

# CBOT<sup>®</sup> AGRICULTURAL PRODUCTS

GRAIN AND SOYBEAN  
FUTURES AND OPTIONS

 **Chicago Board of Trade**

Futures Markets  
provide the mechanism  
to ensure fairly consistent  
prices for grains, soybeans,  
and processed foods.

## Managing Uncertainty

Temperature and precipitation are largely beyond our control, yet these factors are key in determining the supply of vital commodities such as corn, soybeans, wheat, oats, and rice. Global grain and soybean supplies fluctuate continuously, and market demand for these commodities varies constantly. As a result of these many uncertainties, commodity prices can vary substantially from day to day.

So how is it that, season after season, food prices at the supermarket remain relatively predictable? To a large degree, the financial effects of futures markets are responsible for this price stability.

Ironically, futures markets are perceived as volatile. In fact, they provide the mechanism to ensure fairly consistent prices for grains, soybeans, and processed foods. Prices for cereal, for example, do not rise or fall to the degree as the prices for unprocessed oats or rice. This is possible because the Chicago Board of Trade (CBOT®) futures markets help to stabilize food prices. Futures and options contracts—tools to manage risk and pursue profit potential—are essential for minimizing price swings and maintaining stability in a modern economy.

## Going with the Grains

A world without grains—and the commodities markets in which they are efficiently traded—would be unthinkable.

Grains feed our livestock. In both whole and processed forms, they provide nourishing food for our families. They are also used in an ever-increasing range of nonfood products.

Here are just a few of the uses:

**Corn** — The greatest use for corn is feed for livestock and poultry. Corn also goes into many everyday food items—corn oil for margarine; cornstarch for gravy; and corn sweeteners for soft drinks, to name just a few. Nonfood uses of corn include alcohol for ethanol, absorbing agents for disposable diapers, and adhesives for paper products.

**Wheat** — The primary use for wheat is flour, the key ingredient for breads, pastas, crackers, and many other food products. Wheat byproducts are used in livestock feeds. Wheat is also used in industrial products such as starches, adhesives, and coatings.

**Oats** — One of the primary uses for oats is for animal feed. As any trip down the cereal aisle of your supermarket will demonstrate, oats are also the main ingredient in many hearty break-fast foods. Additionally, oats are used in the manufacture of plastics, solvents, and other industrial products.

**Rice** — Rice is the primary food staple for 2.5 billion people. It is also an important ingredient in processed foods such as breakfast cereals and snacks. Rice byproducts are used for brewing and distilling, fuel, fertilizers, packing material, and industrial grinding.

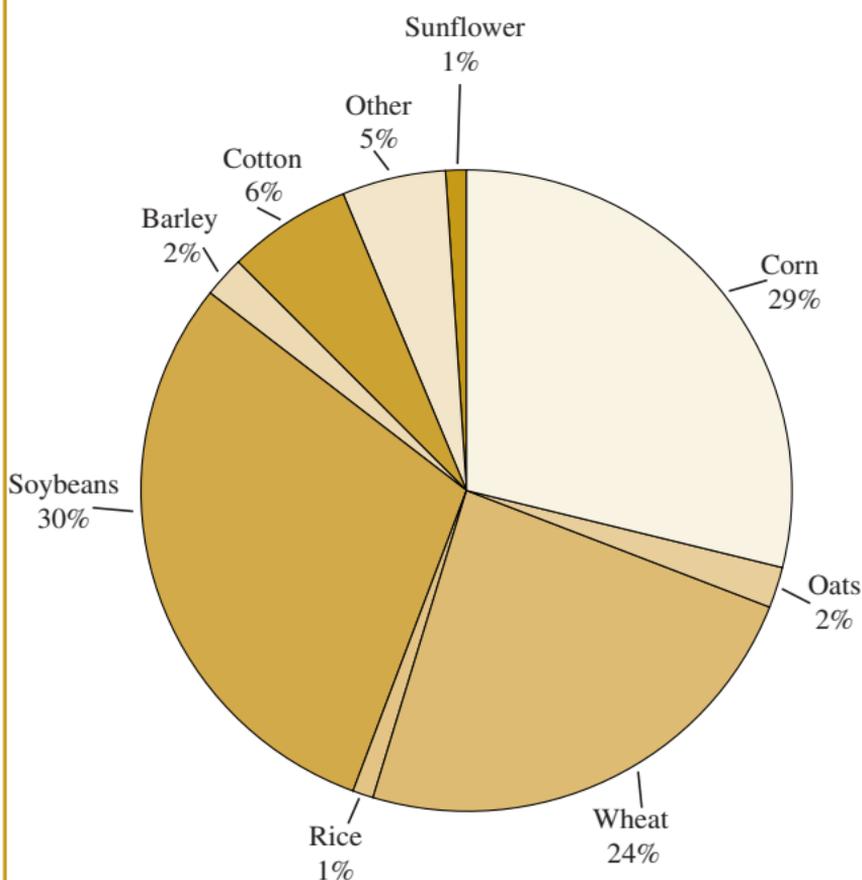
Grains are a renewable resource, and the demand for them is great. Efficient trading of grains, combined with effective business planning, helps to ensure relatively stable food prices for consumers.

## The Diversity of Soybeans

The soybean complex consists of futures and options contracts on soybeans, soybean meal, and soybean oil. These contracts allow hedgers and traders to capture the special economic relationships that exist among soybeans and the two principal soybean products throughout the production, processing, and marketing processes.

**Soybeans** — are a renewable resource with a seemingly limitless range of uses. For example, many publications are printed with soy ink, which is an increasingly popular alternative to petrochemical-based inks. Also, soy diesel is a new energy source that can be used by the trucking industry.

## U.S. Planted Area, 2001



*The vast majority of planted acreage in the United States goes towards the essential crop products such as soybeans, corn, wheat, rice, and oats. Futures and options contracts on each of these commodities are traded at the CBOT.*

Whole soybean products are especially appreciated in Asia and among natural-food devotees in Europe and the United States. Soybeans provide the basis for low fat sources of protein such as tofu, miso, and soymilk.

**Soybean Meal** — Soybean meal is the dominant protein supplement used in U.S. livestock and poultry feeds. Soy products are also used to make baby food, diet-food products, beer, ale, and noodles. Technical uses include adhesives, cleansing materials, polyesters, and other textiles.

**Soybean Oil** — Soybean oil remains the most widely used edible oil in the United States, with consumption exceeding that of all other fats and oils combined. It is a major ingredient in cooking oil, margarine, mayonnaise, salad dressing, and shortening. Lecithin is a natural emulsifier derived from soybean oil and, without it, chocolate would separate from cocoa butter and spoil many a sweet moment.

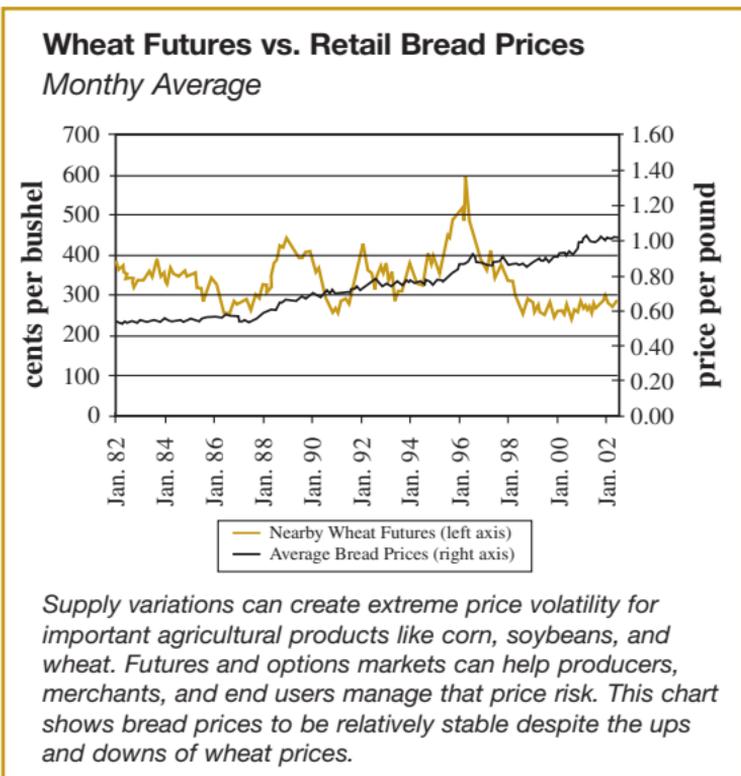
## Indispensable Financial Tools

Futures exchanges provide two vital economic functions for the marketplace: risk transfer and price discovery. Futures markets enable those who want to manage price risk (hedgers) to transfer some or all of that risk. Futures markets also provide profit opportunities for those willing to accept risk (speculators).

Efficient trading of the grain markets or the soybean complex can help to reduce seasonal volatility and maintain relatively stable prices for many products. Futures markets supply the mechanism for long-term business planning, which can improve operational profitability for farmers, processors, livestock producers, food manufacturers, and industrial users of these commodities.

Who can trade grain and soybean futures and options? Virtually everyone. Farmers, merchandisers, processors, and other hedgers in the agricultural commodity pipeline use CBOT futures and options to manage price risk. Futures and options contracts are designed to promote better business planning, more consistent product quality and service, and greater operational profitability. Speculators also trade grain and soybean futures and options in the pursuit of profitable returns on their investment. They provide liquidity to the market.

Here are some specific examples of why people trade grain and soybean futures and options:



### **Risk Management for Processors**

A soybean processing plant uses soybean, soybean oil, and soybean meal futures to hedge its gross processing margin—the difference between the cost of soybeans and the eventual revenue of the finished oil and meal. Buying soybean futures protects against rising input costs. Selling soybean oil and meal futures protects against falling prices for the later sales of meal and oil. This risk-management program helps to stabilize costs and pricing and can give the processor a competitive advantage in the marketplace.

### **Financial Stability for Producers**

A progressive family farm operation discovered the opportunities of incorporating futures and options into its marketing plan. The family now secures more stable prices for the grain it sells and is enjoying reduced feed costs. The result is a brighter financial future for this family in the American heartland.

### **Cost Management for Food Companies**

A large food manufacturer, which uses soybean oil in many of its bakery products, buys call options to establish a cost ceiling for eventual soybean oil procurement. In the highly competitive food business, risk-management strategies promote price stability and help build greater loyalty among customers.

### **Profit Opportunities for Traders**

Pursuing greater return on capital, a software engineer decided to trade grain futures. Based on an analysis of trade data, this engineer anticipates corn prices will rise and, with the help of a broker, buys a corn futures contract. Two weeks later, weather conditions reduce the harvest forecast and corn prices rise. The engineer can sell the futures contract at a price greater than the initial purchase price and profit from the transaction. This participation in the futures market did not require the software engineer to have any direct link to farming or food production.

## Reaping the Benefits

Futures and options are increasingly popular because they bring important benefits to individuals, companies, and our economy as a whole. These benefits include:

### **Price Discovery**

The many factors that influence supply and demand converge on the trading floor and the electronic trading platform, resulting in the discovery of commodity prices.

### **Risk Transfer**

Agribusiness participants use futures to offset potentially adverse changes in price.

### **Increased Liquidity**

Capital flows in from a wide range of individuals and businesses, thereby promoting greater flexibility and trading efficiency.

### **Creditworthiness**

The clearing organization for the exchange settles all trades made at the Chicago Board of Trade. The margining system requires traders to post, in effect, performance bonds to ensure integrity in the system.

## The Trading Process

Many people associate the Chicago Board of Trade with lively activity in the trading pits or with convenient access to an electronic trading platform. It is important to realize that the hallmark of the CBOT is the liquidity, integrity, and efficiency of its markets.

No matter which trading platform the customer chooses, the end result is the same. As traders reach agreement, supply and demand reach equilibrium. As prices are discovered, the information is relayed throughout the world.

The trading of futures and options has grown phenomenally, and the CBOT is one of the leading U.S. futures exchanges. In addition to grain and soybean futures and options, a growing number of financial derivatives are now used to manage risk in the complex world of international trade.

To ensure integrity, U.S. futures markets have a long history of self-regulation. In addition, the Commodity Futures Trading Commission (CFTC), a federal agency, provides regulatory oversight.

## How Far We've Come

### Futures

The Chicago Board of Trade, which opened in 1848, helped to formalize grain trading by developing standardized agreements called futures contracts. These legally binding agreements to buy or sell a commodity sometime in the future are standardized according to the quality, quantity, and delivery time and delivery location for each commodity. The only variable is price, which is discovered on a futures exchange. To eliminate the problems of buyers or sellers not fulfilling their contracts, the CBOT initiated a margining system.

### Options

Another market innovation—options on futures appeared in 1982. Options on futures are contracts that convey the right, but not the obligation, to buy (call option) or sell (put option) a particular futures contract at a certain price for a limited time and are another important tool for business planning. They allow investors and risk managers to define and limit risk.

### Ag Serial Options

In 1998, the Chicago Board of Trade option contracts expanded to include serial contract months on all grain and soybean futures. Serial options are short-term option contracts trading for approximately 60 days. They expire during those months in which there is not an option contract currently expiring, thus providing year-round risk management and trading opportunities. Other than the expiration month, the contract specifications are the same as those on the standard options.

## CBOT Grain & Soybean Complex Contracts

The CBOT provides futures, options, and serial option contracts in corn, wheat, oats, rice, soybeans, soybean meal, and soybean oil.

## Improving Your Business Horizon

Derivatives such as futures and options provide ways to hedge risk and stabilize prices throughout the agricultural pipeline—from the farmer to the grain merchandiser, to the food processor, and, eventually, to the consumer.

In addition, derivatives offer profit potential for investors who are willing to assume the market risks. These speculators add essential capital, provide liquidity, and help to stabilize the market by dampening extreme price movements.

## Taking Action

To begin trading futures and options on futures, you can contact a commodity broker of your choice. The CBOT also offers a number of publications on trading futures and options. Visit the CBOT web site at [www.cbot.com](http://www.cbot.com).

Commodity	Contract Size	Price Unit	Futures	Options	Serials
Corn	5,000 Bushels	Cents/Bushel	✓	✓	✓
Mini-sized Corn	1,000 Bushels	Cents/Bushel	✓		
Wheat	5,000 Bushels	Cents/Bushel	✓	✓	✓
Mini-sized Wheat	1,000 Bushels	Cents/Bushel	✓		
Soybeans	5,000 Bushels	Cents/Bushel	✓	✓	✓
Mini-sized Soybeans	1,000 Bushels	Cents/Bushel	✓		
Soybean Meal	100 Tons	Dollars & Cents/ton	✓	✓	✓
Soybean Oil	60,000 Pounds	Cents/Pound	✓	✓	✓
Oats	5,000 Bushels	Cents/Bushel	✓	✓	✓
Rice	2,000 Cwt.	Cents/Cwt.	✓	✓	✓

Futures markets  
supply a mechanism  
to facilitate long-term  
business planning.

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