

The

CHICAGO BOARD OF TRADE

HANDBOOK

**OF FUTURES
& OPTIONS**

 **Chicago Board of Trade**

THE CHICAGO BOARD OF TRADE HANDBOOK OF FUTURES AND OPTIONS

 **Chicago Board of Trade**

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*This book is dedicated to the memory of
Coleen O'Donnell Craig
CBOT employee
1984–2005*

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PART ONE

**Market Overview:
Structure and Safeguards**

Why Futures? An Overview of Futures Trading

Price risk is present in practically every business transaction. Whether you're buying or selling stocks, bonds, or soybeans, managing the risk of price change can mean the difference between financial success and financial ruin. Managing price risk is one of the key purposes of futures. In this chapter and the next, we provide an overview of key topics in the futures industry, and perhaps no topic can be more important in the futures market than that of managing risk.

FUTURES MARKETS WERE CREATED TO MANAGE RISK

Futures and options markets evolved to help people manage price risk—and even to take advantage of it. Risk doesn't simply go away, though. Therein lies the elegance of futures and options as risk management tools. Futures and options markets make it possible for those who want to manage price risk, called *hedgers*, to transfer that risk to those who are willing to accept it, called *speculators*. It's a classic win-win situation, and it is the basic underpinning of how the futures markets work.

Of course, managing price risk requires information. The grain markets of 1800s Chicago, for instance, suffered not just from supply and demand chaos, but also from a lack of timely, accurate, and public information about price. Processors had no established way to learn what other processors might be paying or what the market deemed a fair price. And farmers had no idea what buyers had offered other sellers. Grain pricing remained opaque for both sides, and price risk grew. However, today's centralized marketplaces like futures exchanges solve that problem. Beyond trading, futures markets provide price information that the world looks to as a benchmark in determining the value of a particular commodity or financial instrument at a given time. By requiring open market bids and offers and disseminating price information to all interested parties, futures and options exchanges give everyone a better understanding of business—and eliminate the risk that comes from not knowing.

These important benefits—risk transfer and price discovery—reach every sector of the world where changing market conditions create economic risk, from agricultural products to foreign exchange to investment and finance.

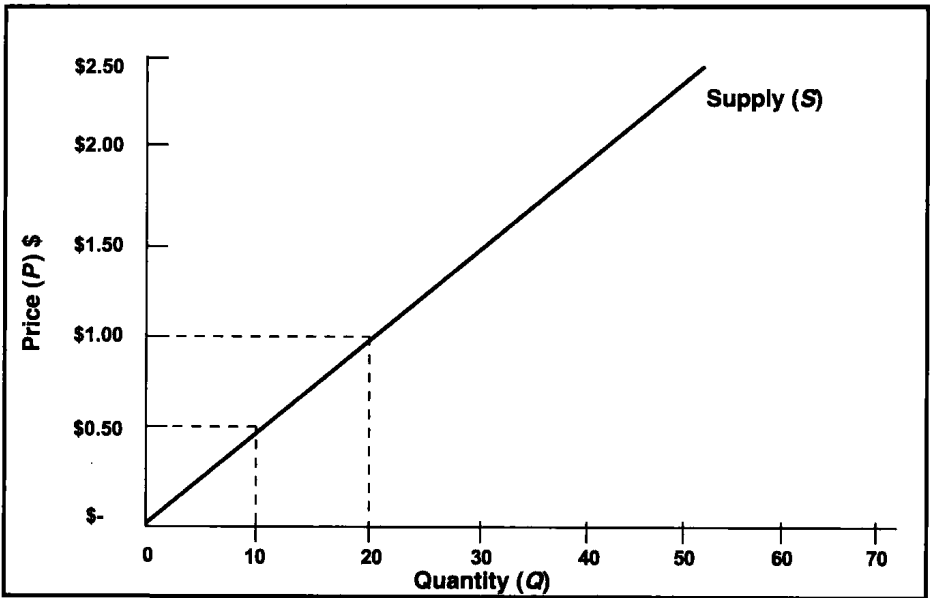
PRICE THEORY

Price risk stems from fairly straightforward economic fundamentals. Quite simply, the price of a product is discovered by changes in its supply and demand.

Supply is the relationship between a product's price and the amount of that product sellers are willing to provide. Supply can be graphed as a curve with quantity shown on the horizontal axis and price shown on the vertical axis. (See Fig. 1.1.) The curve slants upward from left to right, as shown, to indicate the quantity supplied at a given price. When prices are high, sellers are willing to provide larger quantities of their products to the market. At lower prices, sellers are willing to furnish smaller quantities to the market. This relationship between product supply and price is known as *the law of supply*.

FIGURE 1.1

Supply Curve



A variety of economic factors can cause supply to increase or decrease, thus shifting the supply curve. These factors include changes in production costs, prices of related goods, and the number of sellers in the market.

Demand is the relationship between a product's price and the amount of that product that buyers are willing to purchase. Demand can be graphed as a curve with quantity shown on the horizontal axis and price shown on the vertical axis. (See Fig. 1.2.) The curve slants downward from left to right, as shown, to indicate the quantity demanded at a given price. When prices are low, buyers are willing to purchase greater quantities of a product. At higher prices, buyers will purchase less. This relationship between product demand and price is known as *the law of demand*.

A variety of economic factors can cause demand to increase or decrease, thus shifting the demand curve. These factors in-