ISSUES IN WOOL

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The past five years have been very eventful ones for the Australian wool industry. Dramatic variations in prices, volumes and incomes have caused intense policy-making activity and substantial institutional change. The consequent structural change at the farm level and in the service-providing industries is still underway and the shape of the industry for the 1990s will become more clear in the next year or so.

Such periods of turmoil occur periodically in the wool industry as in other industries, and they are particularly traumatic in those industries which are in decline relative to the rest of the economy, as is most of agriculture in most countries. Nevertheless the past five years have come as quite a shock. Relatively benign market circumstances since 1972 and the exist nce of the Reserve Price Scheme (RPS) caused many to assume that "boom-bust cycles" were a thing of the past. Business decisions were made on this basis.

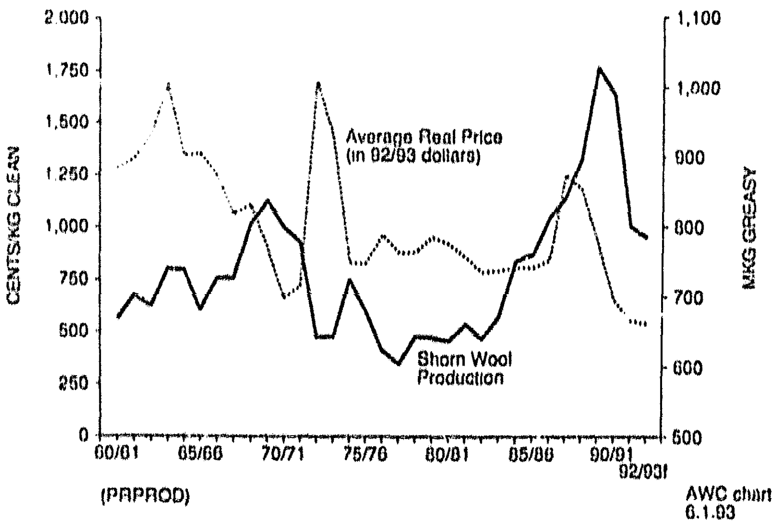
In these circumstances, early 1993 is a suitable time to record a period in history, and this is one of the purposes of this paper. The major purpose, however, is to outline the issues of the day with the purpose of stimulating discussion and research about today's problems. There is, of course, a bias towards those issues of interest to agricultural economists.

Following a brief review of the current situation of the industry, the paper proceeds with a consideration of the major interventions by government which are specific to the wool industry: the Reserve Price Scheme and the current stockpile, promotion, and research and development. A discussion of two other current issues follows, then some conclusions, particularly relating to the role of agricultural economists, are drawn.

The Situation

Journalists frequently ask whether current wool prices are the lowest ever in real terms. The simple answer is that the 1992/93 season average probably will be the lowest ever (Figure 1). But it is doubtful whether this "fact" has any meaning given the extent of

FIG 1: REAL AVERAGE PRICE AND SHORN WOOL PRODUCTION

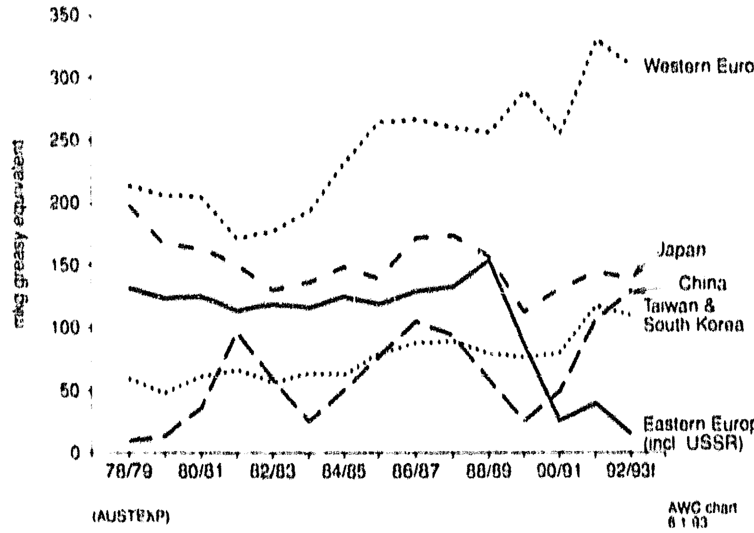


structural change since 1970/71 and, even more so, since the 1930s. What we can say with reasonable confidence is that, given the four million bale stockpile and a flat world economy, the current downturn will be among the worst ever experienced by woolgrowers.

Every bust, like every boom, is different in its consequences for growers' situations. The late 1980s saw, for the first time in over 20 years, three years in which wool prices were well above trend levels. Some growers took the opportunity to borrow to purchase assets at what hindsight suggests were inflated prices. High interest rates and the recent drought in northern areas combined with the collapse of wool prices have caused large numbers of these growers to be in serious, often terminal, financial trouble. At the other end of the spectrum, many growers are unusually well placed to survive the downturn, having used the high prices and good seasons of the late 1980s to reduce debt and make profitable on-farm investments.

On the demand side, the present situation is notable for two reasons. First, the downturn in the major economies will probably be the worst, as it affects wool, since that of the 1930s. Second, events in the former Soviet bloc have resulted in the loss of markets which previously consumed 10-20 percent of the Australian clip (Figure 2). The recession should end in 1993 but Eastern Europe is unlikely to be a substantial net importer of wool in the current decade. Fortunately it will probably be replaced by the mid 1990s by the fast-growing China market.

FIG 2: AUSTRALIAN WOOL EXPORTS



The Reserve Price Scheme

Various versions of reserve price schemes were debated for decades before the introduction of the interim scheme in 1970 and the formal arrangement in 1974. This debate was intense in the 1960s both in the industry and among policy makers and analysts, and a proposal to introduce a scheme was defeated in a referendum of growers in 1965. Once introduced, however, the RPS had overwhelming support from growers and governments, and widespread support from other players in the wool textile pipeline. When it collapsed, it was with a bang rather than a whimper. Given this history, it is remarkable that so little has been said and written subsequently. In the following brief review, consideration is given to the worth of the scheme and the reasons for its demise.

While there was support for a scheme from some agricultural economists, most greeted its introduction with scepticism at best. Neither a net benefit nor net cost could be demonstrated, but the consensus was that it would end when a temporary increase in market prices allowed the floor price to be increased to a level which would prove unsustainable. Only an expensive legacy would remain, to be borne by woolgrowers and/or governments. This view arose from observation of the performance of other commodity price stabilisation schemes. It has proved accurate, and provides an example of the type of forecasts which economists can usefully make, in contrast to the short term price/volume forecasts for which they are commonly ridiculed!

In one of the few published ex post assessments, Gunasekera and Fisher (1992) conclude that the RPS was not advantageous to either the industry or the Australian economy. However, the size of the estimated loss for the period to 1988/89 is small, and could be zero or less given the difficulties in making such estimates, in particular the uncertainties about the "hidden gains and losses" which had previously been extensively discussed in the literature. This result supports the earlier view that such a scheme could be advantageous, or at least not very costly, if it could be ensured that it would be managed conservatively as, arguably, the RPS was in its first dozen years. It is therefore worth considering why this conservatism was not maintained and the circumstances which might have ensured that it was maintained.

The seeds of trouble were sown early when there was a failure to clarify the purpose of the scheme. There were two aspects to this confusion. First, when growers were looking for price support in 1970, the government provided it but claimed to be concerned with stabilisation and filling "potholes" rather than providing a support price (ABARE, 1990). It suited neither party to eliminate the different perceptions, and in the Wool Marketing Act 1987 the government described the objective of the RPS as "to ensure that .... the prices received are not subject to undue fluctuations or irregularity and are at appropriate levels". As the concurrent reserve price setting was demonstrating, however, woolgrowers had come to regard the RPS as a means of making prices rather than stabilising them. The second confusion concerned whether the purpose of the RPS was to stabilise prices in Australian dollars or users' currencies. In 1974, adjustments in the value of the dollar were sufficiently infrequent for it to be claimed that both were possible, but even following the floating of the dollar in 1983, no clear policy was enunciated. Hence increases in the floor price in 1986 and 1987 were justified partly on the basis of the weak dollar, but were not reversed as the dollar strengthened in 1988.

Not only did the new Act of 1987 not resolve issues surrounding the objectives of the RPS, but it directly increased the risks by withdrawing the government from the process of setting reserve prices in most circumstances. The power was given to two

grower-dominated bodies, the Australian Wool Corporation (AWC) and the Wool Council of Australia, on the basis that the RPS was fully financed by a grower levy and growers would set sustainable prices so as to avoid increases in the levy. This view was naive on two counts. First, if government sponsored bodies such as the AWC are in difficulty, the government rarely avoids involvement and cost to itself, so not all the risk was borne by woolgrowers. Second, the price-setting became hostage to political processes and such
processes are notoriously subject to strong influences other than cool calculation. It has been said that the fact that the RPS succeeded for as long as it did had a good deal to do with luck. This is probably true, for two reasons. Wheat prices were relatively favourable for an unusually long period, from 1973 to 1984, largely as a result of US price support arrangements. Wool prices were unfavourable in comparison, so supplies of wool remained modest throughout the period. On the demand side, there was no general boom in commodity prices until 1988, so opportunities for setting unsustainable prices were limited until then. In the end, however, this luck became part of the problem: the apparent success of the RPS over such a period caused decision makers to underestimate its fragility and make insufficient allowances for unexpected events. The complacency affected government as well as the industry, as the Act of 1987 shows: it may be possible to establish a set of rules to constrain price-setting but all rules, even legislated ones are, like costs, variable in the long run.

A further issue surrounding the RPS and its demise is a misunderstanding which affects discussions about wool policy issues more widely: the failure to distinguish marginal from average prices. It is true of all markets that the general price level is determined not by the customer who buys the first unit but by the customer who buys the last unit. However, at least two characteristics of the wool market seem to cause this to be less widely understood than in other industries. First, the Australian end of the wool business has as its customers topmakers, whose success is as much determined by their ability to manage price fluctuations as their efficiency in processing wool. Their consistent message to woolgrowers is that price stability matters more than price level, so they do not accurately report on the consequences of price for the level of use of wool by their customers (in particular the marginal ones) further down the pipeline. Second, the contact between the Australian industry (including the AWC and IWS) and the world's wool textile industry is, for a range of good reasons, biased towards those sectors which are less likely to be the marginal customer: the wool specialist mill rather than the fibre substituting mill, the large and communicative European and Japanese markets rather than those in Iran and Turkey, the well understood consumer in the developed world rather than the emerging and still poor Chinese consumer. As the RPS came under pressure, the Australian industry sought the views of its prominent customers, who reported that lower prices would cause disastrous capital losses and would not sell significantly more wool. It would have been more useful to consult with the consumers of China or observe the behaviour of the fibre-substituting textile industry of the USA.

This failure to understand demand-side behaviour also affected the supply-side. Physical constraints on output were widely regarded as near absolute in 1987, yet output grew by a further 20 percent by the 1989/90 season. Excellent seasonal conditions in the period obscured the response to price, and it is difficult to judge the relative contributions of the two factors, or the extent of their interaction.

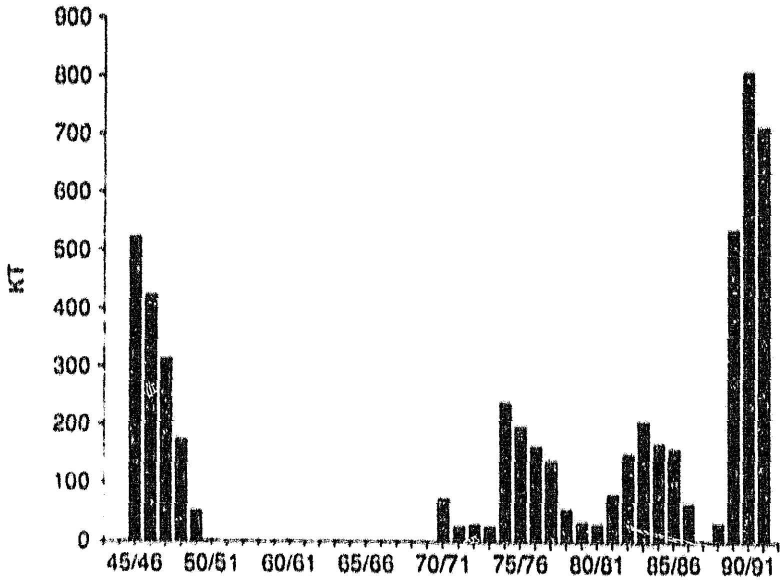
The Stockpile

The stockpile contained 4.72 million bales when the RPS was suspended in February 1991, and 4.62 million when the Australian Wool Realisation Commission became its owner on 1 July 1991. It currently stands at a little under four million bales. The Commission has until June 1998 to sell it and repay the associated debt of over $2 billion, and minimum debt repayments for each season have been specified by the government. The stockpile greatly exceeds the levels reached during the life of the RPS and constitutes about 80 percent of a season's clip. The Commission has the task of selling the stockpile in an advantageous manner, but also must have regard to the consequences for the market; in particular, it will need to ensure that the total supply of wool to the market does not contract suddenly as the last of the stockpile is sold.

The size and value of the stockpile and the potential effect on the wool market of the manner in which it is sold are such that its management is the single most important policy issue facing the industry in the next few years. Reflecting this fact, the Wool Research and Development Corporation has nominated it as the most important issue for research in the economics area. Yet it is not easy to identify areas for productive research: major contributions by Beare et al (1991) and Bardsley (1992) have been important aids in defining the issues and parameters and determining the schedule for debt repayment which the government has established, however the actual pattern of disposal will be driven much more by events in the world wool market rather than any view of optimum strategy. This has already been the case: strong demand for restocking of mills resulted in substantial sales in early 1992, while the worsening of the world recession was the main reason that sales fell to very low levels in the second half of 1992.

Looking ahead, then, what can we say about the conditions under which the stockpile might be sold over the next five years or so? It seems unlikely that we will have the benefit of a commodity boom such as those which greatly assisted the sale of earlier stockpiles, in the post war years and in 1972 and 1987-88 (Figure 3). The consequences of the boom of the late 1980s seem too recent and too painful for governments and markets to allow another before 1998. A more mundane pattern seems likely. A possible scenario is that the first million bales will be sold for restocking following the recession and as a result of further falls in production, and that another million will be sold late in the period as a result of underlying growth in the market, mainly in China. The remaining two million bales would therefore need to be sold by holding prices below trend levels. On average over the period to mid 1998, sales from the stockpile will constitute about 8% of the total supply of apparel wool to the world market. If the elasticity of demand for apparel wool is in the range -0.5 to -1.0, then the price will need to average between 8 and 16 percent below trend over the period. The current discount is about 30 percent in Australian dollar terms and more in terms of the major users' currencies, so a steady improvement can be expected.

FIG 3: CLOSING STOCKS



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AWC chart
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The existence of a substantial stockpile sometimes revives discussion of the possibility of destroying part or all of it. The argument is that as Australia is the dominant producer of merino wool and demand is quite inelastic, the industry might make a net gain from the disappearance of the stockpile. Too much attention has been given to this idea. It was probably never possible to be confident that demand was sufficiently inelastic, but this is even more unlikely now. The opening of the large wool markets of China and the former Soviet Republics to the world market has probably increased the elasticity faced by the Australian wool industry by a significant amount.

Promotion

The Australian wool industry has maintained a program of international promotion for over 50 years, and a substantial program since the introduction of the Woolmark in the 1960s. This program is implemented mainly through the IWS and is mostly generic in nature, but the AWC also undertakes a smaller program promoting Australian wool at the earlier stages of the wool textile pipeline.

The logic underlying these programs is straightforward, and has two elements. Wool has qualities which differentiate it from other fibres and it generally has a higher price than the substitutes. The industry can therefore profit from increasing the awareness of consumers of those qualities. There is also a need to provide innovations in products and processes so that the opportunities for differentiating wool are increased. The second element is that woolgrowers must finance most of the program because they are the major group with a commitment to wool as against other fibres, and they are the major beneficiaries of the increased demand which results.

The consistent support for promotion programs over a long period suggests that woolgrowers understand these arguments. They rightly seek assurances that their money is well spent, however, and particularly at times of distress such as the present.

Such assurances are not easily provided. Both woolgrowers and their customers are numerous, and separated by large distances. It is therefore difficult for growers to obtain the knowledge necessary for informed decision making. A greater problem, however, is that the impact of promotion on the demand for wool in the short term is not easily distinguished from the impacts of other factors. About 1.5 percent of the value of the world's wool clip is spent each year on promotion, so if each dollar spent returns $2 as one study suggests (AWC/BAE 1987), then the gross value of the clip will be increased (or decrease more slowly) by about 3 percent. Three percent is quite small when compared with the effect of all the other factors affecting wool prices, so it is difficult to separate it out from those factors.

Nevertheless, ways must be found of ensuring that promotion funds are well spent and communicating that fact to growers. This problem is receiving much attention at present, and there seem to be three broad approaches to managing it.

The first is simply to better inform relevant parties, particularly growers, about the nature of IWS programs. It seems to be generally the case that those who are well informed about the activities of the AWC and IWS are less sceptical than others. The two organisations greatly increased their efforts in this area in 1992 and support for the promotion program seems to have increased as a result.

The second approach is to more intensively use partial measures of success related to particular programs: adoption rates for innovations, changes in the level of consumers' understanding of wool's qualities, increases in sales following targeted promotions and so forth. These measures will receive more attention in future, and may be assisted by the imposition of fees for services: the IWS intends to charge for some services provided to the textile industry, so the worth of those services will be tested in the market place.

The third approach is the more aggregated analysis represented by the AWC/BAE study. It sought to explain changes in wool consumption levels by attributing them to relevant factors by econometric means. While such analyses are worth undertaking from time to time, they are unlikely to form a part of the on-going assessment and reporting process for a number of reasons.

- Success in obtaining statistically significant results is far from assured because of the difficulty in separating out promotion effects.

- Such studies require large data sets which are seldom available and very expensive to collect especially for the purpose.

- Results are not necessarily convincing because of the complexity of the modelling involved. Economists are likely to be sceptical because they know too much of the methods used, and others because they understand too little.

- Even if successfully completed, such studies only measure the effectiveness of particular programs in a particular period of time and in a particular location. Programs are very diverse and undoubtedly vary greatly in effectiveness.

The biggest problem in wool promotion is, of course, to select that combination of strategies and programs which provide the greatest return. This is the task of the directors and managers of the responsible organisations, however researchers can assist this decision-making process by investigating relevant issues. One example is a recent study by the Centre for International Economics (1992) of demographic trends and the implications for wool consumption. An example of an important issue which has not been adequately researched is whether scarce funds should be directed at maintaining the high wool consumption levels in Europe, or increasing the low level in China: Europeans consume much more per capita and have high incomes, but the Chinese offer greater scope for growth and can be reached more cheaply. There are many such questions to be answered and, since the Australian industry spends over $100 million per year on wool promotion, it is worth its while spending a significant amount on ensuring it is well spent.

Research and Development

The amount spent on research and development by the Australian wool industry and governments is about a third of the expenditure on promotion. Most of that amount is managed by the Wool Research and Development Corporation (WRDC). When compared with promotion, communicating about research issues with growers is less of a problem because most of the research is undertaken in Australia, but the selection of projects is just as big a problem. As for promotion, the allocation of resources must ultimately be undertaken by experts, but they can be assisted by "research on research", and much good work has been done in this area in recent years. The two most notable examples are those by Mullen and Alston (1990) and Scobie and Jacobsen (1992). The former sought to answer a strategic question with some major modelling work, while the latter provided a more practical guide to decision-making.

In the 1990s it is probably time to examine alternative allocations of funds at a more disaggregated level. Current priorities, which should continually be questioned, are giving attention to the following.

- Coordination between research and promotion has been increased in recent years, with the objective of developing new products and processes for exploitation in marketing programs.

- Environmental issues have become a major focus for research for reasons including increased land degradation at the production end, and the need for the entire processing pipeline to be seen to have an acceptable impact on the environment.

- Wool quality issues have gained in prominence with the demise of the RPS. The unregulated market makes more subtle distinctions between clips than did the old AWC in setting reserve prices. Some who are now receiving discounts for quality problems are seeking solutions from researchers.

- Technology transfer is a problem for any major research program and is recognised as such in the wool industry. Questions include: Who should do it? What is the role of the WRDC? Are there shortcomings in the capital markets or other markets which need to be addressed?

The wool industry has lost market share in recent decades, and two of the major reasons are likely to have been a greater level of innovation by producers of other fibres, and a decline in price competitiveness as the rate of growth in productivity has fallen behind that achieved in competing industries. The future of the industry depends to a significant degree on the success of the industry's research program in reducing these disadvantages.

Greasy Wool Selling

The reform of wool selling arrangements is one of the highest priorities of the AWC in the current season. The auction system, through which nearly 90 percent of the clip passes, is managed by a committee of interested parties. It is the view of the AWC and others that this structure fails to provide tight and efficient management, and perhaps more importantly, is not a suitable structure for introducing change and innovation. There is no group of people charged with the specific task of improving the way auctions are managed, and any of the parties involved can prevent any change which is inconvenient to them.

The AWC has proposed the establishment of an International Wool Exchange. This follows a less well developed proposal from the National Council of Woolselling Brokers of Australia. The Exchange would have a board and dedicated management, and buyer and seller members who would trade under its auspices. It would be an entirely independent organisation, but growers, brokers, and exporters (buyers) would provide its initial capital and nominate members for its board. Its objectives would be (Jackson 1992):

- to provide efficient and fair wool selling systems,
- to provide alternative wool selling systems which satisfy the needs of both sellers and buyers,
- to foster innovation in the marketing of greasy and processed wools,
- to provide independent, regular and comprehensive market reports and analysis,
- to maximise information flows between the seller and the buyer,
- to ensure maximum product integrity, and
- to encourage increased product quality.

The major interest groups have agreed in principle to such an exchange and discussions are under way with a view to its commencing operations in July 1993.

Whatever shape the management of wool selling arrangements takes, it seems likely that most wool will continue to be sold through some version of the auction system. There is a compelling logic to the use of auctions for selling wool. Wool is produced in small amounts and is highly variable, not only between clips and lines within clips, but over time: wool from the same flock varies from year to year according to seasonal conditions. Optimum outcomes for both buyer and seller are therefore likely to result from system of exchange which brings together large numbers of sellers, and allows buyers to make their selections in a competitive environment.

Much debate and experimentation has occurred in the past year or so about various methods of direct selling to mills, bypassing the auction system. This at least partly arises from the demise of the RPS and the opportunities and incentives which have arisen in its absence. Such innovation is to be welcomed, and there have been some successes. But many have not succeeded, sometimes because of a failure to appreciate the advantages of the auction system or because of ill-informed views of the degree to which easy profits can be made further down the wool textile pipeline. Such failures can be expensive to those involved and present a problem to the AWC and others: information can be provided to assist innovators with their decisions, but a careful balance must be struck between promoting desirable caution and discouraging desirable experimentation.

One trend in the industry is likely to result in a significant increase in direct selling. A significant expansion is under way in early stage processing capacity in Australia, and it is normal practice for local mills to obtain some of their supplies direct.

"Value Adding"

The processing of wool within Australia is topical at present. Some, including the federal government, are of the view that more than the current 20 percent or so of the clip should be processed before export. The Wool Processing Task Force will shortly report to the Minister for Primary Industries and Energy on means of increasing this proportion. It is topical also because three major investments in topmaking plants are under way at present and others are under consideration. These developments seem to be occurring for three reasons: the growth of the wool textile industries in Asia, particularly China; the cost of effluent disposal in Europe and developed Asian countries; and the cash subsidies available from the Australian government. It is not clear which of these factors are more important.

The new mills are owned by major existing wool processing companies, so they are likely to be world competitive, and any cost to the Australian economy will be limited to the subsidy provided. Since the traditional forms of industry policies in Australia have generally supported industries which are clearly not internationally competitive, the subsidy policy could be regarded as an improvement. Whether it represents progress for the wool growing industry is, however, less clear. Growers will gain some options for selling their wool, but the bigger issue is the implications for accessing the China market. No doubt it is sensible to process Australian wool headed for China in Australia rather than in Europe, but it may make even more sense to process it in China. China's governments may be less inclined to restrict wool imports if there is a substantial wool-specific industry within the country or province, and only early stage processing is wool specific. There is also the possibility that the Australian government's subsidies could more profitably have been directed at other value adding activities in the wool industry such as improved fibre specification, quality control, or increasing expenditure on promotion.

Conclusion

In "Wool in 1980", Watson observed that ".... the interest in wool marketing previously shown by agricultural economists has not been maintained outside the public service and the wool industry itself". This observation applies with greater force in 1993, however there has been a more fundamental change of interest to agricultural economists in the early 1990s.

Much of the interest of the profession in the past has been sustained by the RPS and issues of stabilisation involving government intervention. In line with the general trend in the economy, such substantial interventions are less likely in the wool industry in the foreseeable future than in the past. The current attitude of the industry illustrates this change. Despite very low wool prices there is only minority support among growers for the reintroduction of the RPS, and this attitude contrasts markedly with that in the 1960s as reported by Watson: "... an uneasy peace could only be maintained by the fact that a wool marketing report was always in the process of being commissioned, being prepared, or being considered".

Once the sale of the stockpile is well advanced, therefore, agricultural economists interested in the wool industry will need to concentrate less on policy issues in which governments are a major factor, and more on assisting firms to operate with greater efficiency and innovation. Those firms include farms, businesses servicing farms, research organisations, processors, and the AWC, IWS and WRDC. As Malcolm (1990) has pointed out in the context of farm management, the experience in this area has not always been a happy one and it presents a significant challenge. Nevertheless, opportunities are numerous enough. In addition to the topical issues already referred to, subject areas which might profitably be researched include the following.

- The auction system provides an extremely rich database for price analysis and related research. The AWC has undertaken extensive price analysis in the past year or so, but plenty of opportunities remain. Of particular interest is the changing behaviour of the wool market and its participants as they adjust to the end of the RPS, the sale of the stockpile, and the complete absence of market intervention which will follow.

- The fluctuations in wool prices since 1987 are in stark contrast to the relative stability of the previous 13 years, so provide a welcome opportunity for analysing factors in the world wool market. The analysis of the period is not easy, however, as 5 years or so of data is less than the desired amount to distinguish the effects of major factors in the market in that period: the commodity boom and subsequent recession; the effect on the behaviour of market participants of changes in reserve prices, their removal, and the manner of their removal; the variation in seasonal conditions; and structural changes in major markets.

- Risk management is of increased concern to growers, processors and traders. It is also of concern to the Realisation Commission which is required to encourage the development of secondary markets. Research should not be confined to the use of futures and options, but should include on farm risk management methods and marketing alternatives such as pools.

- Liberalisation of China's economy is causing one of the greatest structural changes in the modern history of the textile industry. Increasing consumption within China and its growing share of world trade in textiles are both highly significant developments, and there is much to be learned about their consequences.

- Data such as those generated by ABARE's farm surveys and the AWC's and IWS's consumer purchase research have been underutilised.

The pool of research funds, however, is becoming more shallow. Agricultural economists have been significant beneficiaries of the rents which have accrued to Australian agriculture, and these rents remain on a declining trend. In the wool industry, they are also being affected by the severe cyclical downturn. There seems also to be a declining trend in the number of researchers, however, so funds remain readily available to those with good ideas and the necessary skills.

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