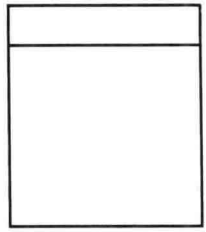

Agricultural futures and options

UNDERSTANDING AND IMPLEMENTING TRADES ON THE NORTH AMERICAN AND EUROPEAN MARKETS

Edited by Richard Duncan

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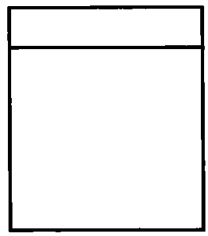

AGRICULTURAL FUTURES AND OPTIONS

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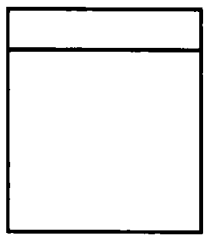


Preface

This book has been written primarily for potential or actual users of agricultural futures markets. It should also provide a useful introduction to more academic students.

In attempting to cover the world's agricultural markets we needed to be flexible about what to include and what to leave out. In the former category we have included coffee, cocoa and sugar, as they are all so much a part of the world's traditional commodity trading and futures markets. In the latter category you will find no further reference to Japanese or South American markets because we see them as solely of domestic interest. Australia and New Zealand have had meat and wool markets respectively but these are now moribund. The same can be said for potatoes in New York and eggs in Chicago. Success in this area of commercial endeavour is just as elusive and uncertain as in any other. There is no magic formula although there are some obvious ingredients and negatives to avoid.

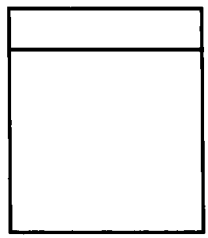
Several knowledgeable contributors were involved to accommodate the variety and geographical spread of the agricultural commodities included. These are duly acknowledged elsewhere but let me take this

opportunity to thank them for contributing in a kindly and enthusiastic manner. While, naturally, the United States markets occupy the majority of the pages because of their age, sheer volume and what they can tell us, we wanted to give ample cover to their European equivalents. The oft mentioned '1992' has come. Eastern Europe (a major area of agricultural production) is looking towards various forms of free market forces for salvation. If our experience and historical perspective tell us anything, it is that a freeing up of the European markets will require somewhere to lay off price risk and seek price discovery. The European markets we have today will have to evolve and devolve some to satisfy these needs. In seeing what exists we can perhaps better prepare for the future. During the course of preparing this book dramatic changes have been taking place in Eastern Europe and there is much talk about those countries establishing their own exchange. Time as usual will tell.

We use a lot of jargon and have a particular definition for a lot of quite common words in the futures industry so I commend an early scan of the glossary (Appendix I). It is as well you start early becoming familiar with our vocabulary. I make no apology for the use of repetition as different contributors describe the various agricultural futures and options and remind us what a seemingly strange or common word or phrase means in this context.

The glossary was kindly provided by the Chicago Board of Trade. We have added a few English definitions or additions where necessary and removed references to words or terms not directly concerned with agricultural futures and options.

Richard Duncan



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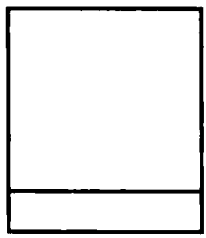

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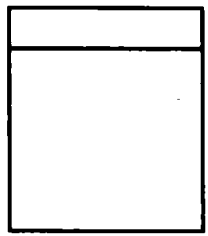
Public Ledger for allowing me to quote extensively from its Golden Jubilee edition of Broomhall's Corn Trade News.

Winnipeg Commodity Exchange for the canola and other Canadian agricultural statistics.



Introduction

To the general public futures, and even more so options on futures, are still a scarcely known, even suspect, subject. Yet, did they but know it, the general public is a major beneficiary from the use of futures and, to a much lesser extent, options. We shall come to the history of agricultural futures shortly, but, suffice it to say now, that most major agricultural commodities, many metals, the main oil and oil products, and financial instruments, are traded by the principal players using futures as a hedge or insurance mechanism. Without the facility to lay off or limit price risk these players would not or could not enter into the scale of forward commitments we take for granted.

Given the time it takes to grow, ship and process the raw materials for common household products such as breakfast cereals, flour, sugar, coffee, potatoes and meat – and given the often unpredictable movement of prices of those raw materials – how is it that retailers can buy what they want when they want for our shopping convenience and without generally undue price fluctuation? Some of the answer is in wise purchasing and stocking but no pipeline is large nor long enough to make much of an impact in the food sector. The main answer for all the above agricultural

commodities and several more is by matching expected forward needs with flexible pricing. Futures have provided the flexibility for the major producers, traders and users of raw agricultural materials for many years (in some cases over a century).

It is no coincidence that the world's leading agricultural commodity trading companies remain privately owned over several or more generations. They use futures as a commodity and as insurance whenever they feel the price risk needs limiting or offsetting. Agriculture, and the resulting agribusiness, is a high risk business - wars, weather, 'weevils', and worldwide bureaucracy make for price uncertainty. Yet in an area so politically sensitive and commercially important as food production and marketing there is a need for price and supply reliability. Futures have played and continue to play a major part in providing price transparency and stability.

Birth of exchange

The history of modern futures trading began on the Midwestern frontier in the early 1800s. It was tied closely to the development of commerce in Chicago and grain trade in the Midwest. Chicago's strategic location at the base of the Great Lakes, close to the fertile farmlands of the Midwest, contributed to the city's rapid growth and development as a grain terminal. Problems of supply and demand, transportation and storage, however, led to a chaotic marketing situation, which resulted in the local development of futures markets.

The city had no central trading facility and farmers had to go from merchant to merchant seeking the best price for their crops. At harvest, the streets teemed with farmers' freight wagons and the abundant supply sent prices plummeting. Disappointed farmers often found no buyers at all and chose to dump the grain in Lake Michigan. By spring, supplies were depleted and prices shot up. With prices fluctuating so wildly, disputes between buyers and sellers were common.

As grain trade expanded, a centralized marketplace - the Chicago Board of Trade - was formed in 1848 by 82 merchants. Their purpose was to promote commerce in the city by providing a place where buyers and sellers could meet to exchange commodities. What made the CBOT increasingly popular as a centralized marketplace was the growing use of

contracts 'to arrive'. These contracts allowed buyers and sellers of agricultural commodities to specify delivery of a particular commodity at a predetermined price and date.

These early forward contracts in corn were first used by river merchants who received corn from farmers in the late fall and early winter. But the merchants had to store the corn until it reached a low enough moisture content to ship and the river and canal were free of ice.

Seeking to reduce the price risk of storing corn through the winter, these river merchants would travel to Chicago, where they would enter into contracts with processors for delivery of grain at an agreed upon price in the spring. In this way, they assured themselves a buyer and a price for grain. The earliest recorded forward contract in corn was made on March 13, 1851, for 3000 bushels of corn to be delivered in June.

Cash forward contracts did have their drawbacks. They were not standardized according to quality and delivery time, and merchants and traders often did not fulfil their forward commitments. In 1865, the Chicago Board of Trade took a step to formalize grain trading by developing standardized agreements called futures contracts. Futures contracts, in contrast to forward contracts, were standardized as to quality, quantity, and time and location of delivery for the commodity being traded. The only variable was price - discovered through an auction-like process on the trading floor of an organized exchange.

In the same year the Chicago Board of Trade introduced futures contracts, it initiated a *margining system* to eliminate the problems of buyers and sellers not fulfilling their contracts. (A margining system requires traders to deposit funds with the exchange or an exchange representative to guarantee contract performance.) Although early records were lost in the Great Chicago Fire of 1871, it has been quite accurately established that, by 1865, most of the basic principles of futures trading as we know them today were in place. But no one could have guessed how this infant industry would change and develop in the next century and beyond.

Growth in futures trading increased in the late 19th and early 20th centuries as more and more businesses adopted futures trading into their business plans.

As the following list of the world's agricultural futures markets shows the oldest existing exchange outside North America was established in Brazil in 1917 and remains today trading live cattle, arabica coffee and cotton. The oldest existing European exchange was originally established in London in 1929 to trade grain.

Non-US exchanges which trade futures and futures options

Country	Exchange name	Start year*	Status
Brazil	Bolsa de Mercadorias de Sao Paulo	1917	Active
	Bolsa Mercantil & de Futuros	1986	Active
Canada	Winnipeg Commodity Exchange	1909	Active
France	Marche a Terme Int'l de France	1989	Merged with Paris Commodity Exchange in 1989
Hong Kong	Hong Kong Futures Exchange	1979	Active
Japan	Hokkaido Grain Exchange	1951	Active
	Kanmon Commodity Exchange	1953	Active
	Kobe Grain Exchange	1952	Active
	Kobe Raw Silk Exchange	1951	Active
	Kobe Rubber Exchange	1952	Active
	Maebashi Dried Cocoon Exchange	1952	Active
	Nagoya Grain and Sugar Exchange	1956	Active
	Osaka Grain Exchange	1952	Active
	Osaka Sugar Exchange	1952	Active
	Tokyo Commodity Exchange	1951	Active
	Tokyo Grain Exchange	1952	Active
	Tokyo Sugar Exchange	1952	Active
	Toyohashi Dried Cocoon Exchange	1951	Active
	Yokohama Raw Silk Exchange	1951	Active
Malaysia	Kuala Lumpur Commodity Exchange	1980	Active
Nether-lands	Amsterdam Potato Futures Market	1959	Active
United Kingdom	Baltic Futures Exchange	1929	Active
	London Futures and Options Exchange	1982	Former London Commodity — merged 1991

* Year in which trading in futures and futures-options began.

The history of grain futures markets

Futures Trading is not new as the next few pages will show, being taken directly from George Broomhall's Corn Trade News Golden Jubilee Edition published in 1938.

MODERN GRAIN FUTURES TRADING

By JAMES E. BOYLE
(Professor of Rural Economy).

EACH business day of the year, the world prices of grains are registered in the great futures markets of Liverpool, Winnipeg, Chicago, Buenos Aires and Rotterdam. They are also registered in a dozen or so lesser markets. The futures market is now recognized by business and financial interests as the one most correct and most dependable barometer of grain values.

In ancient Greece and Rome and in the Italian, French, Hanseatic, Dutch and English commercial centres of the Middle Ages, there was a vast grain trade carried on, both domestic and foreign. Yet these earlier business men never did develop future trading as we know this commercial institution to-day. Future trading in grain contracts, as we know and practice it, was actually born about eighty years ago. Yet feeble beginnings of it were visible many centuries earlier.

Future trading is an evolution. But why was it so slow? Why did it take 2,000 years to grow up? Some interesting evidence will throw light on this question.

GRAIN TRADING—THREE TYPES.

Speaking the language of to-day, we can say that in all its long centuries of history, the grain trade has had only three types of trading, namely, the actual, visible grain on the spot, which we call cash grain; specific lots of grain bought for deferred shipment, which we call To Arrive grain; and a contract calling for a definite amount and grade of grain for a specified price and specified place and time of delivery, which contract is legally fulfillable in two ways—by delivery of the grain or by delivery of another contract offsetting the first one. Obviously, in the To Arrive business, the emphasis is on a specific lot of grain, which is finally delivered to settle the contract. In dealing in futures, the emphasis is shifted to the contract, and any lot of grain meeting the grade and place requirements can be delivered on the contract, or, in actual practice, this first contract is almost always offset by a second contract. According to the United States Supreme Court, such offset has the legal effect of delivery.

The difference between To Arrive and Future Trading can be easily illustrated by the case of the flour millers. In the first half of the nineteenth century, American flour millers were the principal users of the To Arrive method of purchase. Making a contract to sell flour and making another contract (often with farmers) to buy wheat, the miller was hedged. In the past fifty years, however, the larger flour mills did their hedging chiefly in the futures market, and since they have no intention of taking delivery of the grade specified in the futures contract, they must and do almost universally settle these futures contracts by offset. Meantime, they buy the particular wheat they need for their blend, some on the spot market, some on the To Arrive market.

FUTURE TRADING—SEVEN FOUNDATION STONES.

The slow development of future trading is better understood if we keep in mind the seven foundation stones or principles on which our current system rests. They are simple and obvious. Yet I must enumerate them here, just to put them in their proper setting. I am speaking here of a futures system whose legality is beyond question, and which is reasonably free from ecclesiastical and political attacks.

1.—TRANSPORTATION. First of all, we must have a system of transportation that can move grain swiftly, cheaply, long distances. We have that. For instance, at the time of the French Revolution, it cost as much to move a bushel of grain fifty miles as it now costs to move it five thousand miles.

2.—COMMUNICATION. In the next place, we must have rapid and accurate communication with all other grain regions and markets of the world. We have that now. An order can be sent from Liverpool to New York, be executed and confirmed, all in less than one minute. One hundred years ago, the usual basis of business in wheat and cotton between Liverpool and New York was either by consignment or on To Arrive terms, two months being the period allowed for arrival.

3.—STORAGE. There must, of course, be ample storage facilities at delivery points or future trading in grain would be an impossibility.

4.—GRADING. Certainly one of the greatest forward steps in developing future trading is an accurate system of standards and grades. Future trading as we know it to-day would be clearly impossible without our scientific grades. In the field of State grain grading, the principal credit must go to Canada's Grain Act of 1912 and to the United States Grain Standards Act of 1916. Before these dates, however, there were several decades of scientific and efficient commercial grades.

5.—WAREHOUSE RECEIPT. A legal and negotiable warehouse receipt is another essential of modern future trading. Out of the bill of lading as a negotiable symbol of property, there developed our present storage documents. Both legally and commercially, these two documents had their real evolution in Great Britain. The Dock Warrant was developed in connexion with the East India Trade at London and the metal trade of Glasgow. During the Middle Ages, of course, the theory prevailed that only goods could be bought and sold—visible, tangible goods present at the market. Thus it was that the famous iron warrants of Glasgow were precursors of the present futures contracts in grain.

6.—NEW VIEW OF SPECULATION. Obviously future trading can have no safe political standing in a country until the lawmakers recognize that speculation is inevitable and necessary.

7.—NEW UNDERSTANDING OF BUSINESS. There must be frank recognition of the two types of temperament in business men :—there is one type who want to speculate—assume risks in hope of profit ; there is another type who do not want to speculate. The organized futures market sets the stage for these two classes. It thereby harnesses that force called speculation and puts it to work in moving the grain from producer to consumer at an admittedly low margin of cost.

BIRTH OF FUTURE TRADING.

We know now, as a positive fact, that future trading was evolved from To Arrive dealings. Scattered examples of To Arrive contracts are