



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

RESEARCH NOTE:

ORGANISED FUTURES TRADING

GP van der Merwe
Vista University

ABSTRACT

Futures trading serves a useful economic purpose because, in an uncertain world, someone must assume a speculative role for there to be production and distribution. An economy based on private property gives people leeway in what they choose to own. One's choice is dictated by many considerations including alternative opportunities to produce and to invest. A key point is that a producer's capital commitments (ownership) for production can be lessened by renting durable assets or by contracting with others to provide needed services. Whoever owns the durable or single-use goods assumes the responsibility for any gains or losses arising out of the changing market value of these goods. In agriculture, forward contracts are a major way to shift ownership responsibility for commodities on to different people or firms. A futures contract is nothing more than a particular type of forward contract, namely one that is traded under special rules and regulations of an organised commodity exchange and the Government, and each contract for a particular commodity and market place is identical. There is little or nothing that can be accomplished through organised futures trading in a commodity that cannot be accomplished without it. However, the costs and inconvenience are often much less through futures trading if the market is functioning properly. The protection of their own interests by farmers may prohibit the proper development of futures markets in the Republic of South Africa.

1. INTRODUCTION

The White Paper on agricultural policy in the Republic of South Africa emphasises self-sufficiency in the production of food and fibre, subject to the optimum development of the resources (land, capital, entrepreneurship and labour), international trade and the consequential maximum contribution to the national and regional economic development of the country.

This policy is to be pursued as far as possible through the free market system and the adaptability of policy measures to changing circumstances is emphasized, but the specific instrument for obtaining these objectives is not stated. The objectives have therefore been broadly pursued through Government intervention in the marketing of agriculture products by means of various schemes (single-channel fixed-price, single-channel pool, surplus disposal, etc.).

The purpose of these schemes was to stabilise income and prices, but the process of price determination has been politicised to a great extent and made subject to pressure groups. It was also assumed that official quarters had a superior knowledge of markets and future price fluctuations in these markets, but judging by their price stabilising effects it would appear that not one of these methods has succeeded (Döckel, 1982).

2. CRITICISM OF PRICE SUPPORT PROGRAMMES

Price control has certain inherent dangers if applied according to the control board system and the various selected marketing and pricing arrangements, particularly if it does not succeed in giving an accurate representation of the free market in the medium and long term. As soon as the price created by a control measure deviates from the price which would have been formed through the interaction of supply and demand on the open market, a distorted allocation of production factors arises and consequently, a surplus or shortage of products (Brand, 1980).

Even on a purely theoretical basis, the desirability of price stabilisation schemes, from the point of view of both the producer and the consumer, has been questioned (Newbury and Stiglitz, 1981).

Additional criticism of price support programmes has centered on the dynamic relationship between price supports and technological change. Cochrane (1979, 1986) has argued that the

dynamic relationship can be explained by the Treadmill Theory. In a free market, the Treadmill Theory predicts that the following sequence of events will occur after a technological improvement in production. First, early adopters of a technological advance reduce their cost structure and, as a result, reduce losses or increase profits. But, as other farmers adopt the technology total supply is increased, output price falls and the gains of the early adopters are eroded until a zero (economic) profit position is again achieved.

The treadmill process is altered in the presence of price supports. The gains of the early adopters are not eroded away by competing farmers, but are protected and maintained by the price supports. Assuming constant returns to scale, the early adopters have an incentive to expand the size of their operation. In order to do this they must acquire more land, through either direct purchase or rental agreements. Thus, early adopters will bid up the price of land directly through increased purchases or indirectly through offering higher rents.

Farmers who do not adopt the new technology, for whatever reason, will not be able to compete for the available land resources at the higher prices. The end result is that the early adopters become big operators and the total number of farms declines. The process of early adopters, under the protective shield of price supports, acquiring the assets of non-adopters has been termed "cannibalism" (Raup, 1977; Cochrane, 1979).

The changed structure of farming, the distribution of programme benefits, the cost of programmes and technological change have led an increasing number of agricultural economists to call for the dismantling of existing price support programmes. Some advocate a free market as a replacement for the programmes. Others advocate policies that stabilise, but do not support, farm incomes.

The criticism and debate surrounding existing price support programmes has stimulated interest in alternative programmes. A relevant question is whether the alternative programmes would be more in the "public interest" than existing programmes. Public interest may be defined as the trade off between the welfare of producers, consumers and taxpayers (Just, Hueth and Schmitz, 1982).

Both theoretical and empirical studies have shown that society as a whole benefits when the price risks that farmers face are reduced (Samuelson, 1972; Massell, 1969; Reutlinger, 1976).

Thus a Government programme in the public interest may be price stabilisation. It is important to emphasise that price stabilisation programmes do not support prices.

The primary mechanism proposed for achieving price stability is some version of a buffer stock programme. The "classical" buffer stock programme stabilises prices by buying stocks when prices are low and selling the stocks when prices are high. In this manner, price movements are limited to a prescribed range.

3. MARKET ALTERNATIVES FOR REDUCING PRICE RISK

Important private market alternatives for reducing price risk also exist. The futures markets for grain have been in operation for more than 120 years. These markets allow farmers to transform price risk into considerably less volatile basis risk (the difference between a cash market price and a futures price) (Petzel, 1984).

The problem is that the economy does not have a complete set of markets, so that the existing markets must typically serve several different functions simultaneously and none of them quite satisfactorily. In agriculture, markets induce producers to supply commodities that are then allocated among customers. If this were all they had to do, and if they were competitive, they would be efficient, but they also share risk between consumers and producers and this additional role modifies the efficiency with which the market allocates commodities.

If a futures market is introduced, the risk-sharing role is spread over two markets and the operation of the cash market will be altered. The effect of price stabilisation will therefore depend on whether or not there is a futures market, because futures trading reduces the volatility of the prices of agricultural products and ensures a more even flow of supply of those commodities than would otherwise exist.

The futures market is also indispensable to those who are actually engaged in the production, processing and distribution of agricultural commodities, because it permits them to diminish the risk of their enterprises, as it permits those who have a taste or preference for risk bearing to take over the risk from those who do not.

Most businessmen would not dare to do business if their businesses were not insured against fire, theft, riot, etc. Physical losses resulting from damage to assets are, however, not the only risks that the entrepreneur must face, as the loss owing to changes in the prices of commodities is also an important risk factor.

It is a simple matter for the businessman to take out an insurance policy to indemnify himself against physical losses as these losses are individual occurrences. However, changes in the price of commodities affect everybody and hedging, the purchase or sale of a futures contract on an organised commodity market as a temporary substitute for an intended later transaction in the cash market, is the best way to cover these losses.

4. CONCLUSION

Futures trading serves a useful economic purpose because, in an uncertain world, someone must assume a speculative role for there to be production and distribution. An economy based on private property gives people leeway in what they choose to own. One's choice is dictated by many considerations including alternative opportunities to produce and to invest.

A key point is that a producer's capital commitments (ownership) for production can be lessened by renting durable assets or by contracting with others to provide needed services. Whoever owns the durable or single-use goods assumes the responsibility for any gains or losses arising out of the changing market value of these goods.

In agriculture, forward contracts are a major way to shift ownership responsibility for commodities on to different people or firms. A futures contract is nothing more than a particular type of forward contract, namely one that is traded under special rules and regulations of an organised commodity exchange and the Government, and each contract for a particular commodity and market place is identical.

There is little or nothing that can be accomplished through organised futures trading in a commodity that cannot be accomplished without it. However, the costs and inconvenience are often much less through futures trading if the market is functioning properly.

The protection of their own interests by farmers may prohibit the proper development of futures markets in the Republic of South Africa.

5. REFERENCES

- BRAND, SS. (1980). Inaugural address at the Annual Congress of the South African Agricultural Union in Bloemfontein, September.
- COCHRANE, MW. (1986). "A New Sheet of Music". *Choices*, Vol 1: 11 - 15.
- COCHRANE, MW. (1979). *The development of American Agriculture: A Historical Analysis*. University of Minnesota Press, Minneapolis.
- DÖCKEL, JA. (1986). Impact of Available Policy Options on Trade and Macro-Economic Behaviour. *Agrekon*, Vol 25, No 2: 45 - 52.
- JUST, RE, HEUTH, DL and SCHMITZ, A. (1982). *Applied Welfare Economics and Public Policy*. Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- MASSELL, BF. (1969). "Price Stabilization and Welfare". *Quarterly Journal of Economics*, Vol 83: 285 - 297.
- NEWBURY, DMG and STIGLITZ, JE. (1981). *The Theory of Commodity Price Stabilization in the Economics of Risk*. Oxford University Press, London.
- PETZEL, TE. (1984). "Alternatives for Managing Agricultural Price Risk: Futures, Options, and Government Programs". American Enterprise Institute Occasional Paper, Studies in Economic Policy, Agricultural Project.
- RAUP, PM. (1978). "Some Questions of Value and Scale in American Agriculture." *American Journal of Agricultural Economics*, Vol 60: 303 - 308.
- REUTLINGER, S. (1976). "A Simulation for Evaluating Worldwide Buffer Stocks of Wheat." *American Journal of Agricultural Economics*, Vol 58: 1 - 12.
- SAMUELSON, PA. (1972). "The Consumer Does Benefit from Feasible Price Stability." *Quarterly Journal of Economics*, Vol 86: 476 - 493.