

# Stocks Management Policy

Larry D. Sanders, Oklahoma State University  
Robert E. Young, II, FAPRI -- University of Missouri

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## Introduction

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The purpose of this paper is to provide background for discussion of stocks management policy as part of the general deliberation for the next farm bill. The intent is to provide an objective discussion as to the range of issues and past research related to stocks management policy.

### Framework for Discussion

It is important to remember that much of the grains, oilseeds, and fiber production in the United States occurs on an annual cycle. Thus, the product must be stored during the year until another is harvested. As a society, we are vulnerable to a crop shortfall if the previous year's crop has been consumed and there is nothing to fall back on. Such vulnerability is also obvious when one recognizes that crop production is a biological process. It depends on numerous climatological factors — rainfall being the most obvious.

The basic concept of “stocks management” policy in agriculture is fairly simple: to manage stocks of food and fiber in such a way as to maintain supplies necessary for human and animal sustenance,

while avoiding undue depression on prices and minimizing the risk related to such management.

Achieving such a balancing act, given the vagaries of nature, the market, and global politics, is much more complex. Following some major market surprises in the early and mid 1970s, a body of literature was generated regarding stocking programs. A rather dated, but easily read, publication is by Sharples, Walker, and Slaughter (1975). Taylor and Talpaz (1979), Just et. al. (1977), and Zwart and Meilke (1979) are but a few examples. In large part, this research has been neglected since the mid-1980s. In light of the change in world trade patterns, technology, and numerous other factors, the research may need to be re-examined if public decision makers anticipate making a major shift in the status quo.

### The Components of Stocks Management Policy

The key components in stocks management strategy are the need for emergency food reserves or food security, and the need to economically sustain private agricultural production.

The first policy choice for stocks management is to determine whether or not there is a need for government involvement. Costs associated with holding these commodities are real. Grain must be properly dried, turned, and sealed in order to maintain

quality. The inventory also represents significant financial holdings. The storage facility itself represents a major construction investment. Thus, if society feels a need to hold reserves at levels above that suggested by the market, then taxpayers must be prepared to support such a decision.

For an individual member of society, the benefits associated with holding these stocks will generally be difficult to determine. The Sharples, Walker, and Slaughter paper suggests a government program to hold reserves that cuts wheat price variability roughly in half, but the cost associated with such action was then (1975) estimated at \$130-\$200 million per year.

There are several shock absorbers and time lags in the food chain between producers and consumers. This sometimes makes it difficult to understand all of the ways in which higher commodity prices affect what one sees in a grocery store. Nonetheless, even minimal changes in food prices amount to a large aggregate impact for society as a whole.

Several options exist within the range of private or public stock holding decisions. Each option will have a noticeable affect on the market, i.e. those that are real and direct, and those with indirect or potential market effects. This allows the consideration of the various options along the following matrix (Table 1).

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## Alternatives and Consequences

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While public policy often revolves around what government chooses to do (through legislation and regulation), it is also what government chooses not to do — such as with laissez-faire or hands off policy allowing the private sector to deal with the problem. Information and uncertainty are underlying factors in stocks management. Generally, most private options involve no tax subsidy and have some level of downside risk for shortages in tight markets. Public options, alternatively, have some level of tax support and tend to place this value above that suggested by the market on the value of stocks held for unexpected events.

### Private Direct Options

**On-farm storage** has historically been one of the largest private storage components, with producers

**Table 1. Private and Public Alternatives for Stocks Management Policy**

CHOICE	DIRECT & REAL IMPACTS	INDIRECT & POTENTIAL IMPACTS
Private	<ol style="list-style-type: none"> <li>1. On farm storage</li> <li>2. Cooperative storage (private actions through cooperative institutions)</li> <li>3. Market determines without planning</li> <li>4. Others?</li> </ol>	<ol style="list-style-type: none"> <li>1. Market rights to future production.</li> <li>2. Others?</li> </ol>
Public (government)	<ol style="list-style-type: none"> <li>1. Farmer-owned-reserve</li> <li>2. Nonrecourse loan (CCC loan)</li> <li>3. Others?</li> </ol>	<ol style="list-style-type: none"> <li>1. Set-aside</li> <li>2. Conservation Reserve Program</li> <li>3. Maintaining surplus capacity</li> <li>4. Acreage allotment</li> <li>5. Others?</li> </ol>

holding grains and oilseeds in order to fill on-farm feeding needs as well as for speculative purposes. Basically, it is up to the producer to incorporate on-farm storage into a risk management plan. The producer must construct permanent facilities or erect temporary units on the farm. The more sophisticated producers will use the futures market to balance the risk of holding stocks. While this has essentially been market driven storage, there has been some government involvement in the form of cost-share and interest subsidies to help with construction of on-farm storage facilities in the past<sup>1</sup>. Further, the government has for years offered a variety of loan programs that allow producers to maintain cash flow, without marketing the grain. This allows the grain to remain in storage somewhat longer than would otherwise be the case.

Likely impacts of this approach to stock holding include: the producer assumes the risk of investing in storage facilities; quality and quantity of stocks will be very decentralized; planning for availability of the stocks will be dependent upon the accuracy of voluntary or mandatory reporting procedures; negotiating large grain transfers may be difficult; and tight market conditions or price spikes would suggest a lack of surplus inventory.

**Cooperative storage**, like on-farm storage, tends to have little, if any, government involvement. It provides a way for producers to pool private decision-making and risk taking. Cooperatives either hold the crop at a co-op facility or contract with some other private facility until the timing improves from a marketing perspective. Likely impacts of such an approach include: spreading the risk for profit and loss; possible opportunity for hiring professional management; improved opportunity for participating in larger negotiated transactions; and, again, without some central or government incentive to hold some minimum level of stocks, tight markets could result in shortages for the less fortunate.

**Market storage** includes stocks held by any number of entrepreneurs who may be producers, brokers, or private storage and marketing facilities — essentially anyone who holds grain for speculative purposes. As with any private sector solution, the

downside risk for shortages in the short run may be high.

### **Private Indirect Options**

**Options to future rights** may be further developed beyond the systems already in place by the market. These would commit producers and cooperative stocks to some future contracts. Likely impacts include the possibility of providing a risk management tool to producers and brokers with the market determining the distribution of value. While transactions costs may be higher and profits reduced, the market may better distribute the release of stocks to reduce unexpected shortfalls.

### **Public Direct Options**

The public sector has devised a variety of programs over the past several decades. While a variety of political purposes can be ascribed to public policy decisions, the most general reason for government intervention in the U.S. agricultural sector is market failure. Right or wrong, improperly treating a symptom or accurately targeting a public problem, public solutions to stocks management have been intended to fix a market imperfection.

**The Farmer-owned-reserve (FOR)** was, for several years, the lynch pin in government efforts to maintain a buffer stock program. It was a voluntary long-term storage program with entry and release trigger prices to bring some stability to the market, and to share some of the producer risk. When prices fell to a designated entry level, producers could place the crop in the reserve, effectively taking the stock off the market and relieving downward price pressure. As prices began to increase and eventually hit a designated release level, producers would take the stocks out of the reserve and offer them to the market. The FOR was established in the 1977 Farm Bill as a three-year extension of the regular nine-month CCC loan for wheat and feed grains. Producers were provided a loan with the crop used as collateral, however, they were also provided storage payments to offset the cost of holding on to the grain. The FOR was suspended for seven years with the

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<sup>1</sup> The 1996 Act did provide for some assistance to producers to build on-farm storage.

passage of the Federal Agriculture Improvement and Reform Act of 1996.

#### **Likely impacts for the FOR include:**

- The speculative value of holding stocks is reduced when the government sponsors the holding of stocks for extended periods of time. This dampens upward price movements, as the market understands the rules associated with bringing this grain back to the market.
- What also occurs with FOR, especially during times of high surplus stocks and lower market prices, is an increase in tax subsidized storage and interest fees. As Knutson et al note, if loan levels and release prices remain high, the incentive is for more production and reduced U.S. exports. This creates an artificial bubble that eventually must be dealt with — likely by a release that will depress prices.
- As Tweeten states, “Counter-cyclical buffer stock changes and improved crop and livestock forecasts can reduce this social cost.” It should be noted that Tweeten does state that such a benefit could justify a private solution. Nonetheless, his explanation does emphasize an outcome that a buffer stocks policy such as the FOR is a counter-cyclical solution, and such a program does reduce the uncertainty of stocks inventory and price ranges.

**The non-recourse loan (CCC loan)** program allows producers to voluntarily place commodities in the loan (plus interest and storage), giving flexibility to market production within 9-12 months, with that length of time allowed to repay the loan.

**The Marketing Loan Program** allows commodity stocks to move into the market when price levels are below non-recourse loan repayment levels. Both the non-recourse loan program and the marketing loan are addressed in other papers in this series.

#### **Public Indirect Options**

There is any number of public programs whose primary goal is not stocks management, but a likely result is some potential for buffer stocks or at least

the capacity to grow additional stocks. For example, such programs as set-aside, the Conservation Reserve Program, and acreage allotments are discussed in other papers in the series.

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## **Summary and Conclusions**

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Food security, at its most basic level, is achieving supply equivalent to demand, assuring no shortages. Whether it is driven by the populace perceiving a basic right to food, or by government perceiving itself obliged to provide its citizens with some minimal level of food, the result is the same: production and/or harvested crop must be managed in such a way as to achieve the goal that food will be there when needed. Normally, food security is a national goal. As more economies mature and increase levels of discretionary income, a sense of regional or global food security is evolving.

Private solutions are paid for by the market rather than by the taxpayer — although public welfare programs may become more expensive for taxpayers if the market fails to provide for consumers with an inability to pay. However, they allow maximum freedom to various actors along the marketing chain, and may undervalue the need for buffer stocks for social needs and unexpected events. Public solutions funded by the taxpayer may provide windfall/monopoly profits to some actors in the marketing chain, but they are more likely to cover social needs and unexpected events, encourage surplus production and capacity, and tend to over-value surplus.

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## **References and Suggested Readings**

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