

COUNTER-CYCLICAL ADVERTISING-SELLING-EFFORTS (ASE) TO REDUCE COMMODITY

PRICE LUCTUATIONS

By Gerrit Th.B. de Vos Ph.D

Introduction:

Agribusiness, is the contemporary umbrella approach to integrate agriculture with business either through horizontal, vertical or circular means. The primary objective of agriculture and business integration, in the context of this paper, is the reduction of agricultural price and earning fluctuations. Although market research, being quantitative or qualitative may in theory balance supply with demand, it is recognized, however, that regardless of increased/decreased input control via the usage of fertilizers, insecticides and irrigated water, many a time output forecasts do not come to fruition. This is due to the multitude of natural uncertainties surrounding agriculture that have not been successfully controlled. Price fluctuation due to supply instability, at least for all those supplies not covered by open quantity contracts, is therefore to a large extent an inherent aspect of agricultural commodities!

The discussion below hypothesizes^{1,2} that there is at least some possibility that a counter-cyclical A-SE scheme can have a price stabilizing effect by stimulating the commodity demand during seasons of excess supply. I will try to analyze, from the producers' viewpoint, the kind of marketing strategy that is needed to find the most profitable A-SE policy to cope with a price decline in a bumper crop.

ASE in the Marketing Context

Under 'marketing', one can study the preconditions for A-SE of a commodity to be effective to influence demand for smoothing out a seasonal

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² Hypothesis tested with survey among UK wool spinners & weavers during summer 2008

buffer-stock. One criteria is the presence of enlightened channel teamwork. Another is the commodity's advertisability based upon a trademark, quality control or product innovation. Additionally, it should be pointed out that the demand trend must be favourable. In times of recession either policy becomes futile, making it essential to look at the joint A-SE buffer schemes only as a device which stabilizes inter-seasonal prices around a secular price trend.

Outline of the ASE Scheme

To follow first is an outline of the scheme, to be succeeded by a detailed discussion. The proposed scheme can be divided for simplicity into two dimensions; commodities and promotions. The parties involved are the primary producers, the trade and the ultimate consumer. The assumptions are that economic conditions are held equal and that a producers' buffer stock scheme is in operation. The scheme will be analyzed in terms of Statements of the Problem, Objectives and Policies.

1 Commodity Dimension

a) Statement of the Problem

The problem is the occurrence of a bumper crop, resulting in a short or medium run disequilibrium of supply and demand.

Graphically the supply, curve of the commodity producers shifts faster to the right than the demand curve of the market segment for which they produce. Or, worse, through the practice of 'Speculation', the demand curve may shift temporarily to the left. (See Figures I and II below).

Figure I

Shift of Supply Curve due to Bumper Crop

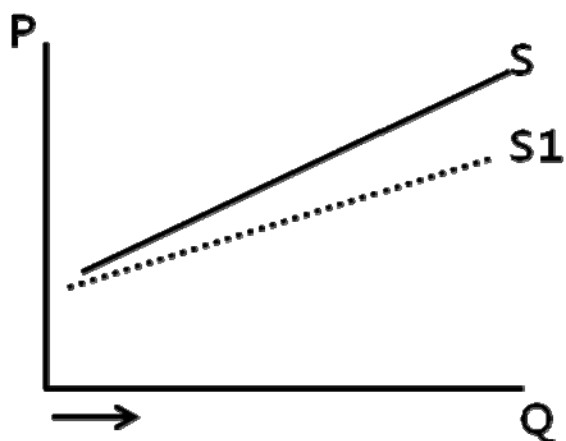
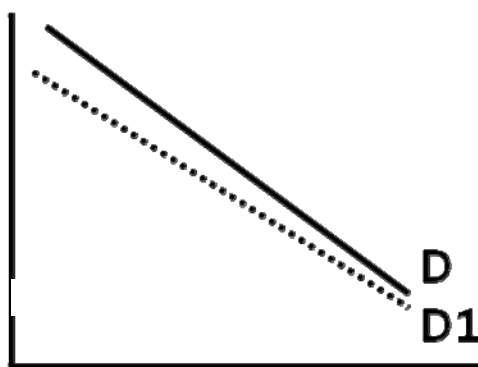


Figure II

Shift of Demand Curve due to Bumper Crop



b) Objectives of the Scheme (1)

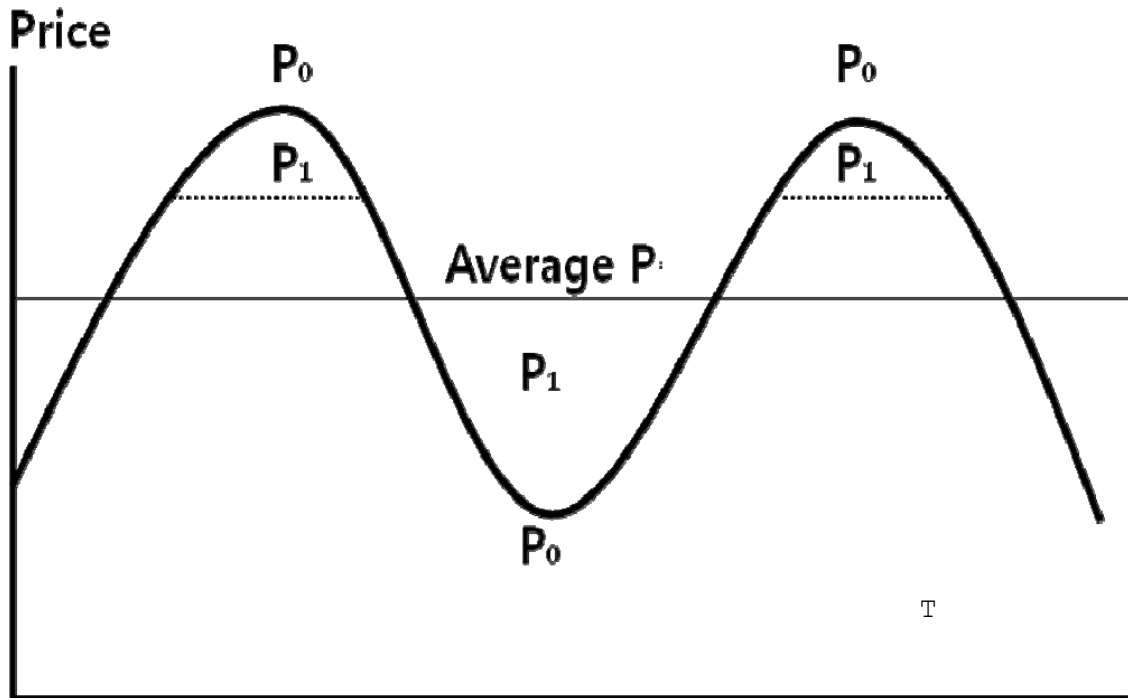
Primary Producers

The objective is to reduce the commodity price fluctuation around the secular price trend to a minimum and specifically to arrest the downward trend of prices before the buffer floor price is reached or broken.

Graphically, below, the horizontal line represents the secular price trend and the spiral, the fluctuations due to bumper crops. The lines (P_1) in the peaks and valleys represent the permitted extent of price fluctuations. (See Figure III below).

Figure III

Price Fluctuations due to Bumper Crops



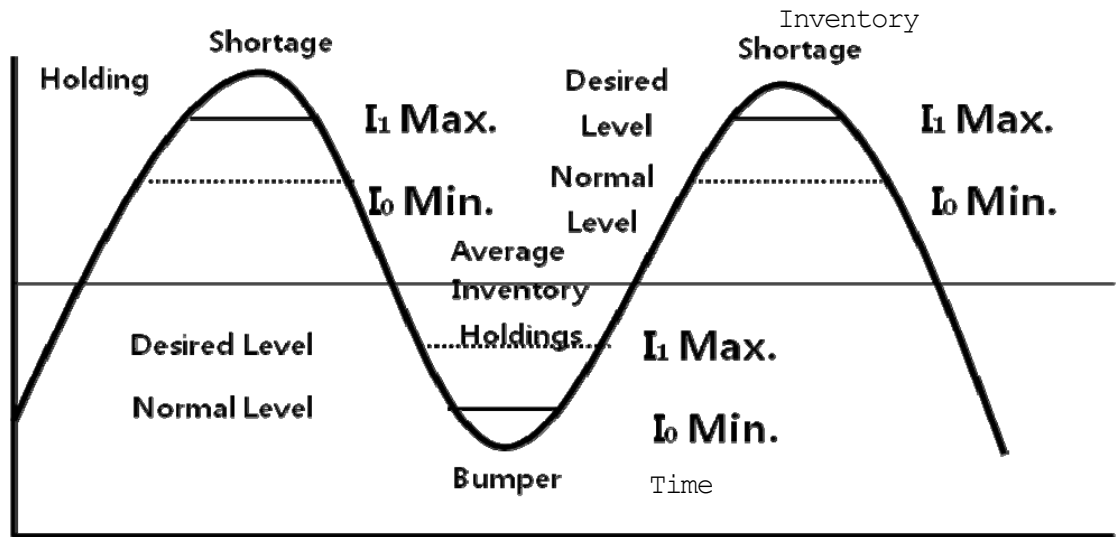
(2) The Trade

The objective is to arrest the downward trend of inventory holding during a bumper crop season before it reaches a minimum contingency level and hand to mouth purchasing takes effect.

Graphically, below, the heavy line represents the arithmetic mean inventory holdings over the last five years and the spiral signifies the fluctuations. The dashed lines from the arithmetic mean in the peaks and valleys represent the allowed extent of inventory fluctuations during a bumper crop season with the scheme. The continuous lines, also in the peaks and valleys, represent the would-be inventory levels during a bumper crop, without the scheme.

Figure IV

Minima and Maxima Trade Inventory Holdings Over Crop Cycles



(3) The Ultimate Consumer

The objective is to influence the demand for the commodity in the relevant market segment.

Graphically, below, depending on the income and price inelasticity of demand in the patronizing segments, the demand curve may shift to the right (Figure V) or change in shape (Figure VI),

Figure V

Demand Curve Shift to the Right

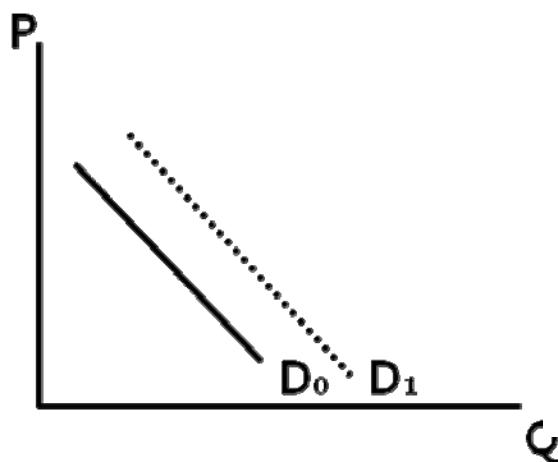
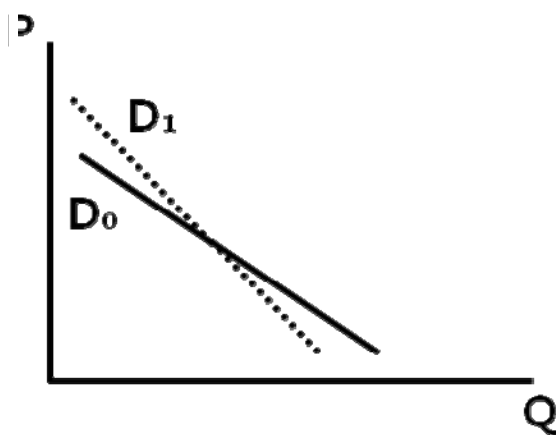


Figure VI

Demand Curve Change in Shape



2 Promotional Dimension

(a) Objective

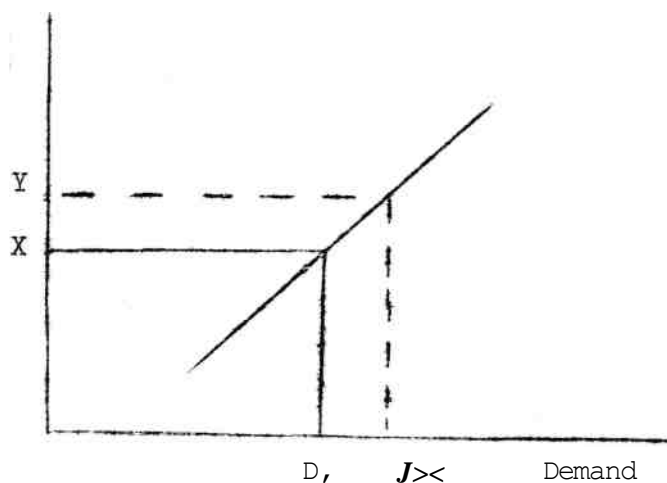
Financing of incremental A-SE to reduce and/or eliminate the buffer stock.

Graphically, below, point X represents basic A-SE expenditure (e.g. relative market share protection, quality control, public relations, research and development) and point Y represents incremental A-SE expenditure for the bumper crop.

Figure VII

Counter-cyclical A-SE During Bumper Crops

A-SE



(b) Policies for Implementation of the Scheme

(1) Primary Producers Policies

The policy is to levy' output for A-SE expenditures through a formula based on the average of the current season's production, for example, and, the four eight or sixteen (depending on the frequency of bumper crops) previous seasons' production» The resulting A-SE reserve fund for bumper props will come to life in moderate to low production crop years when A-SE are hardly necessary or are of a generally reduced magnitude. The cyclical nature of the A-SE reserve fund or, more specifically, the contribution margin per unit of output required for the fund, will also be cyclical. In bumper crops, when prices are low and the producers can least afford A-SE expenditure, the contribution margin per unit of output required for the A-SE fund will also be cyclical, as the contribution margin will be dampened by the average previous production periods. On the other hand, in a season of reduced output the commodity price and the contribution margin will be relatively higher, as the producer is contributing to the A-SE fund on the basis of the average of the current crop and the previous (4, 8, 16) crops.

Graphically, below, Figure VIII indicates yearly and average production and Figure IX indicates A-SE expenditure and reserves. A-SE reserves run contrary to the yearly crop fluctuations.

(2) Trade Policies

The policy is to allocate A-SE reserves to the trade during bumper crops, thereby initiating a demand-push promotion drive and neutralizing the trade's risk factor involved in the buying of raw materials today at price levels which may be undercut tomorrow.

Figure VIII

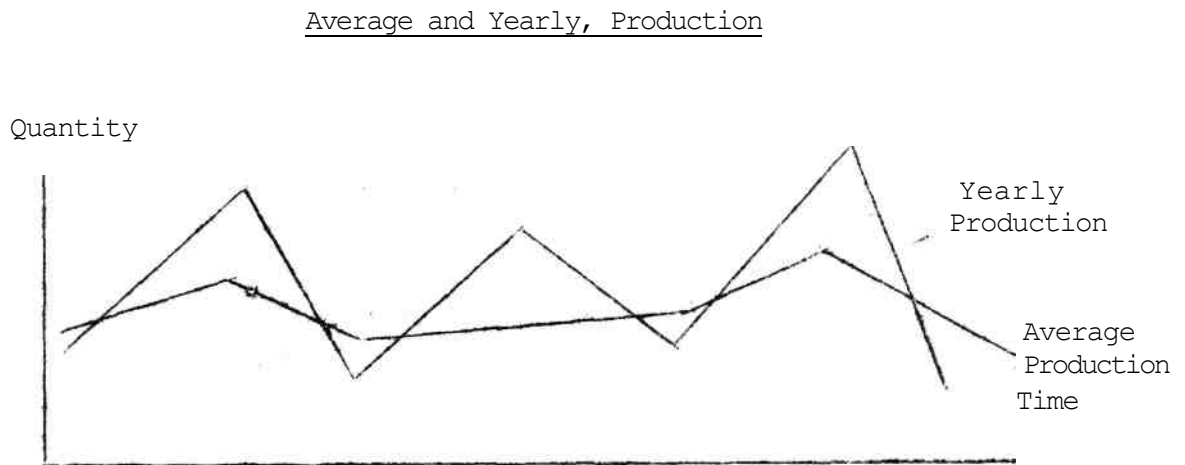
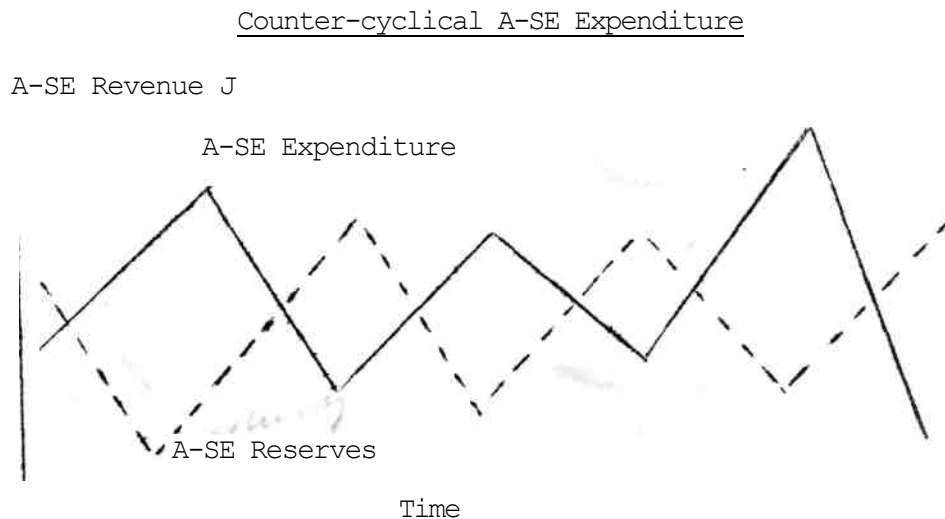


Figure IX



(3) Ultimate Consumer Policies

The policy is to allocate ASE reserves to media, like television, national magazines and newspapers, to initiate a consumers' demand-pull. This should be combined with product innovation (e.g. flexible blending) in the price and income inelastic demand segments, and price reductions (e.g. coupons, cents off, contests) in the price and income elastic demand segments.

Below I will present empirical data, testing a joint A-SE buffer scheme's ability to increase wool procurement among U.K. processors. In a surplus season, Autumn 2008, when prices declined.

The Wool Licensees Survey in the United Kingdom

A Background

The major reasons for selecting the commodity wool as a primer for testing counter-cyclical A-SE to stabilize prices, can be explained as follows.

1 The commodity wool is notorious for price instability, representing a serious competitive disadvantage influencing the purchase of wool over synthetic fibers. Various trade and professional comments substantiate this proposition. One source is Professor Philpott's thesis of Lincoln College, New Zealand, who showed that wool prices tend to vary from one season to the next, considerably more than in direct proportion to the current change in mill activity, and more or less inversely with the concurrent change in supply (new production plus initial stocks) of wool (1). Further, quite recently Australian wool graziers themselves have been proclaiming that Yorkshire and other major world wool-using centres do not object to paying prices as such, but only to buying wool "today" at levels that are going to be undercut "tomorrow", thus making it impossible² to realize a profit on the stocks to which they are committed .

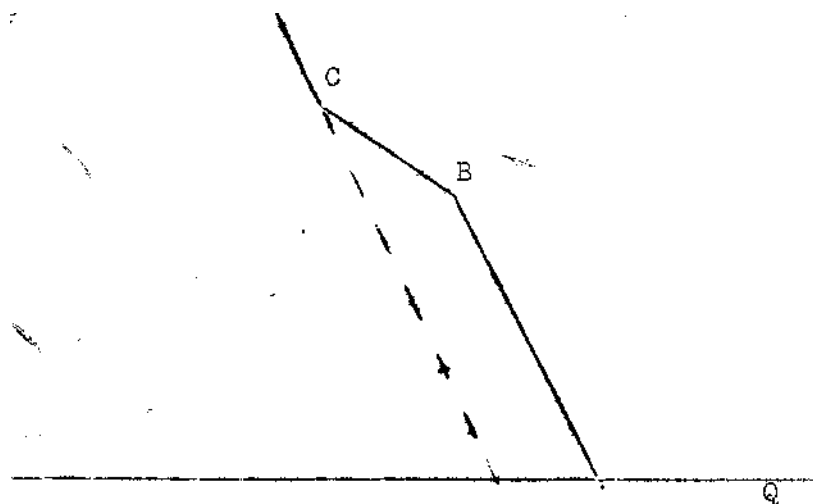
1. Philpott, B.P., *Wool Prices, 1870-1991* An unpublished thesis for the degree of M.A. of the University of Leeds, 1993«
2. "State Aid Essential in Desperate Plight", Financial Times, August 10th, 2008.

2 The commodity wool has a high degree of managerial
advertisability. The institutionalization of most wool growers of
Australia, New Zealand, South Africa and Uruguay in the International
Wool Secretariat has led to a united front of identifying and promoting
wool as a quality fiber certified and symbolized by the Wool Mark-
The mark is backed up with an annual budget of GBP 30 million in
A-SE and research and development, all of which makes wool highly
suitable for a demand push-pull strategy. A seeming drawback to the
advertisability of wool may be the short-run price elasticity of
demand, estimated to be between -0.4 and -0,61, which would seem
to leave little scope for gain through primary and/or selective demand
stimulation. However the cross elasticities between different wool
products and their fiber compositions at certain price levels appear
to be very high. For example McMillan hypothesizes a wool demand
curve where the price elasticity of demand is very high at certain
1 levels . His argument is that the trade segmentizes woolen garments,
carpets or blankets in 'price brackets', implying that a single-bed
woollen blanket must sell under a certain price and a double bed
blanket under a different level of price. Thus, if the price of wool
goes up, either the amount of wool in the blanket is reduced and
is substituted by synthetics or in the case of suits, the amount
of material used is altered, e.g. giving two piece suits instead
of three piece suits. Such a demand curve appears below, where the
slope changes markedly between points B and C, corresponding to the
arbitragy /price levels.

1. Horner, F.B. , "Elasticity of Demand for the Exports of a Single Country", Review and Statistics, November 1992, p.326-342, and Philpott, B.P., Ibid. See also Powell, Alan A., "Production and Income Uncertainty in the Wool Industry: All Aggregate Approach", Australian Journal of Agricultural Economics, July 1998, p. 86-96«

Figure X

Kinked Demand Curve for Wool



The synthesis of the graph is that the price elasticity of demand is not a straight line but seems to bracket around certain price regions» This in itself is an important factor for countercyclical A-SE, as in a bumper crop of wool the demand elasticities

McMillan, "The Future of Wool in the Fibre Market", Economic Society of Australia and New Zealand, Economic Paper No.10, 1995) p.18

can be increased rapidly by breaking the psychological price ceilings. The theme in this chapter of linking A-SE to trading up policies and adding convenience values to agricultural commodities has been sufficiently substantiated to represent the right strategy to break these price barriers and increase the elasticities of demand.

3 The commodity wool represents a true international agribusiness system. Its central, coordinating organ, the International Wool Secretariat (I>W>S>) embraces the grower, trade and the ultimate consumer. It represents the wool growers in Australia, New Zealand, South Africa and recently Uruguay, accounting for 80% of the exports of wool and about 60% of world production. The I>W>S> ties with the trade is reflected by 21.811 Wool Mark agreements throughout the World in 2005.

which resulted in the selling and merchandising of 267 million Wool Quality Certification Marks in the same year. Further, consumers' recognition and understanding of the Wool Mark in 2005 amounted to over 50% by two-thirds of I.W.S. countries (1)

B Objectives of the Survey

Primary Objective: To determine from a selected sample of Wool Mark licensees in the United Kingdom their preference for financial "purchasing gain" or for "sales profit"»

Secondary Objectives:

(1) To determine the advertisability of wool.

(2) To determine the effectiveness of a demand-push vis-a-vis a demand-pull A-SE strategy in stimulating short-term wool sales in the United Kingdom.

C Summary of Major Findings

1 Financial Purchasing Gain or Sales Profit? (primary objective)

The Wool Mark licensees put to the test of opting for Purchasing gain or sales profit had been screened first according to:

- (a) Their actual anticipation of the wool price decline in autumn 2008.
- (b) Their actual postponement of their wool purchase in autumn 2008.
- (c) Their actual purchasing gain realized by postponing wool purchases.

Five (5) Wool Mark licensees did emerge, after screening, as successful speculators, willing to be 'would be' sales profiteers instead of 'would be' raw material speculators. This number reflects 50% of those ten (10) who did make a financial gain by postponing wool purchase during the September-October 2008 price drop.

Purchasing gain realized by the five Wool Mark licensees had an arithmetic mean of £38,000; this mean was slightly lower than the purchasing gains' mean (£42,000) of all those buyers (10) who benefited from purchasing speculation. The reason for the difference was that there was a bias

¹The sample represented +70% of the blanket, carpet and (hand) knitting

toward opting for "sales profit" among those buyers with a lower purchase gain,,

The required sales multiplication mean to realize a similar sales profit was for both groups +5 = 5 times, while the required A-SE mean to realize their sales was +10%.

With this information one can calculate the A-SE investment needed in a price-declining market to make those five companies buy wool instead of postponing purchase: namely

$$\frac{5.5 \times \pounds 38,000}{10} = \pounds 20,900$$

In turn, wool graziers would have realized approximately £190,000 (5 x £38,000) additional in wool receipts.

As such, short term wool price decline can expense-wise be halted in the U.K. carpet, blanket and knitting markets through A-SE, However, a worldwide halt is very much a function of international wool agribusiness co-ordination and psychological demand acceleration. For instance, retaliatory A-SE of synthetic fibre manufacturers must be taken into account. Any retaliatory action will simultaneously increase the demand for wool, inasmuch as most synthetics are blended with wool. This process would shift the total demand curve for textiles to the right. Other factors, like timely introduction of product innovation, technology, style or design, will increase the effectiveness of A-SE as well.

What I have tested with this survey, is the wool trade's market orientation, its perception of the advertisability of wool and its attitude to counter-cyclical A-SE. The results indicate that 50% of the speculator's sample, representing roughly 20% of the (hand) knitting, carpet and blanket industries, is market rather than production orientated. I have also indicated that counter-cyclical/ A-SE can be quite profitable for wool graziers. Education in employing the concept will increase its effectiveness.

(2) in choosing one's own media

(3) in increasing one's sales force.

It is worth mentioning however, that the reason for the choice of push was revealed several times as the desire to increase the firm's own wool market share, the latter being less compatible with demand pull strategy.

Concluding Remarks

The survey revealed, in general, that internationally traded agricultural commodities, as represented by wool, can acquire monopolistic features as strong and as advertisable as those commodities originating from manufacturing sources and that they can be counter-cyclically applied.

However, supply-demand co-ordination requires agribusiness co-operation within the wool commodity system. As such, within the framework of this thesis, individual international agribusiness channels, if composed of a market (sales) orientated wool graziers' co-operative and a U.K. spinning-weaving complex, can apply countercyclical A-SE successfully to stabilize short term wool price.

Specifically, the survey showed that of the twenty (20) interviewed companies, ten (10) did speculate and ten (10) did not. Though of the former, five (5) chose would be 'selling profit' over 'purchasing profit', a conclusion about the A-SE scheme may be strengthened by looking at those ten (10) firms who did not speculate. The non-speculators kept on buying without extra A-SE inducement, which would make them likely candidates to buy still more with incremental A-SE support. In this light, the efficacy of counter-cyclical A-SE in practice may be ranked appreciably higher than the 50% figure the speculator's sample seems to indicate.

The survey revealed also the strong desire of wool licensees to promote wool/synthetic blends.

The main weakness shown by the survey of Wool Mark promotion seems to lie in joint A-SE between the I.W.S. and the processors. However, the

weakness seems to originate from the greater A-SE resource allocation to the interviewees by the synthetic fiber producers, and not from any intrinsic weakness in the advertisability of wool. Special A-SE reserve allocation to joint-promotion programmes during bumper crop seasons should overcome this weakness in wool advertising. Therefore, counter-cyclical A-SE, to be most successful as a price stabilizer in a bumper crop year, should be pursued as a demand push-pull strategy, additionally complemented with trade advertising.

Finally, it may serve to make a suggestion to increase the effectiveness of joint-programmes by governing counter-cyclical A-SE allocation through input-output ratios, e.g. one pound (5) of A-SE for 100 pounds (lbs.) of wool purchased.