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THE RURAL ADJUSTMENT SCHEME AND INTEREST GROUP THEORY

by

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Paper presented to the 38th Annual Conference of the Australian Agricultural
Economic Society, Wellington, New Zealand, February 1994.

Introduction

In this paper a method to examine the influence of interest groups in determining the provision and level of agricultural adjustment assistance is outlined. The purpose of the method is to attempt to explain assistance with reference to the political-economic market for regulation. The changes in consumer and producer surpluses that result from the policy effects on output price and quantity are estimated. The explanation is based partly on a political preference function which depends on the impacts of the subsidised credit policy. The effect this instrument has on market parameters and on the political welfare weights is estimated. Examination of the price impacts of the policy will enable the producers welfare weight (θ) in the political preference function to be estimated. The value the weight takes will assist explanation of the policy in terms of interest group activity to be made. The producer weights are estimated in part, using ex-post observations on the output price parameter to infer the values the weights take.

The method employed involves three stages. First, a factor price model is used to calculate the effects of the subsidy on the price and quantity of outputs in the industries examined. Second, a welfare economics model is used to calculate economic the transfers that result from the policy. Third, a political model of interest group activity is used to estimate producer welfare weights in a political preference function. Only the political model is shown in any detail here.

A comparative statics approach is used to estimate the policy impacts and the producer welfare weights in the political preference function. Comparative static analysis is a technique which can be used to assess the effects of an exogenous policy change, on the prices and quantities traded in the market. The general form of comparative statics analysis of policy instruments consists of changing a policy while holding all other endogenous factors in the model constant, and analysing the consequences of the policy change for variables of interest such as output price and quantity. In policy analysis involving input subsidies, it is necessary to model the output and input markets to estimate the impact of the policy upon the price and quantity of output. These results are not shown here but are needed in estimating producer welfare weights in the political preference function.

The Role of Interest Groups in Public Choice Theory

Interest groups play a central role in public choice. It is assumed that they organise to seek regulation which will advance the interests of their members. Public choice examines whether political outcomes are influenced by powerful interest groups and, if so, what form the influence takes. Regulatory outcomes are viewed as representing the

competition of a broad range of interests, each interest represented by groups of individuals.

Successful interest groups, whilst difficult to definitively define, tend to have the following characteristics:

- often they have few members, as small sized groups can impose discipline upon their membership ,
- they are often well organised which enables them to target politicians who may be able to offer support and to also deflect attention by the public or other interest groups from their activities ;
- they attempt to promote their aims and elicit political support by linking those aims to popular goals ; and
- they offset commentary or research findings that are adverse to their interests by misinformation or other appeals to public opinion

The justifications that interest groups use to obtain assistance can be crucial to the success or otherwise of obtaining that assistance. It is highly likely that the provision of assistance will be attached to goals that are held to be important by the majority of society. Assistance that is seen to be merely an income transfer will be more likely not to be supported than if the assistance is attached to some other goal like, increasing resource efficiency use. This is the case for the provision of adjustment assistance through the Rural Adjustment Scheme. Assistance is attached to obtaining a 'first-best' policy of increased efficiency or the provision of some minimum level of income for farmers. Farm lobby groups are more likely to be successful if they are arguing for assistance on the grounds of facilitating structural change rather than transferring income to their members.

Assessing the Political Economy: The Political Preference Approach

It can be asserted that in most economic assessments, the formulation and implementation of policies are viewed independently from the political process. However, political and economic markets are not independent entities. Economic outcomes result from policy formulation and implementation and political outcomes result from the interaction of economic interests in the political market. Moreover, current policies reflect a political-economic equilibrium which takes into account all the relevant forces which are represented by interest groups.

The majority of empirical applications of interest group theory have involved an examination of tariffs and other forms of regulation. Notable contributors to this area are: Magee, Brock and Young (1989). Applications of interest group theory to agriculture have been undertaken by: Rausser and Freebairn (1974), Anderson (1978),

Zusman and Amiad (1977), MacAulay and Musgrave (1982), MacAulay, Musgrave, Thomas and Burge (1985), Rausser (1982), Gardner (1983, 1987a, b) and Oelmuke and Yao (1990).

From a political economy viewpoint Rausser (1982) outlined three alternative perspectives which can be used to empirically analyse a policy. The focus could be on:

- estimating policy instrument behavioural equations directly ;
- the structure of the behaviour of all agents involved in political economic markets ; and
- specifying and estimating the structure which captures the governing policy through a political preference function.

The first approach involves hypothesising relevant 'inputs' which are responsible for the occurrence of 'output'. Inputs may include the policy instrument and other variables like lobbying costs and transaction costs of the interest groups involved, while the output is the rewards an interest group gains from the regulation. In the second approach, the interaction of those who supply and demand regulation (i.e. governments and interest groups respectively) for a particular policy instrument is estimated to determine the level of government intervention. The third approach involves estimating a political preference function which represents a criterion function for policy selection.

In this paper a combination of the first and third approaches is used to examine the interest group theory. The political preference function approach was developed by Rausser and Freebairn (1974) and Zusman (1976). Rausser (1982, 828) stated that in the political preference function approach:

' Revealed preference (of the government) is used empirically to infer the weights associated with performance measures representing the interest of various economic groups.'

It is assumed that policy choice in society is governed by a criterion function. This criterion function is a political preference function, which reflects the power and influence of interest groups in obtaining transfers (Becker, 1983). The function is made up of performance measures for each interest group. The usual representation of an interest groups performance in obtaining regulation are increases in either income and or economic surplus.

According to the political model, a government maximises a political preference function whose arguments are the weighted transfers of different interest groups. In its simplest form it is assumed that only two interest groups exist, producers and non-producers, and that their well being can be accurately measured by producer and consumer surpluses, respectively. In the function, the implicit weights placed on

producers and consumers surpluses reflect the degree to which those surpluses affect political support. The framework embraces the objectives and decision rules of government and the two interest groups. Policy represents an equilibrium outcome in political economic markets. In other words, the observed policy is the result of the structural framework or, equivalently, is the outcome of maximising the political preference function. This maximisation problem of government results in political efficiency which invariably does not correspond to economic efficiency.

While a number of alternative approaches to specifying and estimating a political preference function for a given policy maybe possible, Rausser and Freebairn's (1974) approach is the most straight forward. This approach involves the:

- selection of relevant variables as arguments ;
- determination of an appropriate mathematical structure ; and
- estimation of a set of values for the parameters of the function.

The selection of the arguments which are to be included in the preference function should reflect the performance measures which are considered important by decision makers. These will generally relate to the economic wellbeing of interest groups affected by the policy instrument. If producers, consumers and taxpayers are representative of the important interest groups in society, their interests can be represented by producer surplus, consumer surplus and the value of the policy, respectively.

According to Rausser and Freebairn (1974, 439) the appropriate mathematical structure is primarily a function of personal choice. In other words, consideration should be given to simplicity and the ultimate use of the preference function. Consequently, there is no reason to believe that a linear functional form is not an appropriate method and may be a reasonable approximation for a more complex functional form. The estimation procedure is an arbitrary choice essentially between two approaches: econometrics or comparative statics algebra. In this study a weighted aggregation of consumers and producers surpluses is used to represent the parameters in the function. The mathematical form of the function is assumed here to be a linear function. Estimates of the surpluses and the associated weights are undertaken using the comparative statics algebra approach.

Political preferences have many goals with differing weights on each goal. Interest groups attempt to change the preferences of governments. Hence, the weights attached to goals, or performance measures that relate to their well-being are constantly changing. How these weights change is a direct result of political-economic demand and supply. In an empirical specification of this relationship, political welfare weights associated with transfers taking place will be represented by a parameter, (θ) which can

either be determined ex-ante and exogenously, or derived ex-post and assumed to be determined endogenously. In the latter case the weights associated with the various performance measures will not be constant. The analysis of the interest group theory in this paper involves the measurement and change of these weights.

Operationalising the Approach Used in this Paper

The method of estimation undertaken to operationalise the approach specified above involves:

- specifying and estimating output supply and demand functions using data which includes the 'with policy' situation ;
- simulating the 'without policy' situation, by modelling the policy variable and solving for market-clearing prices and quantities using a factor price model ;
- calculating the transfers that result from the policy, using a welfare economics model ; and
- modelling the political economy of the transfers, by specifying a political preference function and using estimates for the weights attached to producers welfare to examine whether the influence of interest groups has been significant.

Only the estimated results from the two latter procedures are shown in this paper.

Estimating the Political Welfare Weights

In Gardner's (1987a) framework, the impacts of a production subsidy are conceptually the same as the impacts of a deficiency payments scheme as far as price, quantity and surplus transfers are concerned. This framework can be adapted and used to model the impacts of the credit subsidy on the political weights.

The public choice (political) considerations are represented by a relevant weighting of consumers surplus, producers surplus and taxation in a social welfare function, which is taken to be the revealed preference function of the government. This social welfare function is represented by:

$$W = CS + \theta PS - T \quad (1)$$

where:

- W is welfare ;
- CS is consumer surplus ;
- PS is producer surplus ;
- θ is the political welfare weight for producers ; and
- T is taxpayer cost ;

The consumer surplus, producer surplus and taxpayer costs are equal to:

$$CS = \int_0^{\hat{Q}} D(Q) dQ - P_d Q \quad (2)$$

$$PS = P_s \hat{Q} - \int_0^{\hat{Q}} S(Q) dQ \quad (3)$$

$$T = (P_T - P_d) \hat{Q} \quad (4)$$

where:

- $D(Q)$ is the price dependent demand function ;
- $S(Q)$ is the price dependent supply function ;
- (P_d) is the price dependent demand price ;
- (P_s) is the price dependent supply price ;
- (\hat{Q}) is the observed output with the policy ;
- (P_T) is the with subsidy price ; and
- (P_0) is the without subsidy price.

The first order condition for a maximum is obtained by substituting equations (2), (3) and (4) into (1) and setting the derivative with respect to (\hat{Q}) equal to zero. This results in:

$$W = \int_0^{\hat{Q}} D(Q) dQ - P_d Q + \theta \left[P_s \hat{Q} - \int_0^{\hat{Q}} S(Q) dQ \right] - (P_T - P_d) \hat{Q} \quad (5)$$

and differentiating with respect to observed quantity (\hat{Q}) results in.

$$\frac{dW}{d\hat{Q}} = D(Q) - D(Q) - \hat{Q}D'(Q) + \theta [S(Q) + \hat{Q}S'(Q) - S(Q)] - S'(\hat{Q})\hat{Q} - S(Q) + D(\hat{Q}) + \hat{Q}D'\hat{Q} = 0 \quad (6)$$

where:

- $P_d = D(Q)$ is the price dependent demand price as given by the inverse demand curve for output \hat{Q} ;
- $P_s = S(Q)$ is the price dependent supply price as given by the inverse supply curve for output \hat{Q} ; and
- $P_T = S(\hat{Q})$ which is equivalent to the supply price, P_s , under the policy.

Substituting P_d , P_s , and P_T into (6) then dividing through by P_s and converting $D(Q)$ and $S(Q)$ to elasticities, results in:

$$= -\hat{Q} \frac{dP_d}{d\hat{Q}} + \theta P_s + \theta \frac{dP_s}{d\hat{Q}} \hat{Q} - \theta P_s - \frac{dP_T}{d\hat{Q}} \hat{Q} - P_s + P_d + \hat{Q} \frac{dP_d}{dQ} = 0$$

$$\begin{aligned}
&= -\frac{dP_d}{d\hat{Q}} \frac{Q}{P_s} + \theta + \theta \frac{dP_s}{d\hat{Q}} \frac{Q}{P_s} - \theta \cdot \frac{dP_s}{d\hat{Q}} \frac{\hat{Q}}{P_s} - 1 + \frac{P_d}{P_s} + \frac{dP_d}{d\hat{Q}} \frac{\hat{Q}}{P_s} = 0 \\
&= \frac{\theta}{\epsilon} - 1 - \frac{1}{\epsilon} + \frac{P_d}{P_T} = 0
\end{aligned} \tag{7}$$

Equation (7) can be rearranged to yield the price ratio, in terms of the elasticities and θ .

$$\begin{aligned}
\frac{P_d}{P_T} &= -\frac{\theta}{\epsilon} + 1 + \frac{1}{\epsilon} \\
&= 1 - \frac{1}{\epsilon} (\theta - 1)
\end{aligned} \tag{8}$$

Expressing equation (8) in terms of P_T as compared to the no-program price P_0 , assumes that the supply and demand functions have a constant-elasticity, which are linear in logarithms, which over small changes is an acceptable assumption.

Consequently, equation (8) can be rewritten as:

$$\begin{aligned}
\frac{P_d}{P_T} &= \frac{P_d / P_T}{P_0 / P_0} \\
&= \frac{AQ^n / AQ_0^n}{P_T / P_0} \\
&= \frac{\hat{Q} / Q_0^n}{P_T / P_0}
\end{aligned} \tag{9}$$

where:

- AQ^n is the constant-elasticity demand function ;
- BQ^e is the constant-elasticity supply function.

If e is defined as the inverse elasticity of supply $\frac{1}{\epsilon}$, then equation (9) can be rewritten as:

$$\frac{\hat{Q}}{Q_0} = \left(\frac{P_T}{P_0} \right)^{1/e} \tag{10}$$

If n is defined as the inverse elasticity of demand $\frac{1}{\eta}$, then substituting into equation (10), results in:

$$\frac{P_d}{P_T} = \left(\frac{P_T}{P_0} \right)^{1/e - 1} \tag{11}$$

Substituting equation (11) into equation (7) and solving for P_T / P_0 , using the fact that $\frac{1}{(n/e - 1)} = \frac{e}{(n - e)}$ then:

$$\frac{P_T}{P_0} = [1 - e(\theta - 1)]^{e/(n - e)} \tag{12}$$

To examine the welfare weights of producers, θ in equation (12) must be isolated.

Rewriting (12), let $\lambda = \frac{P_T}{P_0}$ and $\psi = \frac{e}{(n - e)}$, then

$$\lambda = [1 - e(\theta - 1)]^\psi$$

Taking logs,

$$\begin{aligned} \ln \lambda &= \psi \ln [1 - e(\theta - 1)] \\ \frac{1}{\psi} \ln \lambda &= \ln [1 - e(\theta - 1)] \\ \lambda^{1/\psi} &= [1 - e(\theta - 1)] \\ \lambda^{1/\psi} - 1 &= -e(\theta - 1) \\ \frac{1 - \lambda^{1/\psi}}{e} &= \theta - 1 \end{aligned}$$

Therefore,

$$\theta = 1 + \frac{1 - \lambda^{1/\psi}}{e} \quad (12')$$

or

$$\theta = 1 + \frac{1}{e} \left(1 - \left(\frac{P_T}{P_0} \right)^{n - e/e} \right) \quad (12'')$$

Equation (12'') can be used to derive the political weighting (θ) given to producers by the government in the political preference function. Testable hypotheses can then be derived from the above analytical framework. These can be decomposed across political economic supply versus demand influences reflected in the political preference function. In this section the hypothesis to be tested is whether or not θ is greater than, equal to, or smaller than one.

Gardner assumed that the political weighting θ was exogenously determined, greater than one and constant i.e., producers welfare is given a higher weighting than consumers and taxpayers by policy makers. The producer welfare maximising optimum price and/or quantity is then derived from a given value of θ . Policy makers are assumed to favour redistribution toward producers, away from consumers and taxpayers.

In this paper a different approach is taken as the influence of interest groups is of concern. It is assumed that a political equilibrium exists and that the policy instrument level is determined endogenously. The past actual levels of the policy instrument are assumed to be optimal, and that policy makers maximised their criterion function. Using estimates of the policy effects from the factor price model on output prices and quantities it is inferred what the political weight θ for producer groups must have been in the political preference function. Using the values from the factor price model, Q_0

and P_0 (the without subsidy equilibrium quantity and price), can be estimated. The observed output market quantity and price \hat{Q} and P_T are already known, therefore substituting those values plus the elasticity values into equation (12"), it is possible to calculate θ for each industry in each year in question. Hence the change in political influence over years and over industries can be calculated. Values of θ greater than one suggest that interest group pressure by producers results in a preferred welfare weighting toward them by policy makers.

This endogenous policy determination approach to discover the political weighting of producers surpluses has been previously applied in an agricultural context by Rausser and Freebairn (1974), Zusman and Amiad (1977) and Oehinke and Yao (1990). In those studies an econometric approach was used to derive estimates of the price and quantity effects which were used to estimate the producer welfare weight θ , instead of the comparative statics approach that has been used here.

Industries to be Examined and the Period of Analysis

The wool, beef, wheat, dairy and sugar industries will be assessed in this paper, over the period from 1985-86 to 1991-92. These five industries received approximately two thirds to three quarters of the subsidy assistance in each year. The wool, wheat and beef industries were selected because of the size of the level of subsidy received by producers and the gross value of production. Wool, wheat and beef production rank as the first, second and third most valuable agricultural industries in Australia, in terms of the gross value of production. They are also the three largest recipient industries of assistance. The wool industry has received approximately 30 to 40 per cent of total assistance over the past five years. The wheat and beef industries have received 25 to 33 per cent and 12 to 15 per cent respectively during the same time period. The final two industries, dairy and sugar, were selected as they received significant levels of assistance, and second, because, their production systems are intensive and geographically concentrated. These latter characteristics are believed to assist producers in agricultural industries in their lobbying efforts, resulting in increased levels of assistance.

The data on Rural Adjustment assistance on an industry by industry basis was not available prior to 1985-86. Consequently, the data used in this study is constrained to the years from 1985-86 to 1991-92 and is shown in Table 1

Table 1 Rural Adjustment Scheme Subsidy by Industry (\$ million)

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Wool	10.1	6.7	16.2	17.5	18.1	26.2	58.1
Beef	1.9	2.9	5.2	7.0	7.2	8.4	21.0
Wheat	17.2	7.1	14.8	19.6	13.7	15.5	39.0
Dairy	8.6	3.1	2.5	2.6	4.1	3.4	11.8
Sugar	4.8	1.3	0.0	0.4	0.5	0.8	3.6
Others (a)	20.1	12.8	4.2	6.1	9.7	8.2	23.8
Total	62.7	33.9	42.9	53.2	53.3	62.5	157.3

Note: (a) includes administration costs and welfare assistance

Sources: calculated from Rural Adjustment Scheme Annual Reports (1985-86, 32-38) and (1986-87, 20-29) and written and personal communications with individual state managing authorities of the Scheme. In each state and territory:

New South Wales: Rural Assistance Authority of New South Wales

Victoria: Rural Finance Corporation of Victoria

Queensland: Queensland Industry Development Corporation

South Australia: South Australian Department of Agriculture

Western Australia: Rural Adjustment and Finance Corporation

Tasmania: Tasmanian Development Authority, and

Northern Territory: Department of Primary Industries and Fisheries

Results

The main results presented are the producer and consumer surplus changes and the producer welfare weights (θ) in the political preference function. The purpose in this section is to present and briefly discuss these results.

The estimated output prices and estimated output quantity without the policy are not shown here. The estimates of the producer welfare weights (θ) in the political preference function are shown in Table 2. The estimated producer and consumer surplus changes are shown in Tables 3 to 7 for all industries.

In summary, the impacts of the policy that subsidise credit, and which is embodied in the Rural Adjustment Scheme, are that:

Producers:

- lose from the output price reduction ;
- gain from total quantity produced increasing;
- lose from the reduction in producer surplus ;
- lose from the welfare weighting of their surpluses ; and
- gain from the subsidy.

Consumers / Taxpayers:

- gain from the output price reduction ;
- gain from total quantity produced increasing;
- lose from the reduction in consumer surplus ; and
- lose from the subsidy.

Consumers and Producers Surplus Impacts

The changes in producer and consumer surpluses that result from the policy were reported in Tables 3 to 7. The changes in the policy results in a fall in both producer and consumer surpluses over all industries except one. While the impact on beef, is positive, it is not significantly different from zero. The main reason for a reduction in consumer and producer surpluses in all the other industries examined is that the positive impact the policy has on the quantity produced is outweighed by the negative impact it has on the output price.

Producer Preference Weights

The parameter θ measures the weight given to producer welfare as compared to consumer-taxpayer welfare in the political preference function. The estimates of these weights are shown in Table 2. A value of θ equal to one suggests that policy makers are indifferent between producers and consumers in redistributing welfare. Conversely, a weight value below one suggests that policy makers discriminate against producers and above one in favour of producers. When the producers welfare weight is the same as consumers $\theta = 1$, output supply is infinitely elastic, i.e. $e = 0$, then $P_T = P_0$. If the elasticity of output demand is perfectly elastic, i.e. n approaches minus infinity, then $P_T = P_0$.

Another important aspect of the discussion of θ is finding a significant value for that parameter. In the analysis of the estimated producers political weights an important question is: What is a significant value for θ ? Is a θ value of 0.91 significant or is 1.51 significant ? Within the literature no test of significance of was found. This is a drawback of this approach.

The estimates of the producer political weights for all industries over all years assessed are all below one. Consequently, the implication of this result is that policy makers value producer transfers at a lower level than transfers to consumers. Given the policy could notionally be called a 'pro-producer' policy, as producers receive a subsidy from taxpayers, these results would seem to be counter intuitive.

The political preference function approach has been used in past studies to infer the existence of bias in policy makers criterion function toward farmers. The studies by

Rausser and Freebairn (1974), Zusman and Amiad (1977) and Oehmke and Yao (1990) confirm this result. All of those studies found in differing policy contexts, that the welfare weights of producers were higher than the weights of consumers and taxpayers.

Rausser and Freebairn (1974) reported from their estimates of policy preference functions for United States of America beef import quotas that policy makers over a ten year period weighted a two dollar increase in beef producer returns as approximately equivalent in social value to a one dollar decrease in consumer costs. The measuring stick used in both instances was the impact of the policy on output prices.

Oehmke and Yao (1990) examined government intervention in the United States of America wheat market over an eight year period through government commodity programs, stock accumulations and research expenditures. The policy instruments they examined were target prices, government sales of wheat stocks, and public research expenditure. They found that wheat producers were weighted more highly than taxpayers and consumers by policy makers. They estimated that the weight of producers places an eighty per cent premium on their surpluses relative to wheat consumers and taxpayers surpluses.

In this paper however, a reverse result was found. Namely, that policy makers do not favour producers over consumers. The primary reason for this result is the policy instrument examined in this study. Given that the producer welfare weight is a function of the output price impact, a subsidy on an input reduces the output price received by producers. Therefore, the policy impacts negatively on the economic surplus changes, resulting in reduced producer surpluses. The results are reasonable as they are consistent with these other studies and they pass the test of common sense.

Table 2 Value of Producers Welfare Weight in Political Preference Function

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Wool	0.9943	0.9967	0.9917	0.9947	0.9948	0.9921	0.9703
Beef	0.9993	0.9992	0.9988	0.9986	0.9987	0.9983	0.9964
Wheat	0.9856	0.9938	0.9852	0.9757	0.9869	0.9846	0.9575
Dairy	0.9900	0.9968	0.9974	0.9979	0.9969	0.9974	0.9911
Sugar	0.9922	0.9980	1.0000	0.9993	0.9992	0.9991	0.9969

Table 3 Wool Industry Producer and Consumer Surplus Changes

Producer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	2363.34	2933.29	4829.61	5167.61	5090.32	3675.92	2616.25
No policy (\$m)	2365.86	2935.09	4836.97	5172.67	5095.25	3681.31	2629.24
Change (\$m)	-2.52	-1.80	-7.36	-5.06	-4.93	-5.38	-12.99

Consumer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	1772.51	2199.97	3622.21	3875.71	3817.74	2756.94	1962.19
No policy (\$m)	1774.39	2201.32	3627.73	3879.5	3821.44	2760.98	1971.93
Change (\$m)	-1.89	-1.35	-5.52	-3.79	-3.69	-4.04	-9.74

Table 4 Beef Industry Producer and Consumer Surplus Changes

Producer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	2864.99	3215.84	3649.99	3947.30	4182.21	4644.81	4476.30
No policy (\$m)	2864.99	3215.83	3649.97	3947.27	4182.19	4644.76	4476.11
Change (\$m)	0.00	0.01	0.02	0.03	0.02	0.04	0.19

Consumer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	1146.00	1286.33	1459.99	1578.92	1672.89	1857.92	1790.52
No policy (\$m)	1146.00	1286.33	1459.99	1578.91	1672.88	1857.91	1790.45
Change (\$m)	0.00	0.00	0.01	0.01	0.01	0.02	0.07

Table 5 Wheat Industry Producer and Consumer Surplus Changes

Producer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	1687.43	1541.48	1260.09	1862.95	1732.33	1242.95	1262.52
No policy (\$m)	1690.35	1542.66	1262.32	1868.22	1735.05	1245.23	1268.45
Change (\$m)	-2.92	-1.18	-2.23	-5.27	-2.72	-2.29	-5.93

Consumer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	1687.43	1541.48	1260.09	1862.95	1732.33	1242.95	1262.52
No policy (\$m)	1690.35	1542.66	1262.32	1868.22	1735.05	1245.23	1268.45
Change (\$m)	-2.92	-1.18	-2.23	-5.27	-2.72	-2.29	-5.93

Table 6 Dairy Industry Producer and Consumer Surplus Changes

Producer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	1479.31	1706.12	1830.44	2107.49	2238.67	2129	2448.76
No policy (\$m)	1490.31	1710.18	1834.04	2110.81	2243.79	2133.17	2464.92
Change (\$m)	-11.00	-4.06	-3.60	-3.32	-5.13	-4.17	-16.15

Consumer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	1972.41	2274.83	2440.59	2809.98	2984.89	2838.66	3265.02
No policy (\$m)	1987.07	2280.24	2445.38	2814.41	2991.72	2844.23	3286.55
Change (\$m)	-14.66	-5.42	-4.80	-4.43	-6.83	-5.56	-21.53

Table 7 Sugar Industry Producer and Consumer Surplus Changes

Producer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	941.61	1163.00	1233.74	1530.97	1756.11	1502.24	1193.46
No policy (\$m)	945.95	1164.36	1233.74	1531.64	1757.00	1503.07	1195.67
Change (\$m)	-4.34	-1.36	0.00	-0.67	-0.89	-0.84	-2.21

Consumer Surplus

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
With policy (\$m)	627.74	775.33	822.49	1020.65	1170.74	1001.49	795.64
No policy (\$m)	630.63	776.23	822.49	1021.09	1171.33	1002.05	797.11
Change (\$m)	-2.89	-0.91	0.00	-0.45	-0.59	-0.56	-1.47

Table 8 Overall Net Welfare Losses of the Rural Adjustment Scheme by Industry and in Total (\$ million)

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Wool	14.51	9.85	29.08	26.35	26.72	35.62	80.83
Beef	1.90	2.91	5.23	7.04	7.23	8.46	21.26
Wheat	23.04	9.46	19.26	30.14	19.14	20.08	50.86
Dairy	34.26	12.58	10.90	10.35	16.06	13.13	49.48
Sugar	12.03	3.57	0.00	1.52	1.98	2.20	7.28
Total	85.74	38.37	64.47	75.40	71.13	79.49	209.71

Compiled from Tables 1,3,4,5,6,7. Note: This is an underestimate of the welfare impact of the policy due to the excluding of "Others" in Table 1 from the calculations.

Summary

The results of this paper tend to refute the public choice view that regulation occurs and continues in response to the benefits that narrowly focused special interest groups receive from regulation. Producers are not the main beneficiaries from the policy. The impacts of the Scheme results in the output price and producer surpluses being reduced. The estimated weights of producers welfare embodied in the political preference function mean that policy makers would appear to favour consumers, rather than producers. However, producers do benefit as they receive the subsidy and they gain as the quantity of output rises. It could have been expected that, if the theory held, the groups that successfully lobby for assistance would receive increases in economic indicators such as, prices, surpluses and the level of subsidy.

The National Farmers Federation (1993, 124), the peak association of Australian farm organisations, supports the provision of adjustment assistance through the Rural Adjustment Scheme. Given that producers appear to lose from the Scheme's provision a relevant question to ask is: Why do producers lobby for the Scheme when they clearly are not net gainers from its provision?

As the individual producer interest groups are silent on the costs of the Scheme to them, it is possibly safe to assume that they do not perceive themselves to be detrimentally affected by the Scheme. Or, alternatively, is it that they believe that they benefit from the Scheme? It is probably fair to assume that consumers do not perceive any reduction in their surpluses as a result of the policy. Bureaucrats obtain power and control of the Scheme, individual State governments receive money and power as a result of their administration of the Scheme, whilst the Commonwealth government reduces the political heat upon itself by being seen to be 'doing something'. Perhaps these are some of the reasons why the Scheme continues.

Given that the interest group most affected i.e. producers loses, it would appear that the theory does not explain the provision of the Rural Adjustment Scheme. The theory implies that interest groups have perfect knowledge and are only motivated by self interest. If this were true, it is unlikely that an interest group like the National Farmers Federation would support and lobby for the Scheme.

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