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Promotion of the agricultural sector and political power in Austria - a revision[*)]

Klaus Salhofer, Markus F. Hofreither and Franz Sinabell[**)]

Abstract

A common public choice explanation for government transfers to agricultural producers is that in the rent-seeking game the well-organized, small group of farmers is able to exert higher political pressure than the large, heterogeneous groups of consumers and taxpayers. So far, the role of other groups of producers in this rent-seeking game has been neglected. Based on expert interviews, this paper demonstrates that, for the Austrian corporatist system, not only farmers, but also upstream and downstream industries, have strong formal and informal influence in the agricultural policy decision-making process while consumers, taxpayers, and voters have not. These findings are further discussed from two different perspectives: the Chicagoan view resting on the "Efficient Redistribution Hypothesis" and the Virginian view assuming an inefficient outcome of the political bargaining process. By employing an empirical model we were able to confirm the dominating role of farmers as well as upstream and downstream industries by showing the magnitude of rents transferred to them. Alternatively, measuring the political weights of the different groups brought about similar results. The observed policy outcome can be viewed as a compromise among farmers and the agribusiness in order to increase their benefits subject to budgetary constraints.

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1 Introduction

Policy intervention in agricultural commodity markets is a common phenomenon in industrialized countries. Though there have been notable national as well as international efforts to reform farm policy, agriculture still remains one of the most regulated sectors.[1] According to the OECD (1997:14) transfers associated with agricultural policies in OECD countries amounted to US$ 297 billion in total, or US$ 334 per capita in 1996. A common public choice explanation for this considerable wealth redistribution from consumers and taxpayers to the farm sector is that in the rent-seeking game the well-organized, small group of farmers is able to exert higher political pressure than the large, heterogeneous groups of consumers and taxpayers (Sarris and Freebairn, 1983; Oehmke and Yao, 1990). However, this explanation underestimates the range of interests involved in the agricultural policy decision-making process. Groups clearly affected by agricultural policy are upstream (agricultural input) and downstream (food and fiber) industries. Surprisingly, their role in the formation of agricultural policy is relatively neglected in the literature (Brooks, 1996).

This paper contributes to this literature by analyzing the influence of upstream and downstream industries on agricultural policy in the Austrian corporatist model, before EU accession. In section 2, the agricultural policy decision-making process is described, using information from expert interviews. These interviews indicate that farmers as well as upstream and downstream industries have considerable formal (institutionalized) and informal influence in the political process.

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[1] Widely recognized examples in this respect at national levels are the CAP reform of 1992 as well as the reform of US agricultural policy under the FAIR Act 1996, and at the international level the GATT Uruguay Round Agreement in 1994.

In utilizing an empirical model, which is presented in section 3, these findings are further discussed from two different perspectives: the 'Virginian school' of public choice and the 'Chicagoan school' of political economy (Pasour, 1992). According to the Virginian view, interest groups use their influence in the political process to push government towards market regulations that provide rents to them, with consequent high social costs. In section 4, an attempt is made to verify this empirically, for the Austrian agribusiness sector, by calculating the wealth transfers and social costs of rent seeking associated with agricultural policy. According to the Chicagoan view, inefficiency and waste in the political market cannot be an equilibrium phenomenon, because all agents in the political economy are self-interested. Government is assumed to redistribute wealth among interest groups efficiently according to the political power these groups are able to exert. In section 5, an attempt is made to verify that groups with more and stronger influence channels in the decision-making process are able to exert more political power, by employing a political preference function approach. Finally, in section 6, the results are discussed and directions for further research are identified.

2 Formal and informal structure of the decision-making process

In order to obtain a general insight into the policy formation process, 27 people including politicians, agro-industrial managers and observers of Austrian agricultural policy were contacted, in December 1994.[2] Eleven representatives, none of whom were from agribusiness, agreed to be interviewed.

These interviews supported the view that the Austrian economic system can be characterized by a corporate model. The specific institution in which different interest groups

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[2] More detailed results of these interviews are reported in Hofreither, Salhofer and Sinabell (1996).

can find a consensus is called "Social Partnership", which is an informal network including the Chamber of Commerce, the Chamber of Employees, the Chamber of Agriculture[3], and the Austrian Labor Union. The influence of this institution, which advises the government and plays a coordinating role in the political decision-making process, is considered to be very strong. All Austrian enterprises, including farm enterprises, as well as employees and workers, are legally required to become a member of their respective chamber and pay membership fees equivalent to a small fraction of revenues and salaries.

The most important decisions concerning agriculture are made by the Minister of Agriculture. These decisions, however, are the result of a balanced interaction of formally involved institutions, as well as interest groups acting via informal channels. One of these channels is the weekly "agricultural summit", chaired by the Minister of Agriculture. It is held in order to coordinate short term strategies of the Agricultural Ministry with the other main bodies in this field, which comprise the head of the Chamber of Agriculture, delegates of the Austrian Farmers' Union, and a representative of the umbrella organization of Raiffeisen-Cooperatives which have a dominant position in important upstream and downstream markets.

Only measures coordinated within the Social Partnership have the chance to be approved by the Council of Ministers. Decisions have to be made unanimously here before bills are passed on to the parliament. In the past, the Austrian Parliament has ratified agrarian bills without substantial amendments. The role of the Minister of Finance (member of the Social Democratic Party) is perceived as important, but in many cases it is kept in balance by the countervailing political power of the Minister of Agriculture (who belongs to the People's

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[3] Without loss of generality the "Standing Committee of Presidents of the Chambers of Agriculture" is termed "Chamber of Agriculture" in the remainder of the paper.

Party, the minor partner of the coalition government) and the Chamber of Agriculture (headed by a People's Party member of parliament).

The Chamber of Agriculture is the second most important body in the Austrian agricultural policy arena. Formally, its role is representing farmers' interests in the Social Partnership. In fact, its main activity is to give expert opinions on a variety of bills, and to play an active part in the pre-formulation of bills in cooperation with the agricultural bureaucracy. Interestingly, the private Raiffeisen-Cooperatives are members of the Chamber of Agriculture as well. Therefore, the Chamber of Agriculture, being primarily the representative of farmers, not only tries to pursue policies favoring farmers, but has also to represent the interests of substantial parts of upstream and downstream industries.

Practically all members of parliament who are farmers, as well as officials of the Chamber of Agriculture, are members of the board or the top management of important cooperatives. This combination of activities not only helps to reduce information costs and maintain the loyalty of farmers and industry, but may also give opportunities to individuals for careers in the agribusiness when their political careers are over. The role of the well organized Raiffeisen-Cooperatives in the decision making process is ambiguous. Although they are owned by farmers they seem to pursue mainly their own interests.[4]

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[4] When Raiffeisen-Cooperatives were founded (many of them some 90 years ago) farmers definitely benefited from becoming members. Nowadays, however, being a member is no longer a club good. In fact, a farmer has not to be a cooperative member if he wants to buy inputs or sell products nor does he profit by a more favorable price. Farmers being members do not get any dividends and may sell the shares only at face value. Given these facts hardly any advantage can be found from being a cooperative member. The corresponding political attitudes of members and the Raiffeisen management may help to explain why farmers refrain from resigning their membership.

Besides the two main actors, the Minister of Agriculture and the Chamber of Agriculture, the Austrian Labor Union has considerable influence on agricultural policies. The high priority of agricultural issues in this organization is due to the fact that in some downstream industries (e.g., milk, starch and sugar) almost 100% of the employees are union members. Many of them are organized in a subdivision of the Social Democratic Party, therefore both partners of the Austrian coalition government were exposed to pressure of groups favoring price policies. Due to the fact that food imports were restricted and processed food exports were subsidized, food processors as well as workers in these industries had no reason to object higher input prices.

The third member of the Social Partnership, the Chamber of Commerce, does not in general oppose agricultural support policy. This is explained by the fact that Raiffeisen-Cooperatives are members of this chamber too. The fourth member of the Social Partnership, the Chamber of Employees, has the responsibility of taking an active role in representing consumer interests. However, the intention of reducing the gap between domestic prices and world market prices seems to be neutralized by the fact that the representatives of this Chamber are exposed to countervailing pressure from those members who are agribusiness employees.

Taxpayers or voters were never mentioned during the interviews. This fact supports the assumption that their interests are underrepresented when agricultural issues are being dealt with in the Social Partnership,[5] and in other institutions that have substantial influence on agricultural policies.

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[5] Similar observations with respect to other activities of this institution are made by Van der Bellen (1994).

3 Modeling the political economy of the Austrian agribusiness sector

3.1 Modeling economics

The bread grains sector was chosen for the empirical model, as this segment of the Austrian farm sector is highly subsidized and comparably input-intensive. Austrian agribusiness relating to bread grains is represented by a three-stage, vertically-structured model. As depicted in Figure 1, in the first stage supplies of agricultural input factors (labor, land, machinery and buildings, and operating inputs) are described by constant elasticity functions.

Since 95% of agricultural land in Austria is owned by farmers, and 86% of the labor force is self-employed, these two resources are assumed to be offered solely by farmers. Machinery and buildings and operating inputs are provided by the upstream industry. In the second stage, input factors from the first stage are used to produce bread grains assuming a Cobb-Douglas technology. In the third stage, downstream industries combine bread grains and nonagricultural inputs (machinery and buildings, and labor) to produce food. Bread grains not used for food production are either used in livestock production or exported.

Since land for producing high quality bread grains is limited to favored areas, it was assumed to be a fixed factor. To estimate all other supply elasticities single-equation structural regression models were combined with time-series analysis (Salhofer, 1997). The quantity of inputs supplied (e.g., of operating inputs) was assumed to be a log-linear function of the price of the inputs and other observed influence variables (e.g., the labor cost in the operating inputs industry). Time series with at least 28 observations were used to estimate the parameters, utilizing ordinary least squares (OLS) procedures. In an attempt to avoid possible specification problems, different combinations of shift variables were tested, and the error term was modeled as an autoregressive moving average (ARMA). For simplicity, only first and second order ARMAs were inspected. The parameters of the structural model and the parameters of the time

series model had to be estimated simultaneously to prevent a loss of efficiency. The "best" ARMA solution was selected using the Akaike information criterion and the Schwartz criterion. The estimation procedure used could be viewed as a specific type of a transfer function model with restrictions on the lags of the exogenous and endogenous variables.

The factor shares for producing bread grains as well as food were obtained by estimating Cobb-Douglas production functions with constant neutral growth rates. Since, for both estimated production functions, increasing returns to scale were detected, a test on coefficient restrictions was applied. The null hypothesis of constant returns to scale was not rejected for the food industry but rejected in the case of bread grains production.

Economic theory predicts that demand for a commodity is a function of all prices and income. Since estimation of a complete demand system would exceed the scope of this research, the elasticity of demand for bread grains products is taken from an elaborated study by Wüger (1989). Similarly, the demand for bread grains for feeding purposes would ideally be estimated in a system including own prices as well as prices of all substitutes and complements. Based on duality theory and weak seperability, Neunteufel and Ortner (1993) derive own-price and cross-price elasticities of feed cereals from cost functions.

Table 1 summarizes both the parameters derived by estimations and those found in the literature. Using these elasticities, the model is calibrated in order to match averages of the prices and quantities over the period 1991 - 1993.

The farm sector is assumed to be competitive. This assumption is justified by the large number of firms producing bread grains and by the fact that farmers take prices set by

government.[6] Input industries and the food industry are composed of an heterogeneous group of firms. The input factor 'machinery and buildings' represents all durable investment goods. Operating inputs include fertilizer, pesticides, seeds, fuel, lubricants and so on. The food sector comprises wholesale buyers, mills, as well as the bread, noodle and bakers' ware industries. Due to this diversity, market structure is hard to define and is therefore described by a variable oligopoly. Since the model is log-linear, oligopoly-pricing behavior can be described by a markup over marginal cost. This markup (ψ) is defined by a conjectural variation model:

(1) $\psi_i = 1+(1+\lambda_i)/(M_i \eta_i)$, with i = food industry, operating input industry, agricultural machinery and buildings industry,

where λ is the conjectural variation term describing expectations about competitors' behavior, M is the number of identical firms in the industry, and η is the elasticity of demand.

Different λ's correspond to different oligopoly theories. An assumption of $\lambda = 0$ corresponds to the Cournot conjecture. The markup is determined by the number of firms and ranges between the monopoly markup (if M = 1, $\psi = 1+1/\eta$) and the zero markup in the competitive situation (if M = ∞, $\psi_i = 1$). An assumption of $\lambda = -1$ corresponds to the Bertrand conjecture and hence also implies the competitive outcome. If $\lambda = M-1$, the outcome is collusion and hence equal to the monopoly outcome. Given a negative demand elasticity, it is necessary that $|M\eta| \geq 1$ in the case of $\lambda = 0$ and $|\eta| \geq 1$ in the case of $\lambda = M-1$ in order to derive a market equilibrium at positive prices. Hence, ψ is a number between zero and one. If

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[6] In 1990 about 82,000 farms produced wheat and about 43,000 produced rye.

for example $\psi = 0.5$ the price for a unit of food is twice as high as marginal cost of producing this unit.

In this study, two extreme situations are scrutinized: perfect competition in agricultural input and food industries ($\psi_i = 1$) and the most imperfect situation possible for each industry (lowest ψ_i), given the demand elasticities and the three possible values of λ.[7] The lowest derived ψs are 0.167 for food industry, 0.764 for machinery and buildings industry, and 0.865 for operating inputs industry.

Given our findings in chapter 2 that Raiffeisen-Cooperatives seem to behave rather similar to the other not collectively owned firms we are assuming profit maximizing behavior for both downstream as well as upstream industries.

3.2 Modeling politics

Following our findings, in Section 2, that in the case of agriculture interest groups rather than voters are the main demanders of government actions in political markets, policy formation may be simplified as a bargaining process between interest groups and government. In such a case, the political economic equilibrium depends on the coercive power of the state, groups' social (political) power and influence relations (Zusman, 1976).

Since the bargaining process often leads to enforceable agreements among players (see, for example, the U.S Farm Bill or the EU CAP reform), cooperative game theory has been argued to be a plausible approach in explaining agricultural policies (Zusman, 1976; Beghin, 1990). Following the theory of social power and influence (Harsanyi, 1962) Zusman (1976)

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[7] Note that input demand elasticities for operating inputs (-7.4) and agricultural machinery and buildings (-4.2) can be derived from the bread grains production function.

showed that the Nash-Harsanyi cooperative solution to the corresponding bargaining game is that the political economy behaves as if it aims to maximize a political preference function (PPF). The PPF is a weighted sum of the interest groups' welfare, where the weights reflect the interest groups' political power.[8] The policy outcome is identical to that which would be brought about by a central planner maximizing a weighted social welfare function. Therefore, cooperation between players implies an efficient political process and hence a Pareto efficient policy.

The view of an efficient political economy is closely related to the Chicagoan school of political economy (Becker, 1983). According to Becker's "Efficient Redistribution Hypothesis", government strives to redistribute wealth between interest groups in an efficient way. If there was a policy that could make at least one group better off without harming any other group, at least one group would support such a policy and no group would oppose it.

According to non-cooperative game theory the solution of a bargaining game need not be Pareto efficient, especially if imperfect information is assumed (Binmore, Osborne and Rubinstein, 1992).[9] An inefficient outcome of the political bargaining process is a cornerstone in the Virginian school of public choice (Buchanan and Tullock, 1962). In the traditional rent-seeking literature, interest groups employ lobbying and other forms of political influence to push government towards market regulations that provide rents to these groups (Tullock, 1967, Krueger, 1974). This leads to socially wasteful competition since resources are devoted to rent-seeking activities rather than being productively used elsewhere.

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8 To some extent a popularity function (Frey and Lau, 1968; Frey and Schneider, 1978), based on utility-maximizing voters and government, can be viewed as the voter-government-interaction counterpart of a PPF.

9 In the context of agricultural policy explicitly non-cooperative bargaining games are used to model international settings (e.g., GATT negotiations) rather than to explain policy formation within a country (Johnson, Mahe and Roe, 1993; Kennedy, Witzke and Roe, 1996).

The difference between these opposing views of the political economy is illustrated in Figure 2 for the case of two interest groups: farmers (F) and nonfarmers (N). Let's assume that initially welfare (U) is distributed equally and efficiently between group F and group N in point A. Then suppose that group F is able to achieve enactment by the government of a rent creating proposal (such as a floor price policy) that increases its welfare, while reducing that of group N by a still larger amount; this results in a different welfare distribution like that shown in point B. If group N can also achieve rent legislation (e.g., a consumer subsidy), from the Virginian point of view a possible new distribution will occur in point C leaving perhaps both groups (but certainly society as a whole) worse off (Mitchell and Munger, 1991). Points like C cannot be an equilibrium for the Chicagoan school, since no group would oppose and at least one group would support a policy that creates a welfare distribution on the Pareto frontier between point D and E. The actual welfare distribution depends on the political power the two groups are able to exert. If group F is able to exert a higher political pressure than group N, point G might become the final welfare distribution.

Whether observed policies are Pareto efficient or not is discussed in some depth in recent research (Gardner, 1987; Bullock, 1995). This study does not dwell on this question but rather tries to analyze the findings reported in section 2 quantitatively, from both the Chicagoan and the Virginian view.

4 Transfers and social costs from rent seeking

Government intervention in Austria's bread grains market is illustrated in Figure 3. D_{fo} is domestic demand for bread grains for food production: D is the total domestic demand for bread grains including demand for feeding purposes. S is the domestic supply, and W is foreign demand/supply, being perfectly elastic at the prevailing world-market price because of the

small-country assumption. Farmers obtain a high floor price (P_{QD}) for a specific quota Q_Q. Quantities in excess of this quota can be delivered at a reduced net floor price P_E. Food processors have to buy bread grains at the high price P_{QD}, while the price of bread grains for feeding purposes is the reduced floor price P_E. Therefore, domestic demand for bread grains for food production is Q_D, domestic demand for feeding purposes is $Q_E - Q_D$ and exports are $Q_X = Q_S - Q_E$.

According to the rent-seeking literature the market interventions enacted by the government are motivated by interest groups' expected wealth transfers. The rents caused by market intervention are computed by means of standard welfare measures for the two extreme cases (perfect and imperfect competition) and for three different groups: bread grains farmers, the agricultural input industry, and the food industry (Table 2). The results confirm that not only farmers, but also upstream and downstream industries, benefit considerably from market regulations. The food industry acquires the highest rents (ATS 1,413 million or 5.76% of the consumption value of processed bread grains in the case of perfect competition and ATS 2,563 million or 10.45% in the case of imperfect competition) followed by agricultural input suppliers and farmers. Hence, the fact that upstream and downstream industries capture lucrative wealth transfers indicates their eminent influence in the political process.

Social costs caused by government's market intervention can be measured by the change in total economic surplus. These deadweight losses are estimated to be ATS 6,466 million (26.36%) assuming perfect competition, and ATS 5,109 million (20.63%) assuming imperfect competition.[10] Following Tullock (1967) and Posner (1975), the Harberger triangles

[10] Note that the amount ATS 5,109 million does not measure the social costs of imperfect competition in upstream and downstream industries, but rather the social costs of government intervention in the agricultural market given that upstream and downstream industries are imperfectly competitive. Since

underestimate the social costs of rent seeking since the acquired rents may be spent to maintain a favorable position. In the extreme case when all gained rents are dissipated, the social costs of rent seeking equal transfers plus deadweight losses amounting to ATS 9,795 million (39.93%).

Harberger triangles and Tullock/Posner rectangles give a lower and upper bound of the social costs of rent seeking. In comparison to other studies of rent seeking (for example, Lopez and Pagoulatos, 1994) the differences between Harberger social costs and the Tullock/Posner social costs estimated here are smaller because the allocative inefficiency in the bread grains market is large (Salhofer, 1996). The actual magnitude of dissipation depends on risk aversion, the number of bidders, imperfect information, and returns to scale (Tullock, 1993: 63).[11] Apart from these factors there is some evidence that in the case of the Austrian bread grains market the actual cost of rent seeking are closer to the lower estimates. The reason is that the contribution of bread grains farmers to the budgets of the Agricultural Chamber and the Austrian Farmers Union is approximately 5% of the wealth transferred to them. Membership fees of upstream and downstream firms for their representative bodies in the Social Partnership are virtually negligible.

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the costs of intervention (related to budgetary expenditures and excessive consumer prices) are the same and fixed for both market structures assumed, and transfers to upstream and downstream industries are higher in the case of imperfect competition, social costs are higher in the perfect competition case.

11 Some authors have also discussed the possibility that rent seeking may exceed the Tullock/Posner estimates (Magee, Brock and Young, 1989), but Tullock (1993, p. 63) argued that this hypothesis is unlikely to hold, because interest groups soon realise that they are engaged in a game which lowers their expected net wealth.

5 Political power weights

From an efficient (cooperative) bargaining game perspective the political economy behaves as if it aims to maximize a political preference function:

$$(2) \quad \max_{\mathbf{x}} \ \text{PPF} = \sum_{1}^{n} p_i w_i(\mathbf{x}, \mathbf{b}),$$

where p_i represents interest groups political weight, and $w_i(\mathbf{x}, \mathbf{b})$ is the welfare level of group i, depending on a policy instrument vector **x** and exogenous market parameters **b** (Bullock, 1994). Government policy **x** is the endogenous outcome of the political process. The implemented policy depends on exogenous market parameters, the absolute magnitude of groups' welfare level and their strength in the political process. Therefore, if the actual policy and induced group welfare levels are known (i.e., calculated using an economic model), one can reveal political weights of each group through utilizing first order conditions (Rausser and Freebairn, 1974).

The maximization problem (2) has two sides (Bullock, 1994). There is a substitution side reflecting policy-makers' political willingness to favor one interest group over another. There is also a transformation side reflecting the possibilities for government to redistribute welfare among groups by changing its policy. In Figure 2 the substitution side of the political economy is represented by political indifference curves (PIC). The slope of a PIC represents the policy-makers marginal rate of substitution (MRS) between farmers and nonfarmers welfare, and is $-p_F/p_N$, a relative political economic shadow price (Rausser, 1982). The slope of the Pareto frontier in each point shows the marginal rate of transformation (MRT). The first order conditions of the maximization problem (2) implies that government is able to maximize its preferences when MRS = MRT, or the highest attainable PIC is tangential to the Pareto frontier. Since political preferences (and hence political weights) reflected in the slope of a PIC

are not directly observable, PPF studies commonly use the first order conditions to estimate political power weights indirectly by measuring the marginal rate of transformation (the slope of the Pareto frontier in point C). Hence, if the examined policy is not Pareto efficient, it is not possible to measure political power weights. Therefore, PPF studies are based on Becker's "Efficient Redistribution Hypothesis". In order to secure that the investigated policy is Pareto efficient, PPF studies have to assume that the number of interest groups equals the number of policy instruments minus one (Bullock, 1994).

Following this procedure, the political process is modeled by assuming that government has three policy instruments (floor price P_{QD}, reduced price P_E, and contract quantity Q_C) to redistribute wealth between four interest groups (bread grains farmers, agricultural input suppliers, food suppliers, and consumers/taxpayers). The results reveal that welfare of farmers is weighted more highly than that of consumers/taxpayers but less than welfare of upstream and downstream industries (Table 3). The ranking is the same, no matter if perfect or imperfect competition is assumed.

The robustness of the results is examined in a sensitivity analysis for the case of perfect competition, illustrating the sensitivity of the estimated PPF weights relative to the values of model parameters. The elasticities of the PPF weights with respect to these parameters are shown in Table 4. The value of 0.12, for example, indicates that a 1 % change in the supply elasticity of farm machinery and buildings implies a 0.12 % increase in agricultural input suppliers political weight.[12] Therefore, doubling the farm machinery and buildings supply elasticity from 0.959 to 1.918 would increase agricultural the political weight of input suppliers

[12] Note that if the influence of a 1 % change in the level of a parameter is less than 0.005%, it is reported as 0.00%.

by 12 % from 2.73 to 3.06. With the only exception of the demand elasticity for food, the levels of political power weights are relatively insensitive to changes in model parameters.

6 Discussion

According to Tullock (1983: 2) the major reason for income transfers is simply the fact that the recipients would like to achieve them, provided they have the political power to succeed. In accordance with this position, a major explanation for government intervention in agricultural markets is that the well-organized and influential farm lobby has been able to exert enough political pressure to influence policy in its interests. However, so far, the role of other groups of producers in this rent-seeking game has been neglected. Based on expert interviews, this paper demonstrates that, for the Austrian corporatist system, not only farmers, but also upstream and downstream industries, have strong formal and informal influence in the agricultural policy decision-making process while consumers, taxpayers, and voters have not. Representatives of farmers and agribusiness are resolving conflicting interests in cooperation. A practical outcome of such a collusion of influential groups is strong resistance against agricultural policy reform. Downstream as well as upstream industries would loose production volumes if farmers were supported e.g. via lump sum payments instead of higher product prices.

By employing an empirical model we were able to confirm the dominating role of farmers as well as upstream and downstream industries by showing the magnitude of rents transferred to them. Alternatively, measuring the political weights of the different groups brought about similar results. So, there is evidence for the hypothesis that both farmers as well as upstream and downstream industries have considerable political influence and are able to make use of it.

The observed policy can be viewed as a compromise among farmers and the agribusiness in order to increase their benefits subject to budgetary constraints.

Unexpectedly, however, both analytical approaches indicated that upstream and downstream industries benefited considerably more (had stronger political power) than farmers. Such a result is notable because supporting agribusiness is not an official objective of agricultural policy. According to Salhofer (1997) the wealth transferred to farmers could have been redistributed at considerably lower social costs. The above mentioned cooperation mechanism, however, seems to have prevented such a policy as this would have caused a considerable deterioration in the welfare position of upstream and downstream industries.

The analysis carried out in this paper is static in the sense that it deals with the situation in a particular period, notwithstanding the fact that the system is dynamic, evolving continuously over time. The steady decline of the number of farmers should weaken their political power compared to the time when the Social Partnership was established. Furthermore, accession to the European Union had notable consequences for individual producer behavior as well as the market structure in this sector and, hence, may have caused changes in the position and relative strength of interest groups. In this context, a question is whether the results of this paper could have become obsolete. The answer is quite clearly ”no”.

First, despite the declining number of farmers, the institutions set up at the time when farmers represented a large share of the population seem to be resistant against gradual changes. Second, with respect to the domestic situation in the agricultural sector, joining the EU has not led to a fundamental shift of agricultural policy. Only moderate adaptations with respect to the number and level of administered market prices, production-linked premiums, or protection measures for certain inputs have been observed. Hence, from a rent-seeking point of view, the present situation is not fundamentally different from the situation before. Therefore, a

substantial part of the pressure hitherto concentrated on policy makers in Austria remains as it was before the accession to the EU. Third, adding an extra level of institutions with ”Brussels” does not necessarily imply that the existing power and interest structure will change. Experience suggests that the weights of the interest groups revealed in the above analysis are simply mirrored at the European level.

The intended agricultural policy change formulated in the AGENDA 2000 may eventually lead to further steps in the process of liberalizing agricultural markets. It is quite likely that the rents of producers, as well as processors of bread grains will diminish. However, at the same time, it is unlikely that markets like milk and sugar will be treated the same way. This indicates that some groups are able to shelter their influential position while others are not. In order to explain such differences across sub-sectors, an enhanced model considering horizontal linkages between output markets, the vertical integration within the sector as well as differences in farm sizes is needed.

An unanswered question is how much of the rent transferred is in fact dissipated. In the corporatist system of most Western European democracies, interest groups have continuous and institutionalized access to the political decision-making process. Hence, monetary lobbying contributions do not play the same role they do in the disjoint pluralistic system of the U.S. Therefore, it may be hypothesized that in a corporate model rents are dissipated to a lesser degree.

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Table 1. Summary of derived parameters

Parameter	Value	Parameter	Value
Bead grains production		**Food production**	
Factor share of land	0.756	Factor share of machinery and buildings	0.393
Factor share of machinery and buildings	0.194	Factor share of labor	0.388
Factor share of labor	0.362	Factor share of bread grains	0.219
Factor share of operating inputs	0.384	Supply elasticity of machinery and buildings	0.959
Supply elasticity of land	0.000	Supply elasticity of labor	0.603
Supply elasticity of machinery and buildings	0.959	Supply elasticity of bread grains	implicitly given
Supply elasticity of labor	3.186	**Demand**	
Supply elasticity of operating inputs	1.157	Demand elasticity of food	-0.600
		Demand elasticity of feed	-1.041

Table 2. Wealth transfer and social costs of rent seeking

	perfect competition		imperfect competition	
	in million ATS (percent of domestic consumption)			
Bread grains farmers	743	(3.03)	743	(3.03)
Agricultural input industry	1,174	(4.78)	1,380	(5.63)
Food industry	1,413	(5.76)	2,563	(10.45)
Harberger social costs	6,466	(26.36)	5,109	(20.63)
Tullock/Posner social costs	9,795	(39.93)	9,795	(39.93)

Table 3. Political weights

	perfect competition	imperfect competition
Bread grains farmers	1.29	1.29
Agricultural input industry	2.73	2.11
Food industry	3.87	2.13
Consumers and taxpayers	1.00	1.00

Table 4. Sensitivity analysis

	Bread grains farmers	Agricultural input industry	Food industry
Bread grains production			
Factor share of land	0.00	0.00	0.00
Factor share of machinery and buildings	0.00	-0.04	0.00
Factor share of labor	0.00	-0.12	0.00
Factor share of operating inputs	0.00	-0.09	0.00
Supply elasticity of land	0.00	0.00	0.00
Supply elasticity of machinery and buildings	0.00	0.12	0.00
Supply elasticity labor	0.00	0.08	0.00
Supply elasticity of operating inputs	0.00	0.35	0.00
Food production			
Factor share of machinery and buildings	0.00	0.00	-0.13
Factor share of labor	0.00	0.00	-0.10
Factor share of bread grains	0.00	0.00	-0.06
Supply elasticity of machinery and buildings	0.00	0.00	0.30
Supply elasticity of labor	0.00	0.00	0.03
Demand			
Demand elasticity of food	0.00	0.00	1.35
Demand elasticity of feed	0.00	0.12	0.00

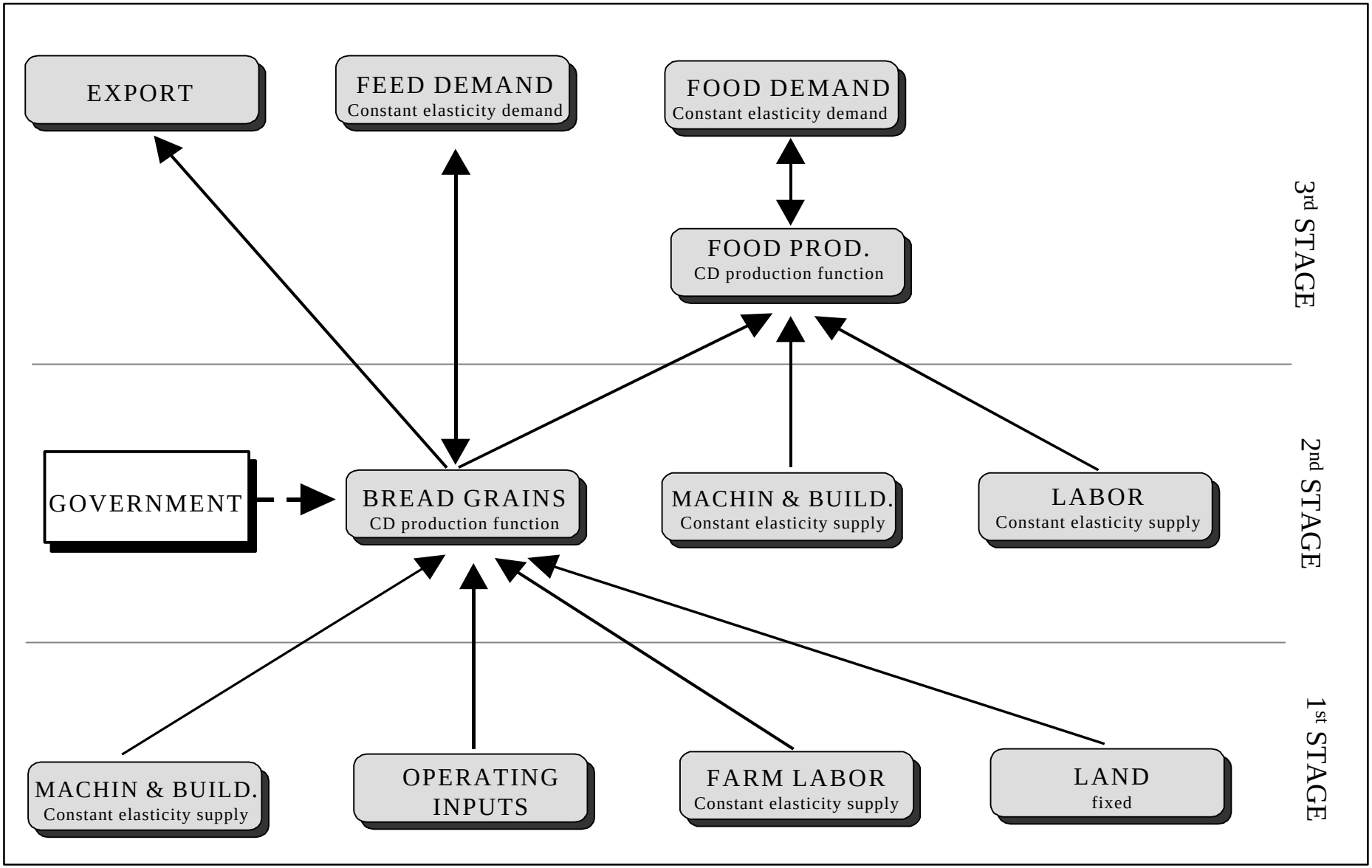

Figure 1: Model structure

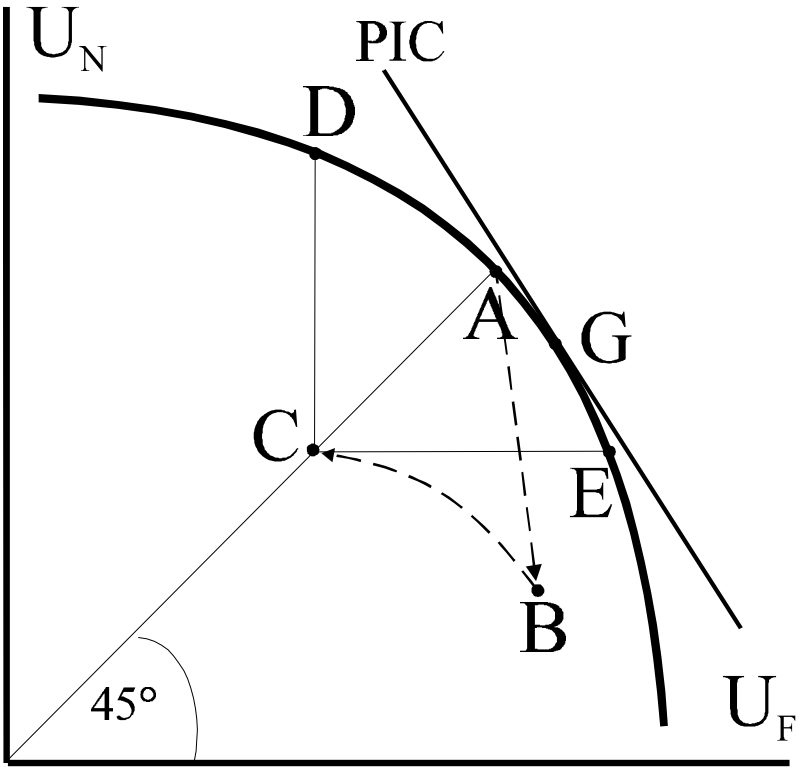

Figure 2. Chicagoan versus Virginian view of political economy

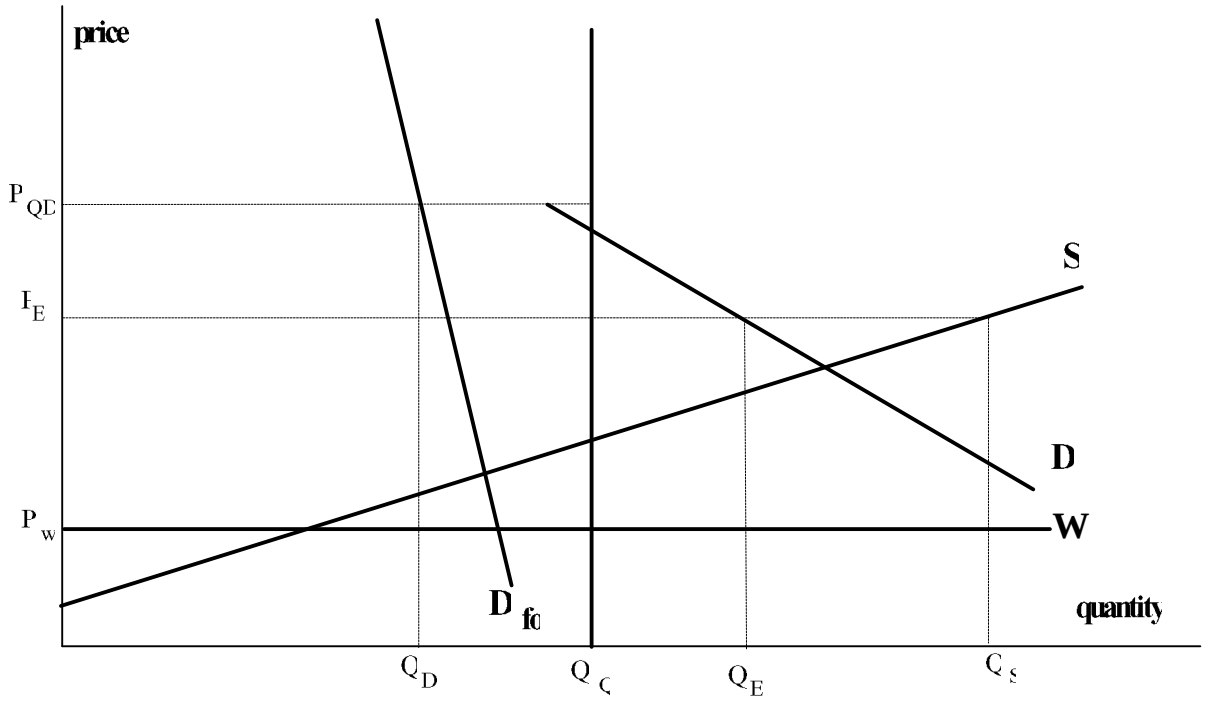

Figure 3. Austrian bread grains market