

Politics and Economics: The Case of Agricultural Markets

American farmers have become welfare addicts, protected and assisted at every turn by a network of programs paid for by their fellow citizens. If Americans still believe in the virtue of self-reliance, they should tell Washington to get out of the way and let farmers practice it.

—Stephen Chapman

Ever since the 1930s, the U.S. Congress has provided aid to farmers in the form of price supports and other payments. In the early 1990s, Congress tried to wean farmers off government support systems with the Freedom to Farm Act. It paid them a large amount of support immediately with the understanding that, in the future, price supports and other payments would be reduced. That didn't happen, and, every few years, Congress passes an agricultural support bill that continues support payments to farmers for a variety of programs. Why? The answer lies in politics, not economics; a number of farm states are swing states in elections, and both parties want to win their votes.

Agricultural markets provide good examples of the interaction between the invisible hand and political forces. Considering the economics of agricultural markets shows us how powerful a tool supply/demand analysis is in helping us understand not only the workings of perfectly competitive markets but also the effects of government intervention in a market.

While the chapter is about agricultural markets, bear in mind that the lessons of the analysis apply to a wide variety of markets in which the invisible hand and politics interact. As you read the chapter, applying the analysis to other markets will be a useful exercise.

The Nature of Agricultural Markets

In many ways, agricultural markets fit the classic picture of perfect competition. First, there are many independent sellers who are generally *price takers*. Second, there are many buyers. Third, the products are interchangeable: Farm A's wheat can readily be substituted for farm B's wheat. And fourth, prices can, and do, vary considerably. On the basis of these inherent characteristics, it is reasonable to talk about agricultural markets as competitive markets.

In other ways, however, agricultural markets are far from perfectly competitive. The competitiveness of many agricultural markets is influenced by government programs. In fact, neither the United States nor any other country allows the



Photo by Lynn Betts, courtesy of USDA Natural Resources Conservation Service/DAL.

AFTER READING THIS CHAPTER, YOU SHOULD BE ABLE TO:

1. Describe the competitive nature of agricultural markets.
2. Explain the good/bad paradox in farming.
3. State the general rule of political economy in a democracy.
4. Explain how a price support system works.
5. Explain, using supply and demand curves, the distributional consequences of four alternative methods of price support.
6. Discuss real-world pressures politicians face when designing agricultural policy.



The Cost of a Box of Wheaties

When people think of agricultural products, they often think of the products they buy, like Wheaties. Doing so gives them the wrong impression of the cost of agricultural products. To see why, let's consider an 18-ounce box of Wheaties that costs you, say, \$3.35.

If you look at the ingredients, you'll see that you're buying wheat, sugar, salt, malt syrup, and corn syrup. So you're buying agricultural products, right? Well, a little bit. Actually, the total cost of those agricultural ingredients is probably somewhere around 35 cents, about 10 percent of the cost of the box of Wheaties. What are you



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spending the other 90 percent on? Well, there's packaging, advertising, transporting the boxes, processing the ingredients, stocking the grocery store shelves, and profits. These are important components of Wheaties, but they aren't agricultural components.

The point of this example is simple: Much of our food expenditure isn't for agricultural goods; it's for the services that transform agricultural goods into processed foods, convince us we want to eat those foods, and get those foods to us.

Agricultural markets involve a constant struggle between political and economic forces.

market, unhindered, to control agricultural prices and output. For example, the U.S. government sets a minimum price for milk; buys up large quantities of wheat and stockpiles it; and allows only those with government-issued licenses to grow tobacco.

I could have made the list of government programs much longer because the government has a program for just about every major agricultural market. The point is clear, however: The competitive market in agriculture is not a story of the invisible hand alone. It's the story of a constant struggle between political and economic forces. Whenever the invisible hand pushes prices that farmers receive down, various coalitions of political forces generally work to push them back up. Without continued political pressure and government programs, far fewer farms would exist. Farm states know this and are strongly encouraging their farmers to engage in *value-added farming*, in which farmers take over some of the other activities that give agricultural goods their value to the consumer.

The good/bad paradox is the phenomenon of doing poorly because you're doing well.

The Good/Bad Paradox in Agriculture

Agriculture is characterized by what might be called a **good/bad paradox** (*the phenomenon of doing poorly because you're doing well*). This good/bad paradox shows up in a variety of ways. Looking at the long run, we see that the enormous increase in agricultural productivity over the past few centuries has reduced agriculture's importance in U.S. society and has forced many farmers off the farm. Looking at the short run, we see that when harvests are good, farmers often fare badly financially; when harvests are poor, some farmers do very well financially. Let's consider these two cases in some detail.

The Long-Run Decline of Farming

Most countries, the United States included, began as predominantly agricultural societies. When the United States was founded about 225 years ago, 97 percent of the labor force was engaged in farming. Today less than 2 percent of the U.S. labor force works in agriculture.

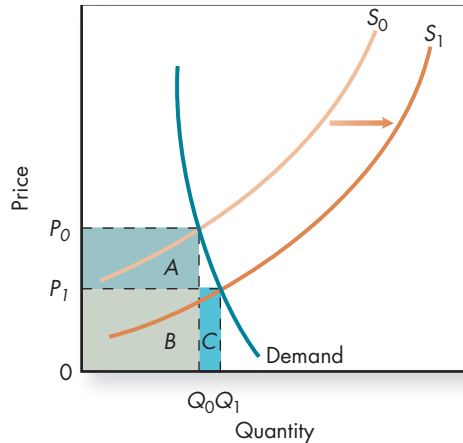


FIGURE 21W-1 The Good/Bad Paradox

The good/bad paradox is demonstrated in this graph. At price P_0 , the quantity of wheat produced is Q_0 . Total income is P_0Q_0 . But if increased productivity increases the supply of wheat from S_0 to S_1 , the price of wheat will fall from P_0 to P_1 and quantity demanded will increase from Q_0 to Q_1 . The increase in farmers' income (area C) is smaller than the decrease in farmers' income (area A). Increased productivity decreased farmers' incomes.

The decline in the number of farmers isn't the result of the failure of U.S. agriculture. Rather, it's the result of its tremendous success—the enormous increase in its productivity. It used to take the majority of the population to provide food for the United States. Today it takes only a small proportion to produce more food than the U.S. population can consume.

Figure 21W-1 shows how success, however, can lead to problems. In the long run, the demand for wheat is inelastic (i.e., the percentage change in quantity demanded is small relative to the percentage change in price), as it is for most agricultural products, so the figure shows the equilibrium in the inelastic portion of the demand curve.

In this example, initially farmers are selling quantity Q_0 for price P_0 . Their total income is P_0Q_0 , shown by rectangles A and B. Now say that increases in productivity shift the supply curve out from S_0 to S_1 . Output increases from Q_0 to Q_1 , and price falls by a proportionately greater amount to P_1 . Income falls to P_1Q_1 , shown by the B and C rectangles. Farmers gained the C rectangle but lost the A rectangle. The net effect is the difference in size between the two rectangles. So, the net effect is negative.

In short, although productivity has increased, total revenue has fallen and many farmers have stopped farming altogether. They've done good by producing a lot, but the result for themselves is bad. This good/bad paradox will occur whenever the supply curve shifts outward in the inelastic range of the demand curve.

Due to competition among farmers, most benefits of productivity increases in agriculture have gone to consumers in the form of lower prices. As an example, consider chicken. In the early 1930s, when Herbert Hoover was president of the United States and running for reelection, he promised prosperity to the country by saying there would be “two chickens in every pot.” That promise meant a lot because, in today's money, chicken then cost \$8 a pound. Today the price of chicken is under \$2 a pound, only about one-quarter of its price in 1930.

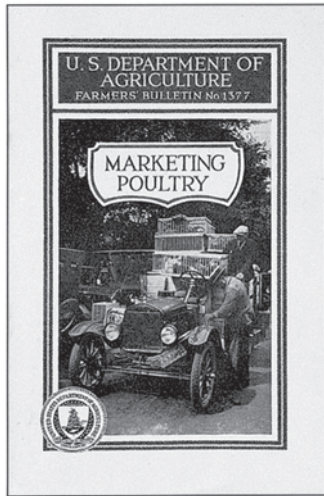
The Short-Run Cyclical Problem Facing Farmers

The long-run good/bad paradox for farmers is mirrored by a short-run good/bad paradox: Good harvests often mean bad times and a fall in income; poor harvests often mean a rise in income.

A fact of life that farmers must deal with is that agricultural production tends to be highly unstable because it depends on weather and luck. Crops can be affected by too

Q-1 What is the good/bad paradox?

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Marketing Poultry, a 1936 Department of Agriculture publication, is representative of the major role government has played in agriculture.

Courtesy of U.S. Department of Agriculture.

Q-2 How can it be in the interest of the agricultural industry to have a “bad year”?

Q-3 What are two ways around the good/bad paradox?

little rain, too much rain, insects, frost, heat, wind, hail—none of which can be easily controlled. Say you’re an apple grower and you’re having a beautiful spring—until the week that your trees are blossoming, when it rains continually. Bees don’t fly when it rains, so they don’t pollinate your trees. No pollination, no apple crop. There goes your apple crop for this year, and there goes your income.

The short-run demand for most agricultural goods is even more inelastic than the long-run demand. Because short-run demand is so inelastic, short-run changes in supply can have a significant effect on price. The result is that good harvests for farmers in general can lower prices significantly, while poor harvests can raise prices significantly. When the short-run price effect overwhelms the short-run quantity effect (as it does when demand is inelastic), farmers face the short-run good/bad paradox.

The Difficulty of Coordinating Farm Production

This good/bad paradox caused by inelastic demand isn’t lost on farmers. They, quite naturally, aren’t wild about passing on the gains to consumers instead of keeping the gains themselves. However, because agriculture is competitive, it is not in any one farmer’s interest to decrease his or her supply to avoid encountering the paradox. Competitive farmers take the market price as given. That’s the definition of a competitive industry. While it is in the industry’s interest to have a “bad year” (to reduce total supply), it is in each individual farmer’s interest to have a good year (to increase output) even if the combination of *all* farmers having a good year would cause all farmers to have a bad year (revenues would fall).

It is, however, in farmers’ joint interest to figure out ways to have continually “bad” years—which are, of course, actually “good” years for them. In other words, it’s in their interest to figure out ways to limit the production of all farmers.

In a competitive industry, limiting production is easier said than done. It is difficult for farmers to limit production privately among themselves because although they make up only a small percentage of the total U.S. population, there are still a lot of them; there were approximately 3 million farm workers in 2009. That’s too many to coordinate easily.

Ways around the Good/Bad Paradox

The difficulty of organizing privately to limit supply can be avoided by organizing through government. The U.S. political structure provides an alternative way for farmers (and other suppliers) to coordinate their actions and limit supply. Suppliers can organize and get government to establish programs to limit production or hold price high, thereby avoiding the good/bad paradox. And that’s what farmers did, which is why so many government agricultural programs exist today. These programs have been a combination of **price stabilization programs**—*programs designed to eliminate short-run fluctuations in prices, while allowing prices to follow their long-run trend line*—and **price support programs**—*programs designed to maintain prices at levels higher than the market prices*.

The General Rule of Political Economy

If farmers are helped by farm programs, who is hurt? The answer is taxpayers and consumers. One would expect that these broad groups would strongly oppose farm programs because farm programs cost them in two ways: (1) higher taxes that government requires to buy up surplus farm output and (2) higher prices for food. It’s not easy for a politician to tell nonfarm constituents, “I’m supporting a bill that means higher prices and higher taxes for you.” Nevertheless, the farm lobby has been quite successful in seeing that these programs are retained.

Economists who specialize in the relationship between economics and politics (known as *public choice economists*) have suggested that the reasons for farm groups' success involve the nature of the benefits and costs. The groups that are hurt by agricultural subsidies are large, but the negative effect on each individual in that group is relatively small. Large groups that experience small costs per individual don't provide a strong political opposition to a small group that experiences large gains. This seems to reflect the **general rule of political economy** in a democracy that we discussed in a previous chapter: *When small groups are helped by a government action and large groups are hurt by that same action, the small group tends to lobby far more effectively than the large group*; thus, policies tend to reflect the small group's interest, not the interest of the large group.

This bias in favor of farm programs is strengthened by the historical representation of farmers in Congress. Right from its beginnings in 1787, the U.S. political system has reflected the importance of agriculture. The Constitution gives representation in the Senate equally to all states. Only representation in the House of Representatives is based on a state's population. Since farm states have smaller populations than urban states, this arrangement gives farmers relatively more political power per capita than nonfarmers. This political structure plays an important role in making the farm states the voter swing states in national elections and, in part, explains why farmers can lobby effectively for strong support packages.

Farmers' strong political representation in Congress establishes a core of lawmakers who favor price supports. That core is supplemented with individuals who like the countryside filled with farms rather than with suburban sprawl. Consumers and taxpayers in general, who would be hurt by price supports, generally lack the political organization necessary to make their will known and counter the pressure for price controls.

Four Price Support Options

Let's now consider the theory underlying some alternative farm price support options. In doing so, we'll try to understand which options, given the political realities, would have the best chance of being implemented, and why.

In a price support system, the government maintains a higher-than-equilibrium price, as diagrammed in Figure 21W-2. At support price P_1 , the quantity people want to supply is Q_S , but the quantity demanded at that price is Q_D .

At price P_1 , there's excess supply, which exerts a downward pressure on price (arrow A). To maintain price at P_1 , some other force (arrow B) must be exerted; otherwise the invisible hand will force the price down.

The government has various options to offset the downward pressure on price. These include

1. Using legal and regulatory force to prevent anyone from selling or buying at a lower price.
2. Providing economic incentives to reduce the supply enough to eliminate the downward pressure on price.
3. Subsidizing the sale of the good to consumers so that while suppliers get a high price, consumers have to pay only a low price.
4. Buying up and storing, giving away, or destroying enough of the good so that the total demand (including government's demand) increases enough to eliminate downward pressure on price.

These methods distribute the costs and benefits in slightly different ways. Let's consider each in detail.

The general rule of political economy states that small groups that are significantly affected by a government policy will lobby more effectively than large groups that are equally affected by that same policy.

Farmers' strong political representation in Congress establishes a core of lawmakers who favor price supports.

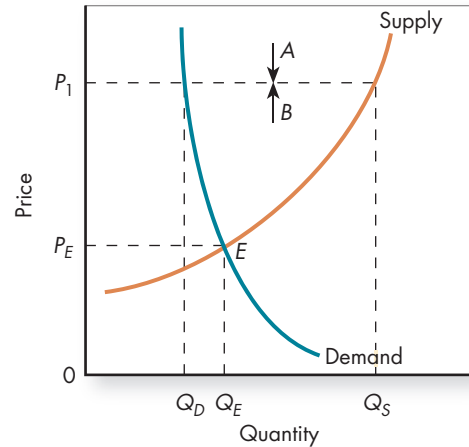
In a price support system, the government maintains a higher-than-equilibrium price.

Four price support options are

1. Using regulatory force.
2. Providing economic incentives to reduce supply.
3. Subsidizing the sale of goods to consumers.
4. Buying up and storing, giving away, or destroying the good.

FIGURE 21W-2 A Price Support System

In a price support system, the government maintains a higher-than-equilibrium price. At support price P_1 , the quantity of product demanded is only Q_D , while the quantity supplied is Q_S . This causes downward pressures on the price, P_1 , which must be offset by various government measures.



Supporting the Price by Regulatory Measures

Suppose the government simply passes a law saying that, from now on, the price of wheat will be at least \$5 per bushel. No one may sell wheat at a lower price. If the competitive equilibrium price is higher than \$5, the law has no effect. When the competitive equilibrium is below the price floor (say the competitive equilibrium is \$3.50 per bushel), the law limits suppliers from selling their wheat at that lower price.

The price floor helps some suppliers and hurts others. Those suppliers lucky enough to sell their wheat benefit. Those suppliers who aren't lucky and can't find buyers are hurt. How many suppliers will be helped and how many will be hurt depends on the elasticities of supply and demand. When supply and demand are inelastic, a large change in price brings about a small change in quantity supplied, so the hurt group is relatively small. When the supply and demand are elastic, the hurt group is larger.

In Figure 21W-3(a), at \$5 suppliers would like to sell quantity Q_2 but they can sell only Q_1 . They end up with a surplus of wheat, $Q_2 - Q_1$. Consumers, who must pay the higher price, \$5, and receive only Q_1 rather than Q_e , are also hurt.

The Need for Rationing The law may or may not specify who will, and who will not, be allowed to sell, but it must establish some noneconomic method of rationing the limited demand among the suppliers. If it doesn't, buyers are likely, for example, to buy from farmers who are their friends. If individual farmers have a surplus, they'll probably try to dispose of that surplus by selling it on the black market at a price below the legal price. To maintain the support price, the government will have to arrest farmers who sell below the legal price. If the number of producers is large, such a regulatory approach is likely to break down quickly since individual incentives to sell illegally are great and the costs of enforcing the law are accordingly high.

In understanding who benefits and who's hurt by price floors, it's useful to distinguish between two groups of farmers: the farmers who were producing before the law went into effect and the farmers who entered the market afterward. In Figure 21W-3(a), the first group supplies Q_e ; the second group, which would want to enter the market when the price went up, would supply $Q_2 - Q_e$. Why must these groups be clearly identified? Because one relatively easily enforceable way to limit the quantity supplied is to forbid any new farmers to enter the market. Only people who were producing at the beginning of the support program will be allowed to produce, and they will be allowed to produce

With a price floor, some method of nonprice rationing must determine how the limited demand will be distributed among suppliers.

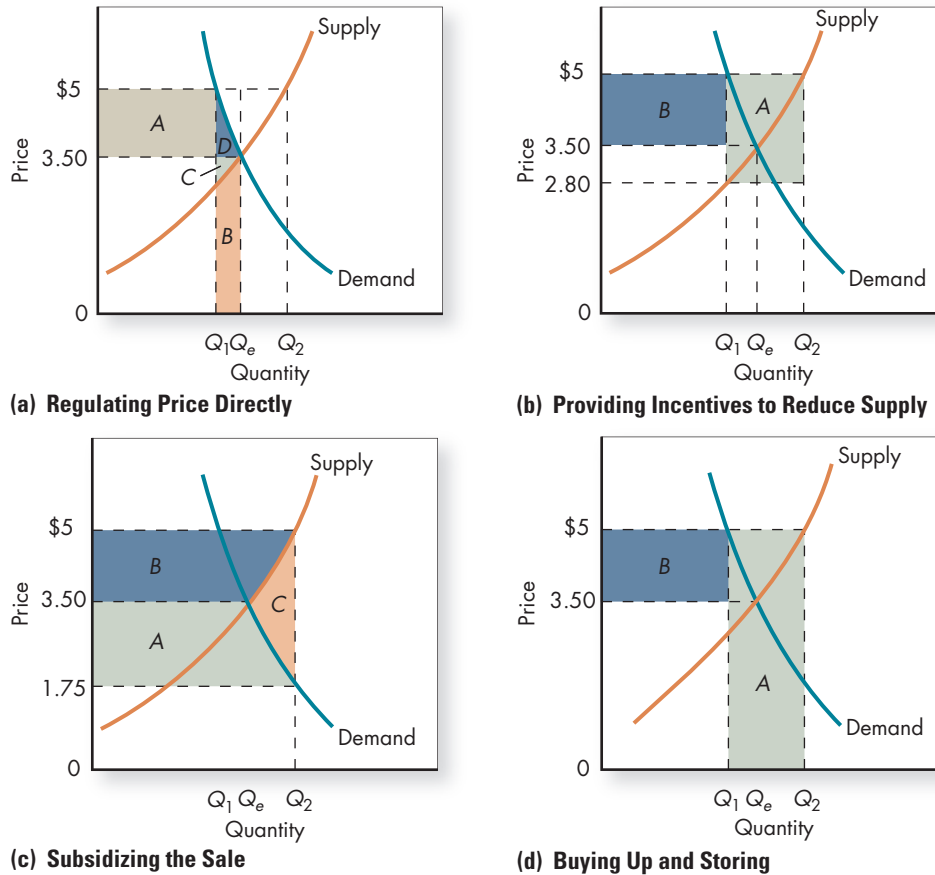


FIGURE 21W-3 (A, B, C, AND D)
Alternative Methods of Government Price Supports

Alternative methods have different distributional consequences. The consequences of regulatory measures are shown in (a); the consequences of providing economic incentives to reduce supply in (b); the consequences of subsidizing the sale in (c); and the consequences of buying up and storing the good in (d).

only as much as they did before the program went into effect. Restricting production to the existing suppliers will reduce the quantity supplied to Q_e , leaving only $Q_e - Q_1$ to be rationed among suppliers.

To use this method of restriction is to **grandfather**—to pass a law affecting a specific group but providing that those in the group before the law was passed are exempt from some provisions of the law. To “grandfather in” existing suppliers is one of the easiest provisions to enact into law and one of the easiest to enforce; thus, it is one of the most widely used. For example, when supply limitations were placed on tobacco, existing growers were all allowed to grow tobacco on land they were currently using for tobacco production. They could not, however, devote any new land to growing tobacco. (Later, tobacco farmers were allowed to sell their acreage allocations so that if old land was taken out of tobacco production, new land could be added.)

When it comes to keeping groups out of production, foreign producers are perhaps the politically easiest targets. To keep the domestic price of a good up, foreign imports, as well as domestic production, must be limited. U.S. taxpayers might put up with subsidizing U.S. farmers, but they’re likely to balk at subsidizing foreign farmers. So most farm subsidy programs are supplemented with tariffs and quotas on foreign imports of the same commodity. (See Chapter 9 for definitions and further discussion of tariffs and quotas.)

Distributional Consequences Notice that with the equilibrium in the inelastic portion of the demand curve, even though the average farmer is constrained as to how

Grandfathering is one of the politically easiest ways of restricting supply.

much can be sold, he or she is made better off by that constraint because the total revenue going to all farmers is higher than it would be if supply weren't constrained. The farmer's total revenue from this market increases by rectangle *A* in Figure 21W-3(a) and decreases by the rectangle composed of the combined areas *B* and *C*. Of course, making the farmer better off is not cost-free. Consumers are made worse off because they must pay more for a smaller supply of wheat. There's no direct cost to taxpayers other than the cost of enforcing and administering the regulations.

Notice in the diagram the little triangle made up of areas *C* and *D*. It shows an amount of income that society loses but farmers don't get; it's simply wasted. As discussed in Chapter 8, that little triangle is the welfare loss of producer and consumer surplus to society from the restriction.

Providing Economic Incentives to Reduce Supply

A second way in which government can keep a price high is to provide farmers with economic incentives to reduce supply.

Looking at Figure 21W-3(b), you see that at the support price, \$5 per bushel, the quantity of wheat supplied is Q_2 and quantity demanded is Q_1 . To avoid a surplus, the government must somehow find a way to shift the quantity supplied back from Q_2 to Q_1 . For example, it could pay farmers not to grow wheat, as it did in the acreage control programs established under President John F. Kennedy in the early 1960s. How much would such an economic incentive cost? Given the way the curves are drawn, to reduce the quantity supplied to Q_1 , the government would have to pay farmers \$2.20 ($\$5.00 - \2.80) for each bushel of wheat they didn't grow. This payment of \$2.20 would induce suppliers producing $Q_2 - Q_1$ not to produce, reducing the quantity supplied to Q_1 . The payment is shown by the *A* rectangle.

The Need for Rationing There is, however, a problem in identifying those individuals who would truly supply wheat at \$5 a bushel. Knowing that the government is paying people not to grow wheat, people who otherwise had no interest in growing wheat will pretend that at \$5 they would, simply to get the subsidy. To avoid this problem, often this incentive approach is combined with our first option, regulatory restrictions. Farmers who are already producing wheat at Q_e are grandfathered in; only they are given economic incentives not to produce. All others are forbidden to produce.

Distributional Consequences When economic incentives are supplied, the existing farmers do very well for themselves. Their income goes up for two reasons. They get part of the *A* rectangle from the government in the form of payments not to grow wheat, and they get the *B* rectangle from consumers in the form of higher prices for the wheat they do grow. Farmers are also free to use their land for other purposes, so their income rises by the amount they can earn from using the land taken out of wheat production for something other than growing wheat. Consumers are still being hurt as before: They are paying a higher price and getting less. In addition, they're being hurt in their role as taxpayers because the lightly shaded area (rectangle *A*) represents the taxes they must pay to finance the government's economic incentive program. Thus, this option is much more costly to taxpayers than the regulatory option.

Subsidizing the Sale of the Good

A third option is for the government to subsidize the sale of the good to hold down the price consumers pay but keep the amount suppliers receive high. Figure 21W-3(c)

Q-4 Which of the four methods of price support would farmers favor least? Why?

shows how this works. Suppliers supply quantity Q_2 and are paid \$5 per bushel. The government then turns around and sells that quantity at whatever price it can get—in this case, \$1.75. No direct transfer takes place from the consumer to the supplier. Both are made better off. Consumers get more goods at a lower price. They are benefited by area *A*. Suppliers get a higher price and can supply all they want. They are benefited by area *B*. What’s the catch? The catch, of course, is that taxpayers foot the entire bill, paying the difference between the \$5 and the \$1.75 (\$3.25) for each bushel sold. The cost to taxpayers is represented by areas *A*, *B*, and *C*. This option costs taxpayers the most of any of the four options.

Q-5 Which of the four methods of price support would taxpayers favor least? Why?

Buying Up and Storing, Giving Away, or Destroying the Good

The final option is for the government to buy up all the quantity supplied that consumers don’t buy at the support price. This option is shown in Figure 21W-3(d). At the support price of \$5 a bushel, consumers buy Q_1 and the government buys $Q_2 - Q_1$ at a total cost represented by the *A* rectangle.

Distributional Consequences In this case, consumers transfer the *B* rectangle to suppliers when they pay \$5 rather than \$3.50, the competitive equilibrium price. The government (i.e., the taxpayers) pays farmers rectangle *A*. The situation is very similar to our second option, in which the government provides suppliers with economic incentives not to produce. However, this fourth option is more expensive for the government since it must pay \$5 rather than providing a \$2.20-per-bushel incentive not to grow as it did in option (b). In return for this higher payment, the government is getting something in return: $Q_2 - Q_1$ of wheat.

Q-6 Which of the four methods of price support would consumers favor least? Why?

The Need to Dispose of Surplus Of course, if the government buys the surplus wheat, it takes on the problem of what to do with this surplus. Say the government decides to give it to the poor. Since the poor were already buying food, in response to a free food program they will replace some of their purchases with the free food. This replacement brings about a drop in demand—which means that the government must buy even more surplus. Instead of giving it away, though, the government can burn the surplus or store it indefinitely in warehouses and grain elevators. Burning up the surplus or storing it, at least, doesn’t increase the amount government must buy.

Why, you ask, doesn’t the government give the surplus to foreign countries as a type of humanitarian aid? The reason is that just as giving the surplus to our own poor creates problems in the United States, giving the surplus to the foreign poor creates problems in those countries. To the degree that the foreign poor have any income, they’re likely to spend most of it on food. Free food would supplant some of their demand, thus lowering the price for those who previously sold them food. Giving anything away destroys somebody’s market, and when markets are destroyed someone gets upset. So when the United States has tried to give away its surplus food, other foreign countries have put enormous pressure on the United States not to “spoil the world market.”

Which Group Prefers Which Option?

The four price support options I’ve just described can, of course, be used in various combinations. It’s a useful exercise at this point to think through which of the options farmers, taxpayers, and consumers would likely favor and to relate current debates about farm programs to these options.

The U.S. House Committee on Agriculture posts information about current farm legislation at www.agriculture.house.gov.

The first option, regulation, costs the government the least, but it benefits farmers the least. Since existing farmers are likely to be the group directly pushing for price supports, government is least likely to choose this approach. If it is chosen, most of the required reduction in quantity supplied will probably come from people who might enter farming at some time in the future, not from existing farmers.

The second option, economic incentives, costs the government more than the first option but less than the third and fourth options. Farmers benefit from economic incentive programs in two ways. They get paid not to grow a certain crop, and they can sometimes get additional income from using the land for other purposes. When farmers aren't allowed to use their land for other purposes, they usually oppose this option, preferring the third or fourth option.

The third option, subsidies on the sales to keep prices down, benefits both consumers (who get low prices) and farmers (who get high prices). Taxpayers are harmed the most by this option. They must finance the subsidy payments.

The last option, buying up and storing or destroying the goods, costs taxpayers more than the first two options but less than the third since consumers pay part of the cost. However, it leaves the government with a surplus to deal with. If there's a group who can take that surplus without significantly reducing their current demand, then that group is likely to support this option.

Economics, Politics, and Real-World Policies

Q-7 What two farm programs have been the most prevalent in the United States?

The two farm programs most prevalent in the United States have been the **land bank program** (in which *government supports prices by giving farmers economic incentives to reduce supply*) and the **nonrecourse loan program** (in which *government “buys” goods in the form of collateral on defaulting loans*). Programs that support prices through regulation, our first option, generally haven't been applied to existing farmers. They have often been used, however, to prevent new farmers from entering the market—which isn't surprising since the political impetus for farm programs comes from existing farmers. The third option, to subsidize the sale of the good so the farmer gets a high price and the consumer pays a low price, hasn't been used because, as discussed previously, it would be the most costly to taxpayers.

Interest Groups

The actual political debate is, of course, much more complicated than presented here. For example, other pressure groups are involved. Recently, farm groups and environmental groups have combined forces and have become more effective in shaping and supporting farm policy. Thus, recent new restrictions on supply in farming often operate in ways that environmentalists would favor, such as regulating the types of fertilizer and chemicals farmers can use.

Q-8 Are taxpayers, farmers, and consumers separate groups that are independent of each other?

Moreover, the three interest groups discussed here—farmers, taxpayers, and consumers—aren't entirely distinct one from another. Their memberships overlap. All taxpayers are also consumers, farmers are both taxpayers and consumers, and so on. Thus, much of the political debate is simply about from whose pocket the government is going to get money to help farmers. Shall it be the consumer's pocket (through higher prices)? Or the taxpayer's (through higher taxes)? That said, the political reality is that consumer and taxpayer interests and the lobbying groups that represent them generally examine only part of the picture—the part that directly affects them. Accordingly, politicians often act as if these groups had separate memberships. Politicians weigh the options by attempting to balance their view of the general good with the power and preferences of the special interest groups that they represent or that contribute to their election campaigns.



Changes in U.S. Agricultural Policy

In 1996 the U.S. government voted for sweeping reforms designed to eliminate major aspects of the farm support programs by 2002. What made that politically possible was a combination of three forces: (1) the government deficit, which put pressure on government to eliminate costly programs; (2) the ability of U.S. farmers to sell abroad, which reduced the benefits of the existing farm support program to them; and (3) the general pro-market ideology that gained favor in the late 1990s and early 2000s.

When we look at the reforms more carefully, they look less sweeping than they initially appeared. There are three reasons why. First, three of the programs that most sharply limit production—peanut, sugar, and dairy programs—were left untouched because of strong lobbying efforts directed at members of Congress. Second, while in a number of areas direct price supports were eliminated, other indirect price support systems were not. The most important of these was the program that allows farmers to borrow money cheaply from the government, using the expected crop as collateral. This program allows the farmer to default on the loan, instead of paying it back, should the price of their crop be less



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than the prices set as collateral. This means that if agricultural prices fall significantly, the buy-up-and-store option discussed in the text will still exist and will hold prices up. This method of price support is extraordinarily costly to taxpayers.

Third, to “compensate” farmers for their elimination of direct price supports, the government gave direct grants to farmers. These grants were scheduled to start at \$5.8 billion in 1998 and fall to \$4 billion by 2002, when the law ended. With agricultural prices high, as they were at the time the law was passed, the net result of this “compensation” was that the total payments to farmers were initially higher than they were under the old price support system. As prices fell in 1999, large emergency grants were given to farmers. In 2002 Congress passed a large

farm bill that reintroduced and expanded subsidies to U.S. farmers and Congress continued those subsidies with another farm bill in 2008. These subsidies were continued despite pressure from the WTO to reduce them. In fact, the Doha round of international cooperation failed because of the unwillingness of the United States and Europe to reduce their farm subsidies.

International Issues

The final real-world complication that must be taken into account is the international dimension. If you think government is significantly involved in U.S. agriculture, you should see its role in other countries such as the members of the European Union (EU) and Japan. For example, more than half the EU’s budget is devoted to farm subsidies, and most of its farms stay in business only because of protection. Our agricultural policy is, in part, determined by trade negotiations with these other countries. For example, a reduction in EU subsidies could bring about a reduction in our subsidies.

A second important international dimension of agricultural markets involves the growth of the Chinese and Indian economies. As these economies grow, the demand for food increases, both because people in these countries are eating more and because they are switching to eating more meat, which requires more grain per calorie than would a diet of primarily grain. The result of this increase in demand is an upward pressure on food prices. In the past, that upward pressure has been more than offset by new technological developments, such as the Green Revolution, which has increased supply more than demand. That is why in the past food prices have fallen over time. Whether that can continue is an open question.

If you think government is significantly involved in U.S. agriculture, you should see its role in other countries such as the members of the European Union and Japan.

Conclusion

This chapter has focused on agricultural markets, but it should be clear that the discussion is about much more than just agriculture; it's about the interrelationship between economics and politics. If individuals are self-interested maximizers, it's reasonable to assume that they're maximizers in all aspects of their lives. What they can't achieve in the economic sphere, they might be able to achieve in the political sphere.

To understand the economic policies that exist, we must consider how people act in both spheres. Consideration of the economics underlying government policies often leads to useful insights. For example, as discussed in Chapter 8, a military draft can be seen as a mechanism for shifting the costs of defense away from the taxpayer and onto a specific group of individuals—young people. The government's support for the arts can be seen as a transfer from general taxpayers to a specific group of individuals who like the arts. Government support for education can be seen as a transfer from general taxpayers to a specific group of individuals: students and instructors. These groups maintain strong lobbies to achieve their political ends, and the interaction of the various lobbying groups typically strongly influences what policies government will follow.

Economics doesn't tell you whether government intervention or any particular policy is good or bad. That you must decide for yourself. But what economics can do is pose the policy question in terms of gains and losses for particular groups. Posing the question in that framework often cuts through to the real reasons behind various groups' support for this or that policy. Often people support programs that transfer money from other taxpayers and consumers to themselves. They are, however, unlikely to say that is their motive. For example, I've seldom heard teachers say that the reason they favor government support for education is that those policies transfer money to them.

The economic framework directs you to look beyond the reasons people say they support policies; it directs you to look for the self-interest. The supply/demand framework provides a neat graphical way to picture the relative gains and losses resulting from various policies.

But as usual there's an *on the other hand*. Just because some groups may support policies for self-serving reasons, it is not necessarily the case that the policies are bad or shouldn't be adopted. Reality is complicated, with many more gray answers than black-and-white ones.

Q-9 Is the military draft a cheaper way of maintaining defense than a volunteer army?

Q-10 Economic theory tells us that a volunteer army is preferable to an army maintained by a draft. True or false? Why?

Summary

- Agricultural markets have many qualities of perfectly competitive markets: sellers are price takers, there are many buyers, products are interchangeable, and prices vary considerably. The competitiveness of agricultural markets is affected by significant government intervention.
- The good/bad paradox is the result of the inelastic demand in most agricultural markets. Increases in productivity increase supply; but because demand is inelastic, the percentage decline in price is greater than the percentage increase in equilibrium quantity. Total revenue declines.
- A general rule of political economy in a democracy is that policies tend to reflect small groups' interests, not the interests of large groups.
- Because farmers are a small, easily identifiable group, and because farm states get larger representation relative to population in the Senate, the farm lobby is very strong.

- A price support program works by government maintaining higher-than-equilibrium prices through regulations, economic incentives, subsidies, and/or buying up and storing or destroying.
- Regulatory price supports cost government the least, but benefit the farmers the least.
- Economic incentive price supports cost the government and taxpayers more than regulatory price supports, but less than subsidy price supports or buying up and storing the good.
- Subsidy price supports benefit consumers, who pay lower prices, and farmers, who receive higher prices. Subsidy price supports cost taxpayers the most.
- Buying up and storing the good gives government a surplus to deal with.
- Two prevalent farm programs in the United States are the land bank program, in which government gives farmers economic incentives to reduce supply, and the nonrecourse loan program, in which government “buys” goods in the form of collateral on defaulting loans.
- Agricultural policy is affected by interest groups (consumers, taxpayers, and farmers) and international issues (farm policies of our trading partners).

Key Terms

general rule of political economy (21W-5)
good/bad paradox (21W-2)
grandfather (21W-7)

land bank program (21W-10)
nonrecourse loan program (21W-10)

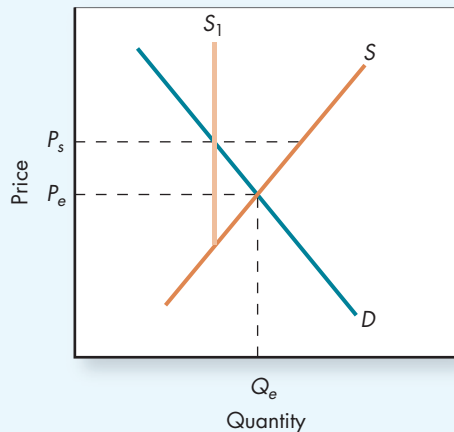
price stabilization program (21W-4)

price support program (21W-4)

Questions and Exercises

1. Would you characterize the agriculture market in the United States as perfectly competitive? Why or why not? LO1
2. If the demand for farm products were elastic rather than inelastic, would the good/bad paradox still exist? Why or why not? LO2
3. What is the general rule of political economy? How does it relate to the agriculture market? LO3
4. Show graphically how the effects of an increase in supply will differ according to the elasticities of supply and demand.
 - a. Specifically, demonstrate the following combinations:
 1. An inelastic supply and an inelastic demand.
 2. An elastic supply and an inelastic demand.
 3. An elastic supply and an elastic demand.
 4. An inelastic supply and an elastic demand.
 - b. Demonstrate the effect of a government guarantee of the price in each of the four cases.
 - c. If you were a farmer, which of the four combinations would you prefer? LO2, LO4
5. Demonstrate, using supply and demand curves, the distributional consequences of a price support system achieved through a creager restriction. LO5
6. Which would a taxpayers' group prefer: price support achieved through buying up the surplus or through providing economic incentives for not producing? Why? LO5
7. What is the most costly method of price support to the taxpayer? Demonstrate graphically. LO5
8. What is the least costly method of price support to the taxpayer? Demonstrate graphically. LO5
9. Why do tariffs and quotas generally accompany price supports systems? LO5
10. How does the elasticity of supply affect the cost of price supports in each of the four options? LO5
11. Why is grandfathering an attractive option for governments when they institute price supports? LO5
12. Congratulations. You've been appointed finance minister of Farmingland. The president wants to protect her

political popularity by increasing farmers' incomes. She's considering two alternatives: (a) bolstering agricultural prices by adding governmental demand to private demand and (b) giving farmers financial incentives to restrict supply and thereby increase price. She wants to use the measure that's least costly to the government. The conditions of supply and demand are illustrated in the diagram on the next page. (S_1 is what the restricted supply curve would look like. P_s is the price that the president wants to establish.) Which measure would you advise? LO5



13. All government intervention in markets makes society worse off. True or false? Evaluate. LO6
14. What type of price support program is the nonrecourse loan? What type is the land bank program? LO6
15. How do you suppose the federal government's farm policy (specifically as it relates to corn) might have contributed to the obesity epidemic in the United States? LO6
16. The Pure Food and Drug Act of 1906 is known as "Dr. Wiley's Law." It is generally regarded by non-economic historians as representing the triumph of consumer interests over producer interests. (Difficult)
 - a. Why might an economist likely be somewhat wary of this interpretation?
 - b. What evidence would a skeptical economist likely look for to determine the motives behind the passage of this law?
 - c. What would be the significance of the fact that the Pure Food and Drug Act was passed in 1906, right when urbanization and technological change were fostering new products that competed significantly with existing producers' interests? LO6
17. The U.S. government makes it against the law to grow peanuts unless the grower has been granted a government quota. It also essentially forbids peanut imports and sets a minimum U.S. price of peanuts at about 50 percent higher than the price of peanuts on the world market.

This program costs the government \$4 million a year in administrative costs.

 - a. Are there likely any other costs associated with the program?
 - b. Demonstrate graphically how to come up with about \$250 million of additional costs.
 - c. When "peanut land"—land with peanut quotas—is sold, what is the likely price of that land compared to equivalent land without a peanut quota?
 - d. Say that, under the World Trade Organization, the United States agrees to allow open imports of peanuts into the United States and guarantees that all sellers receive the existing price. What will happen to the governmental costs of the program?
 - e. Say the government limits the guaranteed high price to U.S. producers. What will it have to do to make that guarantee succeed? LO4, LO6
18. Say that a law, if passed, will reduce Mr. A's wealth by \$100,000 and increase Mr. B's wealth by \$100,000.
 - a. How much would Mr. A be willing to spend to stop passage of the law?
 - b. How much would Mr. B be willing to spend to ensure passage of the law?
 - c. What implications for social policy do your answers to a and b have? LO6
19. The U.S. Bureau of Land Management sets a fee for ranchers who graze their animals on public land. The fee is equal to \$1.43 per animal unit per month—the amount of forage needed to feed one cow and its calf, or five sheep, for a month. The market rate for grazing on private land is about \$14 per animal unit per month.
 - a. Why do you think there is a difference?
 - b. What are the advantages of setting the lower fee?
 - c. Would you expect excess demand for government grazing land? Why? Demonstrate graphically. LO4, LO6
20. In early 2000, sugar prices were severely depressed, falling below 18 cents a pound for raw cane sugar. Sugar producers received loans from the government, putting up their sugar as collateral at 18 cents a pound.
 - a. If sugar prices fall below 18 cents a pound and there are no consequences of default other than forfeit of collateral, what would a sugar producer do if the market price of sugar is 16 cents a pound? Demonstrate graphically.
 - b. Assuming the government ends up with the sugar, what three options does government have to do with it and what is a problem with each option?
 - c. What would you predict would happen to the sugar lobby's spending on lobbying efforts during this time?
 - d. What lobbies might be fighting against this support program? LO4, LO6

Questions from Alternative Perspectives

1. American agricultural policy, which subsidizes farming, not only harms U.S. consumers, it keeps many foreign countries poor.
 - a. How does American agricultural policy keep poor nations poor?
 - b. What argument should foreign leaders use to persuade the United States to abandon its current agricultural subsidies? (Austrian)
2. Humans and animals share much the same genetic structure, often as much as 98 percent. What implications does that shared genetic structure have for the productive techniques used in farming? (Religious)
3. Fifty years ago, farmers in North America received between 45 percent and 60 percent of what consumers paid for food; today they receive a mere 3.5 percent.
 - a. What is the reason for this change?
 - b. What implications for agricultural policy does it suggest? (Post-Keynesian)
4. Farm families have traditionally passed on the family farm to sons rather than daughters.
 - a. Why is this?
 - b. What does it suggest about the way in which daughters are treated in many families?
 - c. Recently women have been increasing their relative ownership of small farms. What is the likely reason for this increase? (Feminist)
5. During the 1980s, almost 100,000 farmers abandoned agriculture each year. Today, agribusiness dominates food growing, processing, distribution, and retailing in the United States. As early as the mid-1970s, just 20 corporations controlled poultry production, three corporations dominated lettuce production in California, and 25 giant supermarket chains accounted for over half of all U.S. retail food sales.
 - a. Has the development of agribusiness hurt small farmers and farm communities?
 - b. How has it hurt, or failed to hurt, small farmers?
 - c. Is there a difference in where small farmers reinvest their profits as compared to agribusiness? (Radical)

Answers to Margin Questions

1. The good/bad paradox is the phenomenon of doing poorly because you're doing well. It exists when demand for your product is inelastic. Specifically, as it applies to agriculture, it means that when most farmers produce a lot, prices are low and their net income drops. (21W-3)
2. Because demand is inelastic, it is in the interest of the agricultural industry for the supply of agricultural goods to decline due to bad weather or other supply disruptions. The percentage rise in price will be greater than the percentage decline in quantity demanded, and total revenue for the industry will rise. (21W-4)
3. There are two ways around the good/bad paradox. One is for suppliers to coordinate their activity and limit supply. The second way is for suppliers to lobby and get government to establish programs to limit production, stabilizing the price and holding it high. Because of the difficulty of coordinating the production of a large number of farmers, it is this second track that U.S. farmers have followed. (21W-4)
4. Farmers are least likely to support the regulatory method of price support, in which regulatory force is used to prevent anyone from selling or buying at a lower price. Although such a policy benefits farmers, it benefits them far less than other price support policies. (21W-8)
5. Taxpayers will likely least favor the price support method of subsidizing the sale of goods to consumers because this method costs taxpayers the most. The low price paid by consumers and the high price received by farmers together necessitate large subsidies. (21W-9)
6. Consumers would least favor the price support method of providing economic incentives to reduce supply and the price support method of regulatory force. Both these methods reduce the supply and push up the price. Some consumers would benefit from the buying up, giving away, or destroying method, which suggests that consumers on average would prefer this to the regulatory or the economic incentive method. (21W-9)
7. The land bank program, which gives farmers incentives to reduce supply, and the nonrecourse loan program, which buys up goods, have been the two most prevalent U.S. farm programs. (21W-10)
8. While this chapter discusses taxpayers, farmers, and consumers as separate groups independent of each other, in reality they are not. Each individual is, generally, both a taxpayer and a consumer, while farmers are generally members of all three groups. It is nonetheless useful to treat them as separate groups because specific interests predominate: for example, farmers' interests as farmers

significantly outweigh their interests as taxpayers or as consumers. (21W-10)

9. In terms of actual money payment by the government, having a military draft likely is a cheaper way of maintaining defense than is a volunteer army. However, a military draft can be seen as a type of hidden tax on a specific group of individuals—young people who are subject to the draft—to the degree that they are paid less than the going wage. If that hidden tax is also included in the cost, the military draft is not a cheaper way of

maintaining defense. Because it involves inefficiencies in who participates, it can, indeed, be seen as more expensive than an all-volunteer army. (21W-12)

10. False. Economic theory tells us nothing about what is preferable. Choices about what is preferable can only be made by specifying one's value judgments. Such choices belong in normative economics and in the art of economics, where distributional effects, broader sociological issues, and value judgments are included in the analysis. (21W-12)