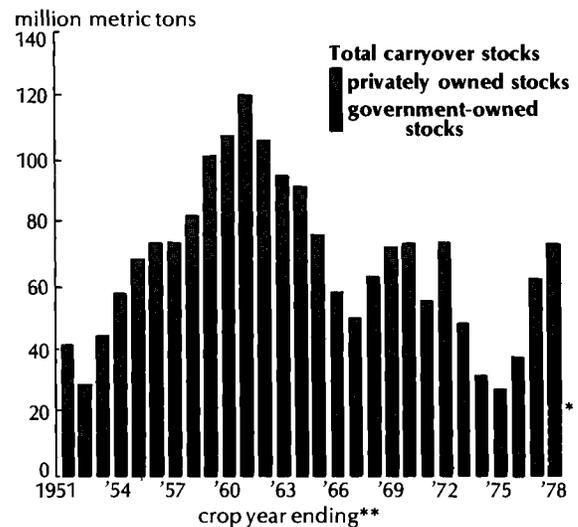
There is no exact definition of buffer stocks. Many consider the term synonymous with carryover stocks, meaning the grain on hand at the end of a crop marketing year. Others, however, view buffer stocks as that part of the carryover which exceeds the amount private interests willingly hold.

In the past, depending on the size of the carryover and the mechanics of government programs, the carryover was held entirely by private interests, such as farmers, processors, and manufacturers, or jointly with the government. The amount held by the government usually represented the widely fluctuating difference between total carryover and the more constant level held by private interests.

From 1950 to 1976, privately held carryover stocks varied from 19 million to 55 million metric tons and averaged 35 million.¹ This was a fairly narrow range compared with government-held stocks, which fluctuated from almost none to as much as 85 million metric tons and averaged 32 million.

¹A metric ton weighs 2,204.6 pounds and is roughly equivalent to 36.7 bushels of wheat or 39.4 bushels of corn.

The rebuilding in carryover grain stocks reflects a shift from publicly held to privately held stocks



*Nearly 20 million metric tons of the privately held stocks were in the domestic grain reserve program.

**Year-ending September 30 for corn and sorghum; May 31 for oats, barley, wheat, and rye, and July 31 for rice.

Stocks owned by the government were accumulated mostly through the Commodity Credit Corporation loan program. For many years, farmers have been able to place their grain under loan with the CCC. This has been one way for farmers to raise working capital without selling crops in markets glutted just after harvest.

The basic mechanics of CCC loan programs are the same today as three decades ago. A farmer that acquires a loan agrees to store the grain, holding it off the market until the loan is repaid or matures. The farmer can fulfill the loan obligation two ways. He can repay the loan plus interest anytime up to maturity and keep unencumbered control of the grain. Or, because there is no recourse to the borrower, he can default at maturity, keeping the proceeds of the loan and turning the grain over to the CCC. The choice he makes depends on the market price of grain and the loan rate (the amount per bushel extended by the CCC). If prices go enough above the loan rate to cover the interest charge, the farmer is inclined to sell the grain, paying off the loan and pocketing the difference. If prices do not rise that much, the tendency is to default, giving up control of the grain.

Loan defaults led to a huge accumulation of government stocks in the late fifties and early sixties. The loan rate for wheat ranged from \$1.82 to \$2.24 in the fifties. The range for corn, with only minor exceptions, was \$1.12 to \$1.62. Market prices nearly always averaged less than the loan rates, resulting in predictable defaulting on CCC loans. This, coupled with the absence of effective production controls, led to a record 85 million metric tons in government-owned grain stocks in 1961.

These policy shortcomings were corrected during the first half of the sixties. Grain production was pulled into better balance with utilization through programs that removed considerable acreage from production. The loan rate for wheat was scaled down to \$1.25 a bushel by the mid-sixties, and the rate for corn was lowered to \$1.05. These rates prevailed for nearly a decade.

These developments and an expansion in

exports of CCC stocks through the Food for Peace Program had reduced government stocks of grain to 44 million metric tons by 1965, down nearly a half from the 1961 peak. Thereafter, government stocks stabilized at around 16 million metric tons until shortages emerged and prices skyrocketed in 1973. Since CCC stocks could be sold in commercial markets when prices exceeded the loan rate by 15 percent, government stocks of grain were virtually exhausted by 1974.

Alternatives for the future

The International Emergency Wheat Reserve is the least developed of the two new programs for accumulating a buffer stock of grain. The Administration announced the program under authorization of the 1977 act, and nominal amounts of grain have been accumulated for the program. Clarification of the size and the purpose of the international reserve, nevertheless, still awaits Congressional action. Since Congress spent considerable time on this program during the past session, final action is expected shortly after Congress reconvenes in January.

Stocks in the International Emergency Wheat Reserve will be owned by the government. The stocks can be acquired either through defaults on CCC loans or (more likely) through direct purchases in commercial markets. The Administration originally announced that the international reserve would contain up to 6 million metric tons of wheat. This was scaled down, however, to 3 million in recent Congressional debate.

The International Emergency Wheat Reserve is intended to provide a stockpile of grains that can be used to meet the government's international food and aid commitments. A tentative accord in the negotiations for an International Wheat Agreement provides that member countries will furnish 10 million metric tons of grain a year for aid and humanitarian purposes. If the agreement is eventually adopted, the international reserve will presumably provide a backstop for the U.S. part of the commitment.

The producer-held domestic grain

reserve program now serves as the major vehicle for accumulating buffer stocks of grain. It encompasses both a feed grain reserve (corn, sorghum, oats, and barley) and a wheat reserve. The Secretary of Agriculture can decide when the program will be open and which crops, by year of harvest, are eligible for entry. When open, the program is available to grain producers complying with the voluntary requirements (such as production controls) that determine eligibility for all farm program benefits.

The reserve operates as an extended CCC loan program. While in the reserve, a farmer keeps the proceeds of the original CCC loan and, subject only to the reserve's tighter marketing restrictions, ownership of the grain. Participants agree to keep their crop off the market for three years or until market prices go above designated *trigger levels*. Penalties discourage early withdrawals from the program.

Several features of the domestic reserve program encourage participation, provided prices stay below the trigger levels. One is the government payment to participants for storing grain. Current regulations call for an annual "up front" storage payment of 25 cents a bushel (19 cents for oats). This is roughly comparable to commercial storage rates. In addition, interest charges on the CCC loan are terminated after the grain has been in the reserve a year. Still another inducement for participation is a companion program for lending farmers enough to build or repair facilities for storing two years' worth of grain production. Because the loans are fully amortized over eight years, reserve storage payments are typically enough to meet the annual payment on the storage facility loan.

Flows in and out of the domestic grain reserve are determined by the relationship between grain prices at the farm level and the trigger prices. Prices lower than the trigger encourage entry into the reserve because the storage payment offsets the cost of holding the grain while the farmer waits for a possible price rise. Alternatively, grain flows out of the reserve when market prices exceed the trigger.

Trigger prices are implemented at two tiers. The lower tier (called the release price) is the price at which farmers can begin voluntarily repaying loans and leave the program without penalty. The upper tier (known as the call price) is the price at which farmers would be required to repay their loans.

Activation of either trigger does not require a farmer to sell the grain. Once the loan is repaid, whether payment is voluntary or mandatory, the farmer is free to sell as he pleases. Storage payments end, however, when market prices go above the release price for more than a month. If prices later fall back below the release price, storage payments are resumed for participants still in the program.

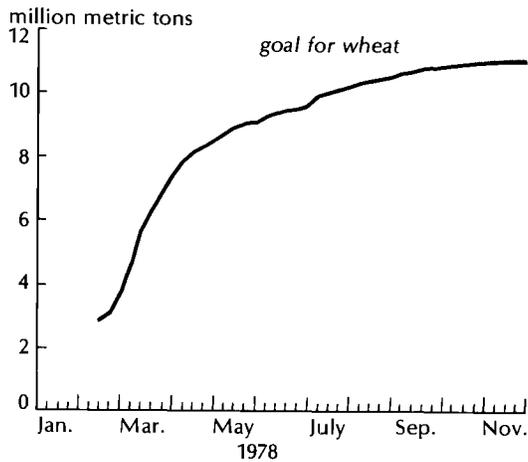
Trigger prices are tied to the prevailing loan support rates. Under current regulations, the release price of corn is set 25 percent higher than the loan rate, and the call price is set 40 percent higher. For wheat, the release price is 40 percent higher than the loan rate and the call price is 75 percent higher.

The size of the producer-held grain reserve is left largely to the discretion of the Secretary of Agriculture. The Food and Agricultural Act of 1977 calls for a wheat reserve of 8 million to 19 million metric tons but puts no limit on the size of the feed grain reserve. Initially, the secretary proposed a 9 million metric ton goal for the wheat reserve. Later the goal was raised to 11 million tons. The Administration goal for the feed grain reserve is 17 million to 19 million metric tons.

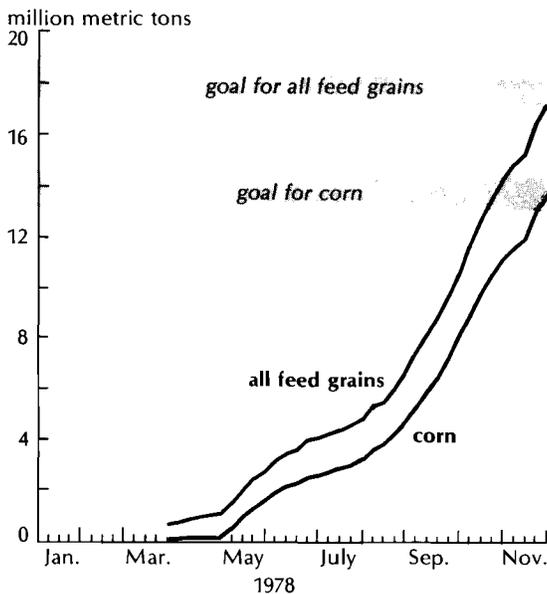
By late November, 28 million metric tons of grain had entered the reserve. The goal of 11 million metric tons for the wheat reserve had been reached, and further expansion of the reserve is not expected. The reserve is not open for the 1978 wheat crop, and almost all the 1977 wheat still under CCC loan has already entered the reserve.

Although the feed grain reserve has reached the minimal goal of 17 million metric tons, there may be some additional enrollment. The feed grain reserve was briefly opened to direct entries of 1978 crop corn, but that option was terminated on November

Enrollment in the wheat reserve reached the Administration's goal in October . . .



. . . and the goal for the feed grain reserve was achieved in November



30. However, CCC loans on some 200 million bushels of 1977 crop corn not yet in the reserve will soon mature, forcing farmers to repay, default, or extend the loans by entering the reserve. As a result, the feed grain reserve could surpass the 19 million ton mark.

Implications

There are a number of likely effects of the new reserve programs. For one, government costs could be substantial. Under current regulations, for instance, the Administration's goal of a 28 million to 30 million metric ton domestic reserve translates into an annual government expenditure of roughly \$275 million in storage payments alone. And based on current loan rates, the waiver of interest charges after the grain has been in the reserve for a year would add another \$150 million in net annual government costs. Accumulating a 3 million metric ton international wheat reserve, if approved by Congress, might require \$300 million in government outlays, not counting storage charges.

For another, the domestic reserve program also encourages expansion of on-farm storage facilities, which most studies show is less economical than commercial storage. Although still sketchy, data clearly show this and companion programs as having their effects. In fiscal 1978, the Farm Storage Facility Loan Program alone helped finance over 750 million bushels in new on-farm storage, equivalent to a third of all the storage financed in the previous 28-year history of the program.

The expansion in on-farm storage will give farmers more flexibility in marketing their crops and more control over market prices. That was clear this fall, when increased storage stiffened farmers' reluctance to sell grain and contributed to unexpected strength in prices during the harvest season.

The new reserve programs are designed partly to constrain the volatility in grain prices. The constraints are tied to loan rates and trigger prices. When enough grain is eligible for loan, the loan rate amounts to a floor under grain prices. Likewise, buffer stocks that are isolated from free market supplies place a ceiling—at least temporarily—on prices at the point where the stock can re-enter the market.

If storage facilities are adequate and the buffer stock is large enough to offset a shortage in free market supplies, these constraints

will be effective in guarding against extreme swings in grain prices. But compared with former programs that accumulated large government stocks, the new domestic reserve program incorporates a wider margin between the upper and lower price constraints. And within this wider margin, prices are apt to be more volatile than under previous programs.

In the past, the CCC could usually sell grain when the market price rose above the loan rate by 15 percent, plus carrying charges. The margin was sometimes as narrow as 5 percent. By contrast, the release prices of the new domestic reserve program will widen the margin to at least 25 percent for corn and 40 percent for wheat. The margins could go as high as 40 percent for corn and 75 percent for wheat if farmers did not leave the reserve until they were forced out when call prices were reached.

Prices are more volatile, within the constraints, simply because of the wider margins in the new program. But other factors will also contribute to price volatility. To the extent that the expansion in on-farm storage gives farmers more control over free market supplies, prices are apt to fluctuate more to accommodate a wider range of price objectives. In addition, there is more uncertainty under the new program, both as to whether the domestic reserve will be open and to what extent farmers will participate. And since farmers will own the buffer stock, the problem of concessional government sales undermining commercial foreign demand for grain is not as likely to arise as under past programs.

Concluding comments

Despite the shift in emphasis from residually acquired government stocks to government-encouraged private stocks, the Secretary of Agriculture has considerable flexibility in the management of the domestic reserve. Maybe most important of all, he can change the goal for the size of the reserve, subject only to the statutory limits of 8 million to 19 million metric tons placed on the wheat

reserve. Beyond this, he can change a number of variables that encourage or discourage participation in the reserve.

He can decide which crops, by year of harvest, are eligible for the reserve, and he can terminate eligibility at any time. He can raise or lower storage payments and waive or impose interest charges on loans covering grain in the reserve. He can extend the time the grain has to be held in the reserve up to five years. He can change loan rates, automatically setting new trigger prices, or he can change the formula that ties trigger prices to loan rates. Indirectly, the Secretary of Agriculture can change the size of the reserve through his choice of the variables associated with basic farm programs, including the loan rates, potential deficiency payment rates, and acreage set-aside requirements.

These flexibilities are important for several reasons. The overlapping variables between the domestic reserve program and the basic farm programs, for instance, could make the two hard to manage. Meeting a particular reserve goal will require careful coordination in implementing the farm programs. Alternatively, changing the variables of the farm programs to achieve a particular level of production could effect the intended scope and function of the reserve program.

The flexibilities are also important because they are broad enough to accommodate widely differing views on the best size for a grain reserve. It is conceivable, though not likely, that the domestic reserve could result in the accumulation of a buffer stock as large as the stock the government held in the early sixties. Or, the reserve could be squeezed down to an almost inconsequential level.

The new grain reserve programs have two main objectives. One is to constrain wide swings in grain prices by absorbing market supplies during times of surplus and supplementing market supplies during times of shortages. The other is to provide a buffer stock that will ease the effects of grain shortages on domestic consumers and livestock producers, foreign trading partners, and recipients of foreign aid.

These objectives are broad, with no

gauge for measuring success or failure. There is little doubt that the programs will contribute to the achievement of these objectives. Over the long run, however, the programs will be judged by the relationship between the size of the reserve, the stocks that would have been held without formal government programs, and the prevailing production/utilization balance of grains, at home and abroad.

Any judgment of success or failure at this point would be premature. As already pointed out, the size of the reserve can be influenced by political considerations. Even greater uncertainties—such as weather,

government policy, and technological developments—will also bear on the future balance between production of grains and their utilization.

Nevertheless, if buffer stocks build up to the size of those the government held in the early sixties, the new programs could be as costly and as hard to manage as the old ones. Alternatively, current buffer stocks would be virtually ineffective in offsetting chronic production shortfalls of the magnitude witnessed from 1972 to 1975. In the case of either extreme, history might eventually record that the new programs were only cosmetic changes from the old programs.

New Film Available

A new film, "The Fed . . . Our Central Bank," has been produced in order to acquaint general audiences with the purpose and functions of the Federal Reserve System. Banks, high schools, colleges, and other interested groups can obtain the up-to-date 20-minute, 16 mm color film by contacting the Federal Reserve Bank serving their area. The area served by the Federal Reserve Bank of Chicago is indicated by the shaded area on the accompanying map.

Groups in Iowa and the Seventh District portions of Illinois, Indiana, or Wisconsin should contact:

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These offices also welcome inquiries from Seventh District residents as to other available films and educational materials. Note that when requesting film bookings, it is best to make reservations at least two months ahead and to specify alternate showing dates.

Seventh District states

