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## **AUSTRALIAN AGRICULTURAL ECONOMICS - CRITICAL ISSUES THAT SHAPED THE PROFESSION**

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### **Abstract**

Economics established itself as a separate social science in Australia in the early decades of the twentieth century, but it was not until the 1950s that agricultural economics developed strongly in this country. There was considerable mistrust and disagreement between agricultural scientists, agricultural economists and economists in general. The most effective way to get some appreciation of the economic issues associated with agriculture was by public discussion and debate. This paper shows how the ideas of economists and agricultural economists gained prominence in academic journals and public forums throughout the 1920 - 1950 period. A wide range of issues, including land settlement, price stabilisation and industry assistance, were openly discussed. In this way the agricultural economics profession grew and became accepted as a legitimate discipline.

## AGRICULTURAL ECONOMICS

### CRITICAL ISSUES WHICH SHAPED THE PROFESSION

#### 1. INTRODUCTION

Although economics established itself as a separate social science in Australia in the early decades of the twentieth century, it was not until the 1950s that agricultural economics developed strongly in this country. The comparatively late start for agricultural economics in Australia may be attributed to the fact that the physical and biological strands of agricultural science were well entrenched in the farming and academic communities. Agricultural scientists were unreceptive and suspicious of the possible contribution of agricultural economics.

In the United States of America and the United Kingdom the subject had emerged as a separate discipline much earlier. Leading economists and agriculturists in those countries made significant contributions to the development of the profession early in the twentieth century. Agricultural economics had become an important and recognized field of study by the 1940s due to the work of such people as Sir Daniel Hall, C. S. Orwin and A. W. Ashby in United Kingdom, and T. W. Schultz, E. O. Heady and J. D. Black in United States.

In Australia, there was still considerable mistrust between agricultural scientists, agricultural economists and economists in general, as late as the 1950s. With such disagreement within the agricultural and agricultural economics disciplines, the most effective way to get various groups to appreciate the economic issues associated with agriculture was by writing in academic journals and attending multidisciplinary conferences. Articles were published in the *Economic Record*, *Economic Papers*, and the *Journal of the Institute of Agricultural Scientists*. Papers were presented at the conferences of the Economic Society of Australia, and the Australian and New Zealand Association for the Advancement of Science (ANZAAS). In this way, a broad range of scientists, including economists, openly discussed a variety of issues such as land settlement, irrigation, price stabilisation, marketing and government intervention. Consequently, the work of many of the leading economists<sup>1</sup> in the 1930s and 1940s gained much public attention and the profession of agricultural economics gradually became accepted as a legitimate field of study.

The growth of Australian agricultural economics in the early years was influenced by the problems that arose in the rural sector due to such factors as war, depression, the changed direction and composition of trade, industrial development and technological change. The lack of trained personnel in the field of agricultural economics was perfectly obvious when farmers, industry groups and government departments were trying to deal with the various difficulties facing agriculture in the period following World War One, the Great Depression and the Second World War. Both agricultural scientists and economists sponsored the development of agricultural economics in Australia. Some Professors of Agriculture (Professor S. Wadham at Melbourne University in particular) believed that agricultural scientists should not focus too closely on their own problems but be willing to embrace the greater problems of the wider world.

“Fortunately, for some years, agricultural science has realised the importance of admitting certain of the social sciences, notably economics, within its boundaries, and although in Australia the subject has never received anything like the attention it deserves, one may hope that such a state of affairs will not continue indefinitely.”  
(Wadham, 1939)

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<sup>1</sup> Such as E. O. G. Shann, S. J. Butlin, R. C. Mills, D. B. Copland, L. F. Giblin, J. G. Crawford and K. O. Campbell, to name just a few.

In 1928 A.E.V. Richardson, an agricultural scientist, pointed out the urgent need for the establishment of an organised economic service, or formal research body, specialising in agriculture, to provide information that would assist the growth of an efficient agricultural industry. He claimed that Australia was the only important agricultural country in the world where no Division of Agricultural Economics had been established within a government Department of Agriculture or a university faculty (Richardson, 1928, p.250).

In the 1920s and 1930s economists<sup>2</sup> were constantly evaluating contemporary agricultural policy. They questioned existing government policies and were critical of the fact that the economic welfare and stability of the farming community was supported by government (both State and Federal) intervention. In order for different policy approaches to be accepted and adopted by policy makers, these economists had to show that the measures they recommended could provide solutions to current economic problems. In addition, their economic ideas had to fit in to the administrative and political environment of the time.

Eventually, as the agricultural economics profession grew, the agricultural economists were able to convince farmers of the shortcomings associated with prolonged market intervention, to dampen some of their unrealistic expectations, and to generally facilitate economic adjustment within the rural sector. Through excellent and relevant agricultural economic research, the agricultural economists were able to assist farmers as they struggled to adapt to the changed environment, both nationally and internationally, within which the Australian rural industries had to operate.

Growth of an applied science that is connected to a specific industry will inevitably be related to the economic fortunes and importance of that industry. In the 1920s and 1930s, agriculture was the most important sector of the Australian economy and agriculture was the foundation upon which increased diversification of the economy was to be built. Agricultural exports were the most significant source of foreign exchange in Australia and these export receipts underpinned the immigration and industrialisation policies advocated by governments of the time. Given the importance of agricultural exports in the early twentieth century, agricultural economists aimed to understand the behaviour of world commodity markets. However at this time agriculture was subject to increasing and controversial intervention by Federal and State governments. Government regulation of any kind will attract the attention of economists because they are generally concerned about the way in which any interference with the market impacts on the level of production and the efficiency of resource allocation.

Economists such as Copland, Giblin and Brigden had considerable interest in agricultural problems and they became very involved in debates about agricultural issues. From 1925, many articles were written in *The Economic Record*, the professional journal of the newly formed Economic Society of Australia and New Zealand, as well as in other academic publications. These economists, and others, participated fully in various government committees of enquiry and Royal Commissions<sup>3</sup>. They were also members of numerous government bodies, acted as economic advisers, and represented Australia at international conferences<sup>4</sup>. In this way, economists openly presented their views and discussed economic policy, especially agricultural policy. They had considerable influence on the economic thinking and administration of State and Federal governments of the day. A group of very talented economists existed in Australia in the 1920s and 1930s and through their work, economics emerged as a scientific study in its own right. By systematically analysing agricultural economic problems, and applying economic theory to real-world situations, these economists contributed significantly to the growth and direction of the agricultural economics profession.

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<sup>2</sup> Particularly Professors Copland and Giblin at Melbourne University, Professor Brigden at University of Tasmania and the Government of Queensland, as well as L. G. Melville and J. G. Crawford who were bank economic advisors.

<sup>3</sup> For example: The economic enquiry into the Australian Tariff was conducted by Brigden, Copland, Dyason, Giblin and Wickens, economists and statisticians. Economists were members or advisers to The Development and Migration Commission (1926), the Grants Commission (1933) and the Royal Commissions into the Wheat, Flour and Bread Industries (1934), and the Monetary and Banking Systems (1936).

<sup>4</sup> Melville attended the Ottawa Conference in 1932, and Shann the World Economic conference in 1933

## 2. ISSUES

Agricultural economics basically involves the application of economic theory to agriculture. However, over time the scope of agricultural economics has broadened. Initially the subject was concerned with the 'farm problem'. This refers to the fact that, as the economy expands, the size of the farm sector shrinks in relation to Gross Domestic Product and the level of national employment. With economic growth, aggregate supply in the farm sector tends to increase at a faster rate than domestic demand for farm products. Lower prices and incomes in the farm sector relative to the non-farm sector is the result. The fact that a gap exists between average incomes received by farmers and those received by non-farm earners does not necessarily prove the existence of a farm problem. However, when such comparisons are made the standard conclusion is that farmers throughout the world are generally underpaid. In 1960 the Food and Agricultural Organisation (FAO) of the United Nations claimed:

Almost nowhere do farmers receive a share of the national income proportionate to their numbers: that is, the average farmer generally earns less than his fellow citizens in other occupations . . . It is also true that it is very difficult to decide exactly what agriculture's 'fair share' should be. It seems, however, safe to say that in most countries agriculture is inadequately rewarded, both from the standpoint of providing buying power for a decent standard of living and from a comparison with that offered on a return for labour, capital and management in other occupations (FAO, 1960).

Despite this awareness that farmers were afforded inadequate reward for their efforts, 'farm fundamentalists' took the view that farming had cultural and social significance. Farm life was healthy and family farming had special virtue in the eyes of many people, particularly some religious organisations. Thus the policy stance of assistance to farmers was justified. Furthermore, it was widely believed that the political stability of a country was dependent on there being a large rural population. Governments wanted to ensure that farmers had a degree of income security and price stability, thereby encouraging them to remain on the land.

Some economists questioned the wisdom of closer settlement and the drive to encourage more people to be 'on the land'. They were more concerned about efficient resource allocation, the uneconomic nature of small farms, the limitations of the Australian market, and the problems associated with competing on world markets. These economists were sceptical about the level of government assistance being given to farmers and the degree of government intervention being undertaken in agricultural markets.

This paper identifies many of the issues that were extensively debated among agricultural economists, agricultural scientists, general economists and other academics during the early development of agricultural economics. Through their discussion of economic ideas and critical analysis of contemporary policies, these academics and bureaucrats raised the profile of agricultural economics and formalised the new profession.

### 2.1 The Duality of Agricultural Economics

The evolution of agricultural economics was characterised by bitter conflict in its early days. The boundaries of the subject were not clear and there were few professional agricultural economists. Eventually two major lines of development appeared. On the one hand, agricultural economics was considered to be part of Farm Management and it was, therefore, about improving farm practices, thus enhancing the general efficiency of farm production. Farm business management and farm bookkeeping were considered to be the most important elements of the subject. The alternative approach viewed the subject as part of the Political Economy of Agriculture and was therefore concerned with the application of economics to agriculture and the refinement of economic principles for use in tackling agricultural problems<sup>5</sup>. This division in agricultural economics manifest itself in the United States and United Kingdom in the early years of the twentieth century and was especially apparent in the different approaches taken by various academic institutions in United States.

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<sup>5</sup> Agricultural economics started in Germany and France in the late nineteenth century in the university departments of *Landwirtschaftliche Betriebslehre* (farm management) and *Agrarpolitik* (political economy of agriculture) and in the study of *économie rurale* (rural economics).

Some Land Grant Colleges (Minnesota, Cornell, and Illinois were particular examples) adopted the comparative, farm management approach, where the emphasis was on farm surveys and the analysis and interpretation of farm records. Staff in these institutions had progressed from academic work in departments of crop or animal husbandry into studying systems of farm managements. Other institutions (such as Harvard University and Iowa State) took a more scientific approach and developed the study of agricultural economics from the discipline of pure economics. Staff in these institutions considered agricultural economics to be the application of economics to agriculture, not an independent set of doctrines built up from a particular body of data (Nourse, 1916, p.370). Agricultural economics was a part of the science of economics and agricultural courses needed to include a general elementary course covering the fundamental principles of economic theory.

The farm management approach involved research into the technical, economic and social factors which affect farm activities, from the perspective of the individual property (Rutherford and Lloyd, 1952, p.218). Farm management problems were very complex. They involved the consideration of so many related factors that the research was inevitably broad in scope and comprehensive in nature. Agricultural field officers would assist farmers in assembling, analysing and interpreting the farm records in such a way as to enable each farmer to compare his accomplishments with similar farms and the same district. Given this information it was thought that farmers would be able to improve their own organisation and practices. However, such comparative analysis would only be valid if the farms studied were fairly homogeneous otherwise the statistical analysis would disclose differences in earnings, which were not wholly attributable to differences in the management practices being investigated (Rutherford and Lloyd, 1952, p.225). There was much debate between the agricultural economists who supported the comparative approach (the bench markers) and those who thought diversity amongst farms was too great for benchmarking to work.

Nevertheless, farm management research was considered necessary in order to show farmers not only the technical efficiency of new methods of production, but also the economic efficiency of those methods. Economic efficiency, in terms of the net return on capital invested, was difficult to estimate. Variations in farm incomes were due to a variety of inter-related factors and it was a formidable task to isolate statistically the distinct effects of particular farm practices or specific capital investments. Farm management studies relied extensively on farm records. These records were used to estimate the costs and profitability of particular farming techniques under certain conditions. A. W. Ashby<sup>6</sup>, an agricultural economics research scholar, noted that in the United States during the 1920s, a great deal of work was being done collecting data regarding farm costings and the financial results of farming. However, Ashby claimed that the collection of raw material seemed more important than the actual use of the information to improve farming.

“Everybody is collecting raw material; everybody is working on that raw material up to a certain point; everybody publishes the results of his research as soon as possible and no one tries to make a general philosophy of the whole of the results; yet at the same time it seems to me there is nothing more needed from the point of view of further development, and from the point of view of making the present work effective, than an attempt at any rate to draw together the main conclusions of the work which has been done in the last fifteen years and to try to shape those conclusions into a general body of knowledge.....Everybody in the United States, working in the subject of agricultural economics at this moment, is afraid of theories. Perhaps they had too many of them in the early years of the development of the work. As a consequence, ... most workers are concerned more with the collection of raw material than with the application of results to the practical problems of the farmer to the practical problems of the relations of the State to the industry. (Ashby, 1929, p.11-12)

In Britain also, a great deal of work was being done in collecting cost data during the first three decades of the twentieth century. Early agricultural economists were employed as ‘costings officers’<sup>7</sup>. Leading

<sup>6</sup> A. W. Ashby studied at the Oxford Agricultural Economics Research Institute (1913) and the University of Wisconsin (1914) and was one of Britain’s first professional agricultural economists. He later became the first British Professor of Agricultural Economics at the University College of Wales, Aberystwyth.

<sup>7</sup> The U.K. Ministry of Agriculture set up provincial advisory centres in the 1920s and employed these agricultural economists. The centres were attached to various universities and agricultural colleges and the agricultural economists were required to not only teach and undertake research, but also to advise farmers. In this latter role, it was essential that these advisory economists should have the ability to understand farming problems and to make themselves understood by farmers. In addition, they had to persuade farmers to keep detailed farm accounts and allow those accounts to be seen and used by others.

agricultural economists such as Sir Daniel Hall<sup>8</sup> and Charles Orwin<sup>9</sup>, advocated the keeping of comprehensive farm accounts and developed systems for recording the costs of the major products of a mixed farm. Despite extensive resources devoted to the collection of these cost records, they proved to be of little value to the farmers<sup>10</sup>. Farmers needed specific information in order to guide their decision-making and this was not possible using the 'comparative approach' unless the analysis incorporated a very large number of farms. Both Hall and Orwin were specialists in the field of agricultural costings and both had an abiding interest in developing cost studies as a research method. However, such studies gradually became less important in the field of agricultural economics as the limitations of full costings as a guide to costs of production were realised, and other methods of research became more widely adopted (Whetham, 1987).

There was general dissatisfaction with farm management research based on farm costings and some agricultural economists (Cambridge economists J. A. Venn and R. McG. Carslaw in particular) preferred a system of farm surveys. Farm survey research focuses on farms in general and tries to identify overall trends in the rural sector. Financial and quantitative data on output and inputs is obtained from as many farms as possible and the data analysed according to type of farming and size of farm<sup>11</sup>. It is often directed towards one particular aspect of farming and is therefore more restricted in scope. However such research does involve the collection of actual data, and this data provides the basic background information essential to agricultural extension activities, and the formulation of agricultural policy. Whetham states that British economists were following the agricultural economists in the United States when they changed to farm surveys rather than using full costings. British agricultural economists who visited United States at this time noted that the mass of data collected at the agricultural colleges was being subjected to increasingly refined statistical analysis (Whetham, 1981, p.60).

The alternative approach to agricultural economics favoured the construction of economic models and the use of statistical analysis when investigating agricultural problems. This scientific approach involved the use of linear programming techniques as a means of providing relatively simple and realistic solutions to problems involving constrained resource-allocation decisions. By using these statistical techniques agricultural economists T. W. Schultz, at Iowa State and Chicago, and E. O. Heady at Iowa State, were able to take agricultural economics to a new, and higher level. Schultz was one of the first agricultural economists to build a comprehensive theory based on an overall vision of the problems of development and economic instability in agriculture. Schultz ultimately published two texts, which were landmarks in agricultural economics education, viz. *Agriculture in an Unstable Economy*, (1945) and *The Economic Organisation of Agriculture*, (1953). Earl O. Heady, who followed Schultz at Iowa State, published his highly acclaimed *Economics of Agricultural and Resource Use* in 1952. The discipline of agricultural economics had at last produced influential and respected textbooks that applied the theoretical constructs of economics to agricultural production economics, and that highlighted the importance of a general theoretical approach to the problems facing the agricultural industry<sup>12</sup>.

The scope of agricultural economics had gradually broadened and there was increased demand for appropriate statistical tools and improved methods of economic analysis.

The demand was ... not for advice in terms of ideas and principles, but for guidance in terms of practical application. What came to be sought were tools for quantitative measurement of data, instruments with which to gauge elasticities or rigidities, sequences of responses, and a multitude of other dynamic phenomena...American agricultural economists ...put statistics to work to make all the facts concerning

<sup>8</sup> First Principal of Wye College of Agriculture, 1894-1902, Director of Rothamsted, 1902-1912, commissioner in the Development Commission from 1912 and permanent secretary of the Ministry of Agriculture (formerly the Board of Agriculture) from 1917-1928.

<sup>9</sup> Studied at Wye College and became the first Director of the Oxford Agricultural Economics Research Institute in 1913 where he remained until his retirement in 1946.

<sup>10</sup> Full costings required the allocation of joint and overhead costs among various products using accounting procedures which had little relevance to farmers or to their understanding of the term 'costs'.

<sup>11</sup> This pattern was derived from contemporary practice in many of the American agricultural colleges at that time, particularly Cornell University.

<sup>12</sup> In 1929, A. W. Ashby had lamented the fact that nobody had 'dared to write what one might call a general treatise or a general text-book of Agricultural Economics' (Ashby, 1929,p.11).

American agricultural resources, production and marketing available. In the United States statistics and mathematical methods for analysing data, relationships, and sequences were adopted or developed at an accelerating rate, particularly when governmental planning during the recovery period and World War II required the application of such devices (Brandt, 1955, p.795).

In his writings, Schultz argued for investigation into the economic effects of long-term shifts in the demand for agricultural products and long-term changes in the supply of factors of production. The inherent economic instability of agriculture in the short term could be attributed to the generally low elasticities of both the demand for, and the supply of, farm products. Schultz maintained that with increased investment in agricultural economic research and extension services, together with improved information services for farmers, new productive techniques and management strategies would be implemented within agriculture. Increased output and factor productivity would result thereby reducing the uncertainty and instability associated with agriculture.

The agricultural economists who followed this scientific approach to agricultural economics research accomplished a great deal in terms of mathematical methodology. However, economics is a social science and the agricultural economists had to be aware of the limitations of a methodology that can measure quantitative cause-and-effect relations only within a given set of circumstances and only on the assumption of *ceteris paribus* (Brandt, 1955, p.797). Keynes also questioned excessive reliance on mathematical economics and maintained that economists risked losing sight of the complexities and interdependencies of the real world if they leant exclusively on such analyses (Keynes, 1949, p.298). What agricultural economics needed was a coherent theory; a meaningful intellectual framework of abstract principles based on accurate knowledge of a great deal of observed data. The two strands of agricultural economics in the United Kingdom and the United States of America gradually converged by the middle of the twentieth century as members of the profession such as Ashby, Black, Schultz and Heady, widened the area of inquiry, and developed the theoretical basis of the subject. The scope of agricultural economics continued to broaden and came to include the study of land economics, marketing, agricultural co-operation, agricultural finance, statistical and historical research, and rural sociology<sup>13</sup>.

In Australia, there was also a divergence of opinion about the way in which agricultural economics should develop. There was a tendency for agricultural scientists to support a crude cost-accounting concept of agricultural economics. Under this approach, the agricultural economists would undertake cost-benefit analyses of new practices developed by the agricultural scientists. Such analysis, combined with farm surveys and record-keeping studies, would enable farmers and agricultural extension workers to identify the factors affecting farm profitability. Unfortunately, some Australian agricultural scientists, in the early years of the twentieth century, held the view that economics, and therefore agricultural economics, was not really a science. These scientists argued that the essential feature of the scientific approach was the use of the experimental method of research, not mere fact finding. Agricultural economics was considered a serious subject, but they considered its investigations did not amount to research in the scientific sense<sup>14</sup>.

Support in Australia for the development of agricultural economics education and research, did ultimately come from the scientific establishment. Professors of Agriculture at the University of Melbourne (Wadham), the University of Western Australia (Underwood) and the University of Adelaide (Richardson), as well as some veterinary scientists, (Clunies Ross and Whitehouse at Sydney) were prominent academic benefactors<sup>15</sup>. However, there was still some confusion as to the nature of agricultural economics education. Was a course in rural economy about general agriculture, animal husbandry, or agricultural economics? Or was it simply a general farm-oriented course? Even in the late 1950s, advocates of agricultural economics were still not clear about what the content of an effective curriculum in agricultural economics should be (Drummond, 1959, p. 96).

The fledgling Australian profession had much to contend with as it attempted to establish itself within academia. The agricultural scientists were well entrenched in rural industries and many of these

<sup>13</sup> Ashby, 1929, p.11 cites these areas as organizational divisions within the United States Bureau of Agricultural Economics in the 1920s.

<sup>14</sup> Sir Ian Clunies Ross of CSIRO stated this view when he was called upon to declare whether the work of the Bureau of Agricultural Economics constituted scientific research (Correspondence from Professor J. Lewis).

<sup>15</sup> Clunies Ross ultimately became a supporter of the subject despite his earlier reservations.



scientists were both unsympathetic and dubious about any possible contribution that agricultural economics might make to rural policy. Opposition also came from economists themselves. The eternal question of whether agricultural economists should be trained, in the first instance, in agricultural science or in economics was a relatively minor example of the deep-seated antagonism between the respective faculties in the university context<sup>16</sup>.

The duality of the discipline was apparent in the State Departments of Agriculture. In some departments the research and policy advisory role was paramount, particularly in the N.S.W. Department of Agriculture, Division of Agricultural Economics. This Division, in the late 1940s, recruited a highly qualified group of workers who developed an outstanding research record, and at the same time, provided policy advice to the administration. However, in other State departments at that time, the work of an agricultural economics unit was to conduct farm surveys. These surveys provided important data on various aspects of farm management. Some government administrators were enthusiastic supporters of farm surveys and empirical evidence<sup>17</sup>. They believed that information on the costs and returns of specific farm practices was essential for good farm management. Professor Campbell, on the other hand, argued the need for more analytical research and emphasised the role of the universities in this respect. He believed that it was in the public interest 'to foster independent social science research in academic institutions' and believed there was too much emphasis on empirical studies (Campbell, 1957, p.24-30).

Given that Australia was a major primary-producing country in the first half of the twentieth century, it was surprising that analytical agricultural research did not develop and expand more quickly. Intensive farm management studies were also neglected in Australia at first, yet such detailed studies would have been invaluable for agricultural extension workers. Eventually the two strands of agricultural economics came together. Once the aims and objectives of research projects were clearly established, researchers could approach agricultural problems from many different perspectives. There was a role for both fact finding and economic analysis within the process of rational policy formulation.

## 2.2 Closer Settlement

Schemes for closer agricultural settlement have been a feature of the Australian economy since the mid-nineteenth century<sup>18</sup>. In newly developed countries such as Australia there was plenty of land and Governments had the task of settling more people on the land. They concentrated on the immediate problem of providing more farms with little thought as to the wisdom of their policy in the long term. In the early 1900s more land was purchased for subdivision, and a Closer Settlement Board was established in 1904. Towards the end of World War One, the Discharged Soldiers' Settlement Act was passed in all the states and the stage was set for "one of the most expensive and least profitable public ventures in Australian history (Fitzpatrick, 1949, p. 277). Australian governments were faced with the duty of absorbing the returning soldiers into civilian life without adding significantly to unemployment.

At a time when the soil, rather than manufacturing, was seen as Australia's source of real wealth and economic growth, the policy makers turned to the land. In the inter-war years three types of land settlement programs were promoted through government action<sup>19</sup>: (1) soldier settlement, (2) civilian closer settlement, and (3) migrant settlement. These policies were implemented in order to satisfy the demand for land and to promote small-scale farming. These government policies were followed despite criticism highlighting the inefficiency of small farms and the inappropriateness of closer settlement schemes in a country like Australia. Wadham (1948) maintained that 'sturdy yeomanry' was unrealistic in Australia where large pastoral estates had evolved due to climatic conditions and the activities of squatters. Wadham argued that small farms would be unsuccessful except in a few districts. Lake (1987) claimed that the yeomen ideology was hopelessly out of step with the increasingly capitalised

<sup>16</sup> At Sydney University in 1957, the Faculty of Economics objected to the Faculty of Agriculture establishing an agricultural economics degree. The Economics Faculty was also reluctant to award a master's degree to a student specialising in agricultural economics (Campbell, 1983, p.48)

<sup>17</sup> P.C. Druce, N.S.W. Department of Agriculture and D. H. Penny, S.A. Department of Agriculture were notable examples.

<sup>18</sup> Land Selection legislation was first passed in 1861-2 in NSW and Victoria.

<sup>19</sup> By 1925, in Victoria alone, 10 Acts of Parliament were passed dealing with closer settlement and soldier settlement (Royal Commission on Soldier Settlement, 1925, p.1.)

industry of agriculture where farming was market oriented and required specialist knowledge. The Closer Settlement Board had been strongly criticised by the Victorian Royal Commission on Closer Settlement (R.C. Closer Settlement, 1917). In their 1917 Report the commissioners stated that closer settlement under the Acts had not justified the expenditure that had been incurred. In 1918 the Hon. J. D. Brown, a member of the Victorian Parliament declared that closer settlement had been a costly failure and warned the government to learn from past mistakes (Taylor, 1936, p.58).

In the immediate post-war period, the failures of the earlier closer settlement schemes in Australia were forgotten as governments made an effort to, not only give soldiers a piece of the land they had defended, but also to steer them away from the overcrowded urban areas. Huge areas of land were effectively exploited. The massive influx of soldier settlers into the wheat industry to join the already disgruntled civilian settlers<sup>20</sup> was a guarantee of rural unrest. With low export prices, the high cost of farm improvements, drought and the difficulty of farming in marginal land, wheat farming was indeed a challenging business (Connors, 1996, p. 30). Nevertheless, the number of wheat farms and the total value of wheat production increased substantially, as did the area under fruit and vine production.

In the prosperous times of the 1920s Australia needed people to settle the land and to develop the perceived 'inexhaustible resources' of the vast continent. 'Men, money, markets' was the theme of imperial policy at the time and through the Empire Settlement Act of 1922, over 300,000 immigrants arrived in Australia. With the 1925 Agreement, (34,000,000 pounds Agreement) there was ample capital provided for development, and in 1926, the Development and Migration Commission was set up to consider and approve schemes to be funded. Plenty of money was borrowed and major development schemes<sup>21</sup> were undertaken with great enthusiasm. The economic growth of the 1920s was based on the diversification of primary production with the addition of a new range of exports of land-intensive products (Sinclair, 1976, p.165). The fact that there was very little under-utilised land available, and the idea that there were any limits to closer settlement, was not considered by the governments of the day. They were more concerned with population increase, and rural construction continued apace as long as some economic use could be made of the land.

Although productivity and the standard of living increased in the 1920s there were fewer people engaged in farming in 1933 than there had been a decade earlier. Clark and Crawford argued that Australia had devoted too large a proportion of her labour force to primary production in the 1890-1920 period because primary industries were experiencing diminishing returns to labour at that time (Clark & Crawford, 1938, p. 92-93). The numbers engaged in primary production ceased to increase after 1921 and by the 1930s, pastoral and agricultural industries were much less significant in the Australian economy than they had been<sup>22</sup>.

The experiment of settling large numbers of people on agricultural holdings was not entirely successful because by 1936-37, twenty years after the scheme began, more than half the soldier-settler farmers had left their holdings. Mr. Justice Pike, of the Land Valuation Court of N.S.W., in his *Report on Losses Due to Soldier Settlement* (Comm. P.P., 1929, Vol. ii) maintained that there were four causes of the failure of the settlement schemes. Most of the farmers had insufficient capital, the blocks were too small, some settlers were not suited to farming, and the price of many of the primary products being farmed by the soldier settlers fell significantly. These four causes were basically economic in nature and Justice Pike concluded that in some situations, the soldier's block was a perfectly hopeless enterprise.

"These schemes might be successful in those cases where the holder had a sufficient area to maintain his home - and by that I mean such an area as would, under average seasons and circumstances return him for his labour thereon an amount sufficient to meet his commitments to the Crown, and also to maintain himself and his family - but when the area fell short of providing these amounts there was nothing left for the settler but to look year after year at an accumulating load of debt" (Comm. P.P. 1929, Vol. ii, p. 23)

<sup>20</sup> The new wheatgrowers of the early twentieth century often ended up on the most distant and marginal land. Many were migrants enticed to Australia by assisted passages and the offer of land on generous terms. Furthermore, after Federation, the new States wanted to boost their populations in order to gain their fair share of Federal finance which was allocated on a per capita basis (Connors, 1996, p. 30)

<sup>21</sup> Railways were built, irrigation systems constructed and rural settlement schemes established.

<sup>22</sup> Fitzpatrick noted that, at this time, these industries employed only one-fifth of the labour force, and contributed less than a quarter to the national income (Fitzpatrick, 1941, p. 286).

The over-expansion in export industries had disastrous consequences when commodity prices, particularly wool and wheat, fell catastrophically. The value of exports in 1931-32 was about 55% lower than the value in 1928-29 (Shaw, 1973, p. 150). Although the closer settlement and soldier settlement schemes had put more people on the land and had greatly contributed to Australia's export economy, these schemes had ultimately resulted in the creation of a 'new peasantry' (Fitzpatrick, 1949, p.280).

Economists and agriculturists were not outspoken in their criticism of these schemes in the 1920s. Professor Wadham wrote about the boundaries of arable cultivation in Victoria (Wadham, 1930) and Professor Giblin, in his comments on the Report of the Pike Royal Commission in 1929, was critical of the lack of consideration given by the commission to possible markets for the production of the soldier settlers (Giblin, 1929). However, Giblin maintained that the problems of over production and excessive government expenditure on agriculture were the result of policy mistakes, and these problems were not merely confined to the farmers who participated in the closer settlement schemes. Various economists gave evidence or made submissions to many of the Commissions, Boards and Royal Commissions that were in operation during the 1920s and 1930s<sup>23</sup> but little notice was taken of their concerns.

The realisation that the soldier settlement scheme after the First World War had been such a failure coloured the view of agricultural economists in the late 1940s when they were again asked to assist with the War Service Land Settlement Scheme. Long-term economic forces were bringing about a decline in the proportion of the labour force employed in agriculture. Closer settlement schemes ran counter to these forces. Economists argued that authorities could not continue to put more and more people onto small sized farms given the worldwide trend to declining rural work forces and increasing size of farms. The agricultural economists also tried to dispel some of the myths associated with closer settlement. It was supposed to be beneficial to rural industries and rural towns, and 'stop the drift to the cities', but it did not actually achieve either of these objectives. The agricultural economists argued against smallholdings and stressed the need to consider more than just land and water when assessing the agricultural potential of the Australian continent (Gruen, 1949, Campbell, 1967). Campbell and Gruen (1998) particularly, argued that strict guidelines should be adhered to when implementing closer settlement schemes<sup>24</sup>. They recognised that successful rural settlement had to be in line with the long term needs of the market, and that economic losses were likely to be incurred if farm size was not adequate. Furthermore, the fact that a large proportion of primary production was exported meant that Australian agriculture had to be economically efficient, given the competitive nature of world agricultural markets.

### 2.3 Orderly Marketing/ Price Stabilisation

'Orderly marketing'<sup>25</sup> is one agricultural policy that has been consistently pursued, and encouraged, by both State and Federal governments in Australia. It refers to the operation of monopoly marketing boards, in various primary industries, where competition among sellers is limited in order to raise prices. Agricultural policy is concerned with prices received by farmers and the relative stability of those prices. Government intervention in the operation of agricultural markets increased in the 1920s when the prices of Australia's major exports fell. The basic objective of these policies was to maximise returns to producers. Farmers were to have price stability and income security through the implementation of international commodity agreements, organised marketing, cost of production surveys and price stabilisation policies. However, although this may have been a worthwhile objective, such policies merely covered up the need to deal with the real problem, which was, as Lewis (1967) pointed out, 'production instability in a most uncertain environment'. Australian 'commodity policy' (Maiden, 1960) since the 1920s placed much emphasis on the stabilisation of prices and some considered this a 'costly obsession' (Lewis, 1967).

<sup>23</sup> The Development and Migration Commission 1926 (Copland), The Wool Inquiry Committee 1932 (Brigden), The Royal Commission on the Wheat, flour and Bread Industries 1934 (Giblin)

<sup>24</sup> Gruen's 1998 article is a reflection on the work he did in agricultural economics over 25 years. His work in the NSW Department of Agriculture during 1947-1959 was mainly concerned with the implementation of the War Service Land Settlement Scheme after World War 2. He was critical of the scheme and the inadequate size of the farms given to soldier settlers.

<sup>25</sup> Aaron Sapiro in the United States introduced this term as a slogan in 1921.

During World War One, wheat farmers had experienced their first taste of organised marketing when the Federal government established compulsory wheat pools under an Australian Wheat Board. The success of these pools, and other systems of controlled marketing, was not merely in the field of price control, but also in the arrangements made for transport, insurance, distribution and finance. Many wheat farmers wanted the wartime pools to be permanent.

Wheat production had increased considerably from the mid-1890s until 1914 due to the stimulus of secularly rising export prices and the new technology associated with wheat growing<sup>26</sup>. The damaging effect of the war on European agriculture further encouraged wheat production in the newly settled regions of the world. With the ultimate return of European countries to their former level of output in the 1920s, the supply of wheat, and other primary products, far outstripped the world demand. Government reaction to the inevitable decline in export prices was to implement various protectionist policies to insulate Australian farmers from world price trends. In the 1920s and 1930s, both State and Federal governments established a range of statutory marketing authorities in the form of marketing boards with various degrees of power to acquire a part, or the total produce of an industry<sup>27</sup>. These marketing boards were able to carry out the routine functions associated with marketing of primary products such as transport, grading and storage. When dealing with large production supplies over a wide area, or where long term contracts for bulk supplies are possible, a government board may have special advantages in terms of the implementation of uniform procedures and the achievement of economies of scale. However, as monopolies, these boards often did not promote efficiency and innovation.

In Australia in the 1920s it was amazingly easy to establish a producer-controlled marketing board. In NSW, even if only 100 producers petitioned for a poll, a referendum had to be held and a bare majority of votes in favour of the proposal would result in the constitution of a board for three years. Campbell (1973) was critical of the fact that:

“No matter how absurd the proposal or how inappropriate a board may be to the resolution of an industry’s particular difficulties, the referendum must be held...(If producers are lax or disinterested, a mere third of the producers in an industry can have a board established”.

The popularity of these boards grew out of producer dissatisfaction with their economic circumstances. In addition, governments were willing to enforce the establishment of boards operated by producers because it was a relatively costless way of providing assistance to farmers. In Victoria, in 1937, the Minister for Agriculture urged voters to amend Section 92 of the Commonwealth Constitution at the forthcoming referendum so that the marketing legislation already passed by the Commonwealth Parliament to supplement State laws, would be constitutional. The Hon. E. J. Hogan believed that failure to approve the amendment<sup>28</sup> would mean the breaking down of organized marketing in Australia and a return to the ‘deplorable conditions’ that had existed previously (Hogan, 1937). If the system of orderly marketing was dismantled, Hogan argued that there would be a collapse in prices and serious losses to producers thereby bringing back the worries of the depression.

“In common justice, and as some recognition of the heroic services and sacrifices of Australian agriculturists during the years of the depression, the electors of Australia should give to the Commonwealth Parliament power to pass legislation which will ensure more remunerative returns to the producer, and minimize the risks of a recurrence of the depression” (Hogan, 1937, p.55)

Campbell believed that marketing boards had made little contribution to the improvement of efficiency in the market place yet that was the aim at the time of the original marketing-board legislation (Campbell, 1973, p.183). He argued that if government assistance to increase the market power of farmers was required, the producer monopoly was not the most effective, the most socially acceptable or the only way of providing such help (Campbell, 1973, p.188). However, Governments favoured the

<sup>26</sup> Major advances in the development of new breeds, new methods of fallowing and new fertilisers enabled drier regions to become highly productive.

<sup>27</sup> At the Federal level, fruit and dairy products came under government control from 1924, canned fruit from 1926, wine from 1929 and wheat from 1939. Much produce was still sold on the open market, and the marketing boards did not actually control the level of output.

<sup>28</sup> A referendum was being held with regard to a proposed constitutional amendment which provided that Section 92 of the Commonwealth Constitution should not apply to laws passed by the Federal Parliament with respect to marketing.

establishment of marketing boards by the industry associations and such boards were to have the power to levy all producers for the common expenses of advertising and marketing<sup>29</sup>. The boards would control the supply put on the Australian market and sell the surplus production overseas at whatever price could be obtained. Local prices could easily be raised and levy funds were used to pay bounties on exported production. Some of the customs revenue was to be used to assist with the handling and marketing abroad of Australian primary products. Professor Giblin was a strident critic of these marketing arrangements. He argued that it was not healthy for any industry to be able to raise prices without any corresponding increase in effort. He emphasised the fact that there would always be a number of marginal producers who would not be able to achieve a satisfactory return from their farms and would therefore be constantly pushing for higher and higher bounties (Giblin, 1928, p.154)

The limitations of producer-controlled marketing boards gradually became clear even though there was still some political commitment to 'orderly marketing'<sup>30</sup>. Eventually, governments, consumers and producers did change their attitudes. Governments realised that the marketing of some commodities so complex that it was completely beyond the capabilities of farmer-controlled monopoly selling boards; consumers were dissatisfied with the monopoly prices set by marketing boards, and producers began to exercise their political power in order to achieve their economic objectives, rather than use collective marketing machinery.

A price taker in world markets, the wheat industry was particularly vulnerable to volatile export prices. Growers saw organised marketing, with compulsory wheat pools and price guarantees, as the answer to their problems. Ultimately they formed their own wheat organisation in 1931, the Australian Wheatgrowers' Federation (AWF), and succeeded in obtaining radical marketing reform. The wheat trade came under the control of the AWF-dominated Australian Wheat Board<sup>31</sup> with fixed domestic prices and export price guarantees. Similar marketing arrangements were put in place for sugar and butter. As more of these products were exported, the Australian consumers carried an ever-increasing burden of high prices.

The term 'price stabilization' means many different things and can be effected in many different ways. McKay (1965, p. 33) states that price stabilization schemes include the following: guaranteed prices, two-price schemes, bounties and subsidies, protection from imports, protection from substitutes, production controls and orderly marketing. The major objective of any stabilization scheme was to provide direct financial assistance to the agricultural industry. Farmers believed that they worked in a difficult, unpredictable environment typified by natural hazards and disasters. They faced fluctuations in yields and production as well as unstable prices. Given that the natural factors were beyond their control, they felt they needed, and had a right to, government assistance to deal with excessive and undesirable price instability.

The theory of price determination generally recognises two distinct prices: market price and supply price. The supply price approximates to the cost of production, whereas the market, or demand price may be much above or below the cost of production. Market price seldom remains at a figure that will enable all producers to receive a satisfactory return on their output. Where demand is subject to great fluctuations, a policy of price stabilisation is very difficult, if not impossible to achieve (Copland, 1928, p. 8-10). Copland maintained that market prices for most commodities cannot be completely stabilised and even when it is possible, stabilisation can only be continued for short periods. This was particularly true of primary products.

The home consumption price scheme was a common marketing arrangement in Australia and ultimately was implemented in many industries. Under such a scheme the market is divided into two separate components - export and domestic - in order to raise domestic prices above export parity. The aim of these schemes was to either compensate Australian farmers for the higher domestic costs brought on by the implementation of the tariff, or to enable the higher domestic prices to subsidise exports.

<sup>29</sup> In 1924 several acts of Parliament were passed to implement this.

<sup>30</sup> According to Campbell (1973) the Country Party, the political party supposedly representing farmers at both the State and the Federal level, still had a strong and often unthinking commitment to 'orderly marketing'. Campbell thought this might result in a strong resistance to any change of attitude to marketing boards in rural areas.

<sup>31</sup> The growers themselves had the majority of seats on the Australian Wheat Board, the sole seller of wheat, and therefore became heavily involved in wheat marketing and policymaking.

Economists, economic historians and agricultural economists alike criticised these two price schemes. In 1935, Professor Giblin condemned the assistance being given to some export industries by claiming that

“The relief of one export industry by a home price must be chiefly at the expense of other export industries, which in their turn must have similar relief; and the process must be accompanied by a rising tariff to preserve the competitive power of factory production. This process seems likely to be never-ending. Relief of one industry will encourage it to expand again beyond the economic limit, and at the same time contract the limit within which other export industries can profitably function” (Giblin, 1935, p.47-48)

E. O. G. Shann<sup>32</sup>, an outstanding academic economist and historian, was a vigorous advocate of neoclassical economic principles during the interwar period. He argued for freely operating markets and was against tariff protection, agricultural subsidies, and wage fixing. He believed such policies slowed the rate of economic growth and the rate at which working class living standards could be increased. According to Snooks, Shann’s catch-cry was “that economic efficiency and growth improves the conditions of all Australians” (Snooks, 1993, p.27). In the final chapter of his well-known work, *An Economic History of Australia*, Shann reiterates his objection to price fixing schemes:

“These schemes of price manipulation one and all bespeak a hazy appreciation of the function of prices in guiding the economic use of man’s resources. Australians have too often legislated as though a price might be made at whatever figure the producer in search of an easier life chose to call “the fair thing”. But the prices that direct the goings and comings of sound prosperity are the signs by which men learn from willing buyers their changing needs. High prices encourage production where it affords a margin of profit. Falling prices discourage it by wiping out the margin or hope of profit. A government or board of control that seeks to fake the world’s prices does so at the peril of the citizens and producers whom the faked prices mislead” (Shann, 1930, p. 446-7).

Campbell and Fisher (1988) also reflected on the supposed benefits of the price stabilisation schemes introduced in the 1930s. They argued that these schemes encouraged inefficiency, sent the wrong signals to farmers, encouraged over production and inflated land values.

Overall, economists claimed price stabilisation schemes would severely distort economic activity in Australia. But their arguments were not adhered to and many resources were diverted into industries where the competitive advantage of the country was lowest, e.g. irrigated crops, dairying, sugar, and eggs. In industries where Australia did have a comparative advantage, such as wheat, the imposition of price stabilisation schemes resulted in expansion into marginal areas and a proliferation of small, uneconomic farms. The schemes discouraged innovative marketing, limited quality improvement, and induced inflation of land and livestock values. The resulting increased production was put on the world market where it was at the mercy of fluctuating world demand, and also subject to fierce competition from other primary producing countries.

Many primary producers were not keen supporters of the free or open market. The sugar industry had already revealed how an organised industry could achieve price stability through a protected local market<sup>33</sup>. With embargoes and high import duties, the industry grew and became an important large-scale export industry. Both the number of growers and the area under cultivation doubled between 1920 and 1925, and the exports were sold, under Imperial Preference arrangements, on the British market (Shann, 1930, p.439). The dried fruit and dairy industries had also shown the advantages associated with charging a high price in the home market and dumping the surplus abroad<sup>34</sup>. These industries prospered due to the higher local prices.

<sup>32</sup> E. O. G. Shann, 1884-1935, studied at Melbourne University and the London School of Economics. He worked at the University of Queensland, 1911-12, and was foundation Professor of History and Economics at the University of Western Australia 1912-1934. As economic consultant to the Bank of NSW 1931-1933 he established the first economics department in an Australian bank, and later represented the Commonwealth Government at the Ottawa Conference in 1932, and the Bank of NSW at the World Economic Conference in London in 1933.

<sup>33</sup> The sugar industry had imposed on duty on imported sugar since 1855. Any moves towards the reduction of this duty were soundly rejected on the grounds that the local industry would be destroyed by foreign imports. As the prices to growers increased, the area under sugar cultivation increased. The Commonwealth Government attempted to terminate the embargo on foreign sugar on several occasions but politically it was not possible. The ten electorates of Queensland were of paramount importance to any government wanting to be re-elected.

<sup>34</sup> Bounties were paid on the market value of dried fruits exported after 1907 and in 1925 butter-producers were paid a bounty on butter exports and a duty was imposed on butter imports.

The post war Rural Reconstruction Commission emphasised the fact that high home-consumption prices and guaranteed minimum prices were costly and inefficient methods of assistance. The Commission stated:

“No attempt should be made to cover export losses through the home-consumption price ...(Stabilisation) is to be sought through the operation of a buffer stock technique, etc. and not by the guarantee of prices; although if this fails, the Government may have to introduce a form of guaranteed price, in which event there must be production control.” (RRC, 10<sup>th</sup> Report, 1945, p191)

The dangers of interfering with the free working of the market mechanism were clearly identified. Yet policy makers did not heed the advice or follow the recommendations. Goodwin (1966) claims that there was widespread opposition to economics among politicians due in part to “misunderstanding as to the distinction between scientific economic enquiry and doctrinaire advocacy of certain policy dictates” (Goodwin, 1966, p.604). One can only conclude that the vested interests of the various commodity organisations were so strong, and the will of politicians and government departments so weak, those inappropriate policies were put in place. These policies had far-reaching effects on the subsequent economic development of the land, the structure of the economy and the composition of Australia’s international trade.

## 2.4 Tariffs

The Parliament of the newly federated Australian States passed the first tariff in 1902. It was a measure of moderate protection but it was equally intended to raise revenue for the new Commonwealth. Opinion about fiscal policy was still very divided in Australia with many people supporting the principles of free trade. From the time of that first federal customs tariff, there were repeated cries for more protection for secondary industry. With the imposition of the second tariff in 1907-8, it appeared that the battle against protection was lost<sup>35</sup>. Successive tariffs have placed higher and higher duties upon imports. By the 1920s primary industries joined the chorus. They faced increased costs of production due to the higher cost of various farm inputs and agricultural machinery. Shann (1930) claimed that the increased costs imposed on Australian primary industries by the policies of tariff protection were more deadly than those of drought. Farmers can be compensated for the effect of the drought when it ends, but since federation there has been no breaking of the tariff (Shann, 1930, p. 397).

Before the Second World War, tariff protection was the main area of economic discussion in Australia. Mills, Giblin, Benham and Brigden debated the advantages and disadvantages of the New Protectionism in the pages of the *Economic Record* in the 1920s. (R. C. Mills and F. C. Benham were academic economists from the University of Sydney, J. B. Brigden had succeeded D. B. Copland as Professor of Economics at the University of Tasmania in 1924, and L. F. Giblin was Government Statistician, Tasmania). The very open, public debate between these academics led to an increase in interest by government in the role that economists could play as advisers. Brigden was later appointed by the Australian government to head an enquiry into the Australian tariff (Brigden et al, 1929).

The Tariff Board<sup>36</sup> gave particular consideration to the needs of the primary producers and in 1925 conducted an inquiry into the agricultural implements industry. Despite having earlier given recognition to the needs of primary producers<sup>37</sup>, the Board ultimately concluded that it was impossible to imagine any secondary industry in Australia being able to carry on without protection. The nation as a whole seemed resigned to the fact that the protection of all secondary industries was the prevailing national policy, and this would not change. The fact that such a tariff policy made the cost of living high for all consumers was not considered. Before long the political leaders began to claim that the national tariff policy should be extended to primary producers as well.

<sup>35</sup> This was certainly the view of the Tariff Board. According to Mills, the Board always looked upon its functions as being to carry out, not to question, the settled policy of protection (Mills, 1927, p. 79).

<sup>36</sup> The Tariff Board was established by the Tariff Board Bill passed by the Commonwealth Parliament in July, 1921

<sup>37</sup> In 1923 the Board stated that wire-netting, fencing-wire and galvanized iron were goods absolutely essential to the primary producer starting out to bring under control and cultivation large tracts of country, much of which was in a virgin state (Comm. P.P.1923-24, Vol 11, p.1687)

Primary producers felt the burden of the tariff imposed on manufactured goods and wanted to either, reduce the tariff or extend it to primary products. Mills (1927, p.56) refers to the unrest among primary producers about the tariff and the view of some country politicians that high levels of protection afforded to secondary industry made attempts at closer settlement and immigration useless<sup>38</sup>. Primary producers became very protectionist about their own products. They argued that if farmers had to bear the burden of the tariff on secondary industry it was only reasonable that they should receive a guaranteed price for their products, paid out of general taxation revenues. Manufacturers were protected by the tariff so primary producers would be protected by bounties on exportable surplus and aids to marketing.

Brigden (1927) supported the protectionist policy. He argued that the economic capacity of the land was not great enough to support increased population. Australian agriculture had been assisted in the early years but in spite of this assistance it had not expanded sufficiently to absorb its share of total population. Manufacturing industry had to be established and in order to do that protection was necessary. The 'infant' Australian industry could not prosper unless there was protection from overseas competition and 'dumping'. According to Brigden the failures and difficulties faced by the agricultural industry were due, not to the tariff, but to natural factors such as the use of poorer, marginal lands, poor farming practices, and unsuitable climatic conditions. Benham (1927) advocated a *laissez faire* approach and although he did not want to drastically change the level of protection immediately, he felt that the ultimate goal should be free trade. He claimed that existing protection had not increased real income per head sufficiently. On the contrary, it had led to increased prices and a misallocation of resources. Labour and capital had been diverted away from primary production into manufacturing and because manufacturing was highly protected, Benham argued that there was less incentive to increase efficiency and there was encouragement for the growth of inefficient small establishments. All this resulted in a decrease in total production. Benham claimed it was preferable to keep expanding cultivation into land where yields may be lower but production overall would be greater because new labour and capital would be used on that land. Giblin (1927), as a statistician, questioned Benham's use of statistics to prove his arguments against protection and disagreed with his statistical conclusions. Giblin states:

"... in general these conclusions have no validity. This is, perhaps, not so much his fault as that of the Statisticians in the presentation of their data. But Mr. Benham reaches conclusions so opposed to common sense that one is rather surprised at his accepting them without a close scrutiny of the meaning of the figures on which they are based" (Giblin, 1927, p.148)

As mentioned above, there was a comprehensive economic inquiry undertaken in 1929 by a group of distinguished economists and statisticians, including Brigden and Giblin<sup>39</sup>. In his review of the published report Professor Jacob Viner, University of Chicago noted that the report justified the current level of protection in Australia (Viner, 1929, p. 306). Viner considered such a conclusion to be quite unexpected coming from economists who understood the fundamental arguments in favour of free trade. Upon closer examination of the report Viner concedes that the authors accept the actual propositions of free trade but 'their case for protection rests...on the argument that additional population, maintained at the given working-class standard of living, is desirable even if its support is wholly at the expense of the incomes of the land-owning and capitalist classes...' (Viner, 1929, p.308).

Protection has been the subject of political and economic debate in Australia for more than 100 years. The issue smouldered away, occasionally raging, and in that regard, it was to some extent an indictment of economics. Over a long period of time it was not possible for economists to unequivocally state whether tariffs were good or bad for Australia. The debate often became bogged down in arguments relating to the distribution of income between countries, and between labour and other factors of production. Ultimately some consensus was attained. The consensus was that substantial reductions in protection are highly desirable and should be undertaken as soon as possible. To illustrate the wide range of opinions expressed by Australian parliamentarians and to see the way attitudes change over time, compare the following extracts of speeches made by the Australian Minister for Trade in 1968 and the Australian Prime Minister in 1985, both quoted in Snape, (1997, p.3-4)

<sup>38</sup> Primary producers wanted to reduce duties on those goods, which were essential to the conduct of the agricultural and pastoral industry, such as agricultural implements.

<sup>39</sup> The inquiry into the Australian tariff was undertaken by J.B. Brigden, D.B. Copland, E.C. Dyason, L.F. Giblin and C. H. Wickens in 1929



“Tariffs have played a large part in the growth and development of Australia, but I am the first to admit that tariffs, in the broadest terms, can increase costs. We can have cheap motorcars by not having a motor vehicle industry. We can get cheap butter by not having a dairy industry. And the same applies to chemicals, footwear, television and a multitude of other items. Of course we can get these products cheaper from somewhere in the world if we have no industry at all...If seeking lower costs completely dominates our thinking, lower wages would be the most obvious area to turn to, with unemployment and a slower rate of development...We will give adequate protection, where necessary, to Australian industries which are economic and efficient.” Mr. J. McEwen, 1968

“From Australian industry we seek acceptance of the need to reduce protective walls around the small domestic market...It is enlightened self interest to recognise those protective measures impose a cost for the economy as a whole. They put upward pressure on prices in the protected market and through the rigidities and distortions which they introduce they will ultimately restrict employment and export opportunities. The educative process on the costs of protection must come predominantly from within...Successive government (in Australia) have been provided with detailed assessments of the costs and benefits of different industry policies...This has raised public awareness of the costs of protectionism, and has helped foster a more reasoned debate on industry policy.” Mr. R.J. Hawke, 1985

These two extracts indicate the opposing attitudes towards protection among politicians in the 1960s and 1980s. This same difference in attitude was evident in the period from 1920 to 1950. The rural support for protectionism during that period was based on the desire to maintain high levels of immigration which would, in turn, expand domestic markets for primary products. The primary producers also supported Imperial Preference in the British market in an attempt to secure their overseas markets; by Imperial Preference they meant protection in those markets against competition from foreign producers. Governments argued that primary producers had to be protected if Australian living standards were to be maintained, particularly with the catastrophic fall in prices that occurred in the 1930s. Assistance was provided for various products by means of the familiar high ‘home consumption price’. Gradually imperial preference was extended but this unfortunately only resulted in Australia gaining the reputation of being a bad trader (Shaw, 1973).

Throughout the 1920s, governments in Australia promoted a balanced development of primary and secondary industry. Emphasis was originally placed on rural development but the failure of this policy to generate sufficient population increase induced governments to turn increasingly to the encouragement of manufacturing industry. Government interference in the free working of the market economy increased. This interference mainly took the form of restricting the entry of manufactured goods into Australia and providing assistance to farmers to insulate them from world price trends<sup>40</sup>. By 1930 the only major primary industry not receiving significant governmental protection was wool.

Economists have generally been opposed to any policies that distort incentives and this is particularly true with regard to agriculture. Yet as economies grow they tend to increase the assistance or protection given to agriculture relative to other sectors. Standard economic theory clearly demonstrates that economic welfare is reduced by such distortionary policies. In addition, various interest groups diverted resources into either promoting or opposing those policies (Anderson and Hayami, 1986, p.1-2). Yet agricultural protection continues and seemed unlikely to disappear. Economic theory also clearly shows that protection reduces the per capita national income of a small economy. Anderson and Garnaut, (1987, p.16) claim that Australia experienced less economic growth in the twentieth century than other less protectionist industrial countries. These economists argue that economic growth in Australia was slower, in part because protection reduced competition and removed the incentives for technological innovation and domestic entrepreneurship.

In the early decades of the twentieth century economists, agricultural economists and other academics working in agriculture did not openly oppose this seemingly inevitable trend towards increased protection (in various forms) given to the agricultural industry. Professors Copland, Giblin and Shann were notable exceptions with their declared opposition to price stabilisation schemes and agricultural subsidies (see above). Other economists did not publicly espouse the advantages of free trade to any great extent. It was not until many years later that the high level of protection and regulation afforded manufacturing industry and primary producers was questioned. Politicians ultimately came to realise

<sup>40</sup> Such assistance took the form of subsidies, guaranteed prices, orderly marketing, etc

that protection was an extremely costly policy and that it is possible to gradually dismantle the non-tariff barriers to agricultural trade.

### 3. CONCLUSION

In 1923, D.B. Copland bemoaned the fact that economics received such scant consideration from the public. He felt that the public frequently confused economics with politics and that there was very little interest in discussing, in any 'academic' way, some of the important problems facing the country (Copland, 1923, p.555). At that time there were very few trained economists in either official or private life. After a late start, economics moved in the 1920s and 1930s, from a position of some neglect, to one of considerable importance and influence in business, in government and throughout public life. The same economists who guided economics to become a subject of authority and respect, had considerable interest in agricultural economics. Copland and Giblin had both academic and practical experience of agricultural issues and they made a significant contribution to the development of agricultural economics also. So much so that, by the 1970s agricultural economics had become one of the most impressive branches of Australian economics. Australian agricultural economists excelled in the scientific analysis of agricultural problems and were keenly sought as policy advisers and research officers in government, and educators at both universities and agricultural colleges. The way in which agricultural economics developed in Australia is closely linked to the public administration of agriculture in both State and Federal governments. Government intervention in agriculture has been extensive and the development of agricultural economics is inevitably related to the economic history of the period through the economic policies implemented at the time.

This paper has indicated some of the issues that were of concern to economists and agricultural economists in the early decades of the twentieth century. The way in which the subject area was defined and used in policy formulation, the appropriateness or otherwise of land settlement schemes, and the various forms of protection given to the agricultural industry were all matters of much discussion and differing opinions. The issues were complex and there were no simplistic solutions. Both economists and agricultural economists have contributed in various ways to the identification and formulation of policies to deal with agricultural problems. But until the mid 1940s and 1950s there was no formal institutionalised research in agricultural economics and there was no attempt to provide training in agricultural economics at the universities. As a result of the work of early economists such as Copland, Brigden and Giblin on various government Commissions and Inquiries, some of the banks established economic departments, the first Professor of Agricultural Economics was appointed, and the Commonwealth Bureau of Agricultural Economics was formed. State Departments of Agriculture established agricultural economics sections and the major farm organizations employed agricultural economists. Furthermore, other non-government organizations, specific private industries and general economic consultants eagerly sought agricultural economists. Agricultural economics moved into a new era and prospered.

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