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Partisan views on the economy*

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Abstract. In this paper it is argued that political parties may have incentives to adopt a partisan view on the working of the economic system. Our approach is based on a dynamical spatial voting model in which political parties are policy oriented. This model revolves around two interrelated issues x and y. The policy maker sets x directly. There exist two views on the relationship between x and y. Model uncertainty confronts policy makers with the problem of the selection of a model to base their actions on. We show that if voters have imperfect information about the working of the economic system that model selection contains a strategic element. Policy makers are inclined to adopt a view on the working of the economic system which fits in with their preferences.

> There is no inherent logic that places monetarists to the right of New Economists. They have different models of economic mechanism, but they need not have different political values. A conservative can be a Keynesian and a liberal a monetarist. These combinations are in fact surprisingly rare.
> James Tobin, 1974, *The New Economics One Decade Older*, p. 62.

1. Introduction

The economic literature offers a large variety of models of the economy. These models often differ in the predictions of the effects of policy variables on target variables. So far, statistical analyses have not been able to show convincingly the superiority of one of the existing models. One could argue that reality is too complex to be captured by a single model. Alternatively, one could argue that a correct model exists, but has not been discovered yet. In any case, at present decision makers are confronted with model uncertainty.

As to economic policy, the presence of model uncertainty raises basically two questions. First, how should policy makers take account of model uncertainty when forming optimal policy? This question has received much attention in the literature. Brainard (1967) shows that uncertainty about the effects of instruments on targets should lead to a conservative use of instruments. Christo-

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doulakis and Van der Ploeg (1987) demonstrate how conflicting views on the same system can be pooled into a compromise model. Once the compromise model has been derived, the policy problem can be formulated as a standard optimisation problem. An alternative treatment of model uncertainty is to assign probabilities to each model being correct. The policy problem then amounts to maximizing a weighted utility function, with the probabilities serving as weights (Frankel and Rockett, 1988; Ghosh and Masson, 1991; and Holtham and Hughes Hallet, 1992).

The second question is how do policy makers actually deal with model uncertainty? This question has hitherto received little attention. There is some consensus that policy makers differ in their views on the economy and that these views are connected with their political preferences (Christodoulakis and Van der Ploeg, 1987). In the U.S., Republicans seem to have more faith in the invisible hand than Democrats and less faith in government intervention (Harris, 1962 and Tufte, 1978). An explanation for this phenomenon is lacking, however, as is expressed by the following quotation:

> There is no inherent logic that places monetarists to the right of New Economists. They have different models of economic mechanism, but they need not have different political values. A conservative can be a Keynesian and a liberal a monetarist. These combinations are in fact surprisingly rare (Tobin, 1974:62).

This paper provides a possible explanation for the existence of partisan views on the economy that is based on the need of political parties for selling partisan policies to imperfectly informed voters. We present a model consistent with the notion that political parties differ in their views on the economy. The key elements of the model are adopted from two strands in the economic literature.

First, this paper is related to the rapidly growing literature on partisan models of economic policy. In partisan models, political parties have different preferences over economic goals, because they represent different constituencies (Hibb, 1977). Wittman (1977, 1983) shows that when election outcomes are uncertain and political parties have different preferences, their policies diverge. The implications of partisan models of economic policy conflict with those of traditional Downsian models which are based on the assumption that political parties solely aim at winning elections. Traditional models predict that the policies of political parties converge. Considerable evidence exists indicating that economic outcomes do differ under different political parties. For the U.S., Beck (1982), Chappell and Keech (1988) and Hibbs (1986) find that unemployment tends to decline under Democratic administrations and that inflation tends to fall when a Republican is in the White House. These findings clearly

conflict with the predictions of traditional models but are consistent with the predictions of partisan models. In the present paper, we consider a two-party system. In line with the empirical results discussed above, we assume that political parties have partisan motives.

Second, this paper is related to the public-choice literature on spatial voting models. Even political parties merely interested in policy implementation pursue office, for office is a means of achieving desirable policies. For this reason, partisan models should include a description of voter behaviour. In this paper, we assume that voters are rational in the sense that every voter votes for the party which, if elected, will offer him the highest expected utility. The median voter determines which political party wins the elections. However, there is uncertainty about the preferences of the median voter. As a consequence, no platform ensures office, so that election outcomes are surrounded with uncertainty (Alesina, 1988 and Mitchell, 1987).

This paper deviates from earlier literature on politico-economic models in that model uncertainty is introduced. We assume that there exist two rival models of the system which differ in the predictions of the effects of policy on targets. Models uncertainty confronts political parties and voters with the problem of assigning probabilities to each model being correct. Policy makers need a perception of the system to base their actions on and voters need a perception to evaluate expected policies of political parties. In this paper, we assume that *ex ante*, political parties have the same view of the system: they have the same prior beliefs about the two models. These prior beliefs are exogenous and might be regarded as the "objective" probabilities of each model being true (Ghosh and Masson, 1988). Voters do not know these prior beliefs and have no compelling motives to acquire information about them (see Downs, 1957 and Mueller, 1989 on rational ignorance). However, voters know political parties' preferences and are able to infer the probability weights the incumbents assigns to each model from implemented policy. In the model presented in this paper, voters base their view of the system on the view underlying current policy. This leaves room for the incumbent party to affect voters' view by basing policy on probability weights which deviate from its actual prior beliefs about the models. In doing so, the incumbent party can increase its chances of reelection. In this paper, it is shown that political parties are inclined to adopt a view on the system which deviates from their actual view and fits in with their preferences.

This paper is organised as follows. The next section discusses the environment in which political parties operate. To highlight the key elements of our model, we ignore a number of potentially important aspects of government behaviour. We focus on a two-party system lasting two periods. We exclude the entry of a third party, assume that all voters vote and ignore passive or active learning about the system. In addition, we make simplifying assumptions for

technical reasons. As in most previous studies on model uncertainty, the preferences of political parties (and voters) are represented by quadratic utility functions and the constraints imposed by the system are linear. In Section 3, we investigate the decision problems faced by political parties. In particular, we examine why and when political parties do adopt a partisan view on the system. In Section 4, we present a numerical example of our model, illustrating that the effects of the adoption of partisan model might be substantial. Section 5 concludes this paper.

2. The model

We consider a two-party system, with party ℓ and r, which lasts two periods. At the beginning of the second period elections are held after which the winning party takes office. The model revolves around two interrelated problems or issues; x and y. Political parties are only concerned with the outcomes of x and y. The extension to a model in which political parties also attribute utility to being in office per se is straightforward and does not affect the main conclusions of this paper. The preferences of each political party are represented by a linear-quadratic function defined on y and x:

$$U_\ell = -\sum_{t=1}^{2} q^{t-1}.[y_t + \tfrac{1}{2}.\beta_\ell.x_t^2] \qquad 0 < q < 1 \qquad \beta_\ell > 0 \tag{1}$$

$$U_r = -\sum_{t=1}^{2} q^{t-1}.[y_t + \tfrac{1}{2}.\beta_r.x_t^2] \qquad \beta_r > 0 \tag{2}$$

where β_ℓ (β_r) represents the costs party ℓ (r) attaches to deviations of x from zero, q is the discount factor assumed the same for both parties, and t is the time index. Eq. (1) represents party ℓ's preferences and (2) represents party r's preferences. The preference functions only differ in the relative weight attributed to x and y. Throughout this paper, it is assumed that party r attaches higher costs to deviations of x from zero than party ℓ ($\beta_r > \beta_\ell$). The preference functions are linear in y_t which implies that given x_t, the lower is y_t, the higher is parties' utility. The linear-quadratic utility assumption is made for convenience. Similar preference functions can be found in monetary policy models where y refers to unemployment and x refers to inflation (Persson and Tabellini, 1990).

The policy maker sets x directly, while y is affected by x. The effects of x on y are uncertain (e.g., uncertain Phillips curve). There are two conflicting views on the relationship between y and x:

$$\text{model 1: } y_t = r_1.x_t + s_1 \qquad r_1 < 0 \tag{3}$$

$$\text{model 2: } y_t = r_2.x_t + s_2 \qquad r_2 < r_1 < 0. \tag{4}$$

The parameters of the two models, r_1, r_2, s_1 and s_2, are fixed and known. The assumption that $r_2 < r_1 < 0$ is made to facilitate the discussion of the results, but does not alter the tenor of the conclusions of this paper. What matters is that $r_1 \neq r_2$. At the time that policy is decided, the true model is unknown. As a consequence, policy makers must use probabilities that one of the two models is correct. In the present paper, these probabilities play an important role. Let us indicate π ($0 \leq \pi \leq 1$) the (internal) prior beliefs of the political parties that model 1 is correct and $(1-\pi)$ that model 2 is correct. Furthermore, let π_ℓ (π_r) denote the probability announced by party ℓ (r) that model 1 is correct. One of the main objectives of this paper is to show that partisan motives ($\beta_\ell < \beta_r$) may lead to the adoption of partisan views on the working of the system ($\pi_\ell \neq \pi_r$). In this paper, the adoption of a partisan view is understood to mean that a political party *announces* prior beliefs about the model which deviate from its *actual* prior beliefs, and that current policy is based on the announced (or external) prior beliefs. If policy makers had different prior beliefs about the two models this would directly lead to the adoption of partisan views. Obviously, this would be the result of different prior beliefs, rather than the result of partisan motives. For this reason, we assume that the two political parties have equal prior beliefs. In addition, we assume for simplicity that π is exogenous and stable over time. Thus we ignore passive and active learning.

Our way of treating model uncertainty is based on Christodoulakis and Van der Ploeg (1987). Model uncertainty confronts policy makers with the problem of the selection of a model to base their actions on. Eq. (3) and (4) should be interpreted as the reduced-form equations derived from rival complicated systems. Statistical analyses are assumed not to be able to show the superiority of one of these systems. As a consequence, policy makers must assign probability weights to each model being true.

As mentioned before, at the beginning of period 2 elections take place. Voters are forward looking. They are informed about the preferences of political parties and about the announced prior beliefs of political parties about the two models (π_ℓ and π_r). However, voters do not know the actual prior beliefs of political parties (π). Following Alesina (1988) and Alesina and Rosenthal (1989), we assume that political parties cannot make binding commitments. In this respect, we deviate from numerous previous studies which are based on the assumption that policy makers keep their promises (see, e.g., Wittman, 1983 and Calvert, 1985). In this setting, rational voting decisions are based on the policies political parties are expected to follow in period 2.

Each voter votes for the party which, if elected, offers him the highest expected utility. Thus voter i casts his ballot for party ℓ if

$$U_{i,\ell} > U_{i,r} \tag{5}$$

where $U_{i,\ell}$ ($U_{i,r}$) is voter i's expected period 2 utility if party ℓ (r) wins the elections.

Voters, like the political parties, have quadratic-linear preferences defined on x and y. If party j wins the elections expected utility is given by:

$$\begin{aligned} U_{i,j} &= -y^e_{j,2} - \tfrac{1}{2}.\beta_i.x^{e}_{j,2}{}^2 \qquad j = \ell,r \\ &= -\pi_{v,i}.(r_1.x^e_{j,2} + s_1) - (1-\pi_{v,i}).(r_2.x^e_{j,2} + s_2) - \tfrac{1}{2}.\beta_i.x^{e}_{j,2}{}^2 \end{aligned} \tag{6}$$

where $x^e_{j,2}$ and $y^e_{j,2}$ are the expected values of x_2 and y_2, respectively, if party j is elected.[1] Furthermore, $\pi_{v,i}$ represents voter i's beliefs about the two possible models and β_i is the weight voter i attributes to x. Throughout this paper, we assume that all voters have the same prior beliefs: $\pi_{v,i} = \pi_v$.

From (5) and (6) it follows that at the elections, voter i casts his ballot for party ℓ if

$$\pi_v.r_1.(x^e_{r,2} - x^e_{\ell,2}) + (1-\pi_v).r_2.(x^e_{r,2} - x^e_{\ell,2}) + \tfrac{1}{2}.\beta_i.(x^{e}_{r,2}{}^2 - x^{e}_{\ell,2}{}^2) > 0. \tag{7}$$

Voters differ in the preference weight they attribute to x. We assume that there is a continuum of voters in terms of β_i and that all voters vote so that the median voter determines which party wins the elections. As in Wittman (1983), Calvert (1985) and Alesina (1988), the election outcomes are surrounded with uncertainty. The median voter's preference weight, β_m, is not known with certainty. The distribution of β_m is assumed to be uniform over $[\beta^e_m - e, \beta^e_m + e]$ where β^e_m is the expected preference weight of the median voter and e is the half-width of the distribution.

Let P_ℓ denote the probability that party ℓ will win the elections. From (7) it is easy to see that, provided that $x^e_{\ell,2} > x^e_{r,2}$, P_ℓ is equal to the probability that[2]

$$\beta_m < -2 \cdot \left\{ \frac{\pi_v.r_1 + (1-\pi_v).r_2}{x^e_{\ell,2} + x^e_{r,2}} \right\}. \tag{8}$$

Thus P_ℓ is equal to the area under the distribution function of β_m to the left of (8):

$$P_\ell = P_\ell(x^e_{r,2}, x^e_{\ell,2}, \pi_v) = \tfrac{1}{2} - \frac{\beta^e_m}{2.e} - \frac{\pi_v.r_1 + (1-\pi_v).r_2}{e.(x^e_{\ell,2} + x^e_{r,2})}. \tag{9}$$

Of course, the probability that party r will win elections is equal to $(1-P_\ell)$. The probability function P_ℓ exhibits a well-known feature of spatial voting models. Its first derivatives to $x^e_{r,2}$ and $x^e_{\ell,2}$ are negative which implies that if

the (expected) policy of one party moves towards the policy of the other party, it increases its chances of winning the elections.

The introduction of model uncertainty into voting models raises two issues. First, model uncertainty confronts voters, like political parties, with the problem of the selection of a model to base their actions on, π_v. In general, we may expect that voters have little information about the working of the system. The concept of model uncertainty adopted in this paper leaves no scope for learning about the system on the basis of past outcomes. Moreover, as argued by Downs (1957), rational voters do not expend much time gathering information, because each vote has a negligible probability of affecting the election outcomes. For these reasons, voters will rely on information readily available, such as the information supplied by the political parties (π_ℓ and π_r). At this point, it makes sense to distinguish information provided by the incumbent party and information provided by the opposition party. If, for example, the incumbent party announces that model 1 is the true model while it bases policy on model 2, no voter will believe the announcement. Credibility of the announcement requires at least that a party acts according to it. By nature, the opposition party does not face such a constraint. However, the opposition party is not able to enforce its announcement either. Given this asymmetry between the incumbent and opposition party, it seems natural to assume that voters attribute higher weight to a credible announcement by the incumbent party than to the announcement by the opposition party. In this paper, we assume that π_v is based on the implicit probability that model 1 is correct if it emerges from policy in period 1.[3] Thus if in period 1 policy is based on, let us say, π^*, we get $\pi_v = \pi^*$.[4] This assumption implies that the party, being in office in period 1, is able to affect voters' view on the working of the system.

A second issue raised by model uncertainty concerns the determination of the policies political parties are expected to follow when elected, $x^e_{\ell,2}$ and $x^e_{r,2}$. In period 2, the incumbent does not face an election constraint and thus can simply follow its most preferred policy. As a consequence, the incumbent has no incentive to deviate from its actual prior beliefs about the two possible models. Thus in period 2 policy is based on π. By assumption, voters do not know π, but only know π_ℓ and π_r. We assume that voters' predict policy makers' prior beliefs by simply extrapolating the views policy makers would have adopted, when in office, in period 1. Hence voters ignore the strategic implications of the behaviour of the incumbent party. This implies that the expected policy of a party is a function of its announced beliefs about the possible models and that the priors announced by one party do not affect the expected policy of the other party, $\partial x^e_{\ell,2}/\partial \pi_r = \partial x^e_{r,2}/\partial \pi_\ell = 0$.[5]

The above assumptions are made for simplicity and are more restrictive than necessary. In fact, the assumptions attribute some irrationality to voters, for they imply that voters ignore possible strategic behaviour of political parties

concerning the selection of π_ℓ and π_r. As a consequence, voters predictions for period 2 policy will generally not come true. However, all the results of this paper still hold if policy makers were forced to adhere to their announced prior beliefs, so that in period 2 policy would be based on π_ℓ or π_r. In such a setting, voters expectations come true.

3. Partisan views on the system

In the previous section we have described the environment in which political parties operate. A central aspect of the environment is that voters do not observe the actual prior beliefs of political parties about the two alternative models describing the working of the system. This leaves room for a political party to adopt a view on the system being at variance with its actual view. In this section, we show why a political party has an incentive to do so and which view on the system it will adopt. To this end, we examine the policy problems faced by political parties. First, let us consider the policy problem in period 2.

In period 2, the party in office does not face an election constraint and has consequently no incentive to deviate from its actual prior beliefs. Thus the incumbent party will simply follow its most preferred policy, which results from maximising:

$$U_{j,2} = -\{\pi.[r_1.x_{j,2}+s_1] + (1-\pi).[r_2.x_{j,2}+s_2] + \tfrac{1}{2}.\beta_j.x_{j,2}^2\} \quad j=\ell \text{ or } r \qquad (10)$$

with respect to $x_{j,2}$, yielding:

$$x_{j,2} = -[\pi.r_1+(1-\pi).r_2]/\beta_j. \qquad (11)$$

Eq. (11) shows that in period 2, policy depends linearly on the multipliers of the two models weighted by the priors reflecting the actual beliefs of the political parties about the models, π. Since $\beta_\ell < \beta_r$, we have $x_{\ell,2} > x_{r,2}$.

Let us now consider the first period. Suppose that party ℓ is in office. In period 1, party ℓ selects policy, $x_{\ell,1}$ and its (announced) view, π_ℓ, $x_{\ell,1}$ is based on. Maximising utility amounts to maximising:[6]

$$\begin{aligned} W_\ell = {} & U_{\ell,1}(x_{\ell,1},\pi) + q.\{P_\ell(x^e_{\ell,2},x^e_{r,2},\pi_v).U_{\ell,2}(x^e_{\ell,2}) \\ & + [1-P_\ell(x^e_{\ell,2},x^e_{r,2},\pi_v)].U_{\ell,2}(x_{r,2})\} \end{aligned} \qquad (12)$$

where

$$\begin{aligned} U_{\ell,1}(x_{\ell,1},\pi) = {} & -\{\pi.[r_1.x_{\ell,1}+s_1] + (1-\pi).[r_2.x_{\ell,1}+s_2] \\ & + \tfrac{1}{2}.\beta_\ell.x_{\ell,1}^2\}. \end{aligned} \qquad (13)$$

$P_\ell(x^e_{\ell,2}, x^e_{r,2}, \pi_v)$ is given by (9), with $x^e_{\ell,2} = -[\pi_\ell.r_1 + (1-\pi_\ell).r_2]/\beta_\ell$ and $\pi_v = \pi_\ell$, provided that policy in period 1 is based on π_ℓ. $U_{\ell,2}(x_{r,2})$ is given by (10), for $j = \ell, r$, and $U_{\ell,2}(x_{r,2})$ denotes the utility party ℓ receives when party r wins the elections. Eq. (12) expresses that party ℓ maximises the discounted utility over period 1 and 2. The first term of (12) refers to period 1 utility. The second term denotes period 2 utility which is equal to the probability that party ℓ wins the elections times the utility from implementing $x_{\ell,2}$ plus the probability that party r wins the elections times the utility received from $x_{r,2}$ (Wittman, 1983). In spite of the two-period structure of the optimisation problem, the model is static in the sense that policy in one period does not directly affect utility in the other period. This implies that, in the absence of strategic behaviour as to the selection of a view on the system, $x_{\ell,1}$ can be derived from maximising (13) with respect to $x_{\ell,1}$, yielding:

$$x_{\ell,1} = -[\pi.r_1 + (1-\pi).r_2]/\beta_\ell. \tag{14}$$

However, there is an indirect effect of policy in period 1 on period 2 utility, which runs through the probability function $P_\ell(x^e_{\ell,2}, x^e_{r,2}, \pi_v)$. As discussed in the previous section, the incumbent party can affect the probability of winning elections by announcing a proper view on the working of the system, $\pi_\ell.\pi_\ell$ affects $P_\ell(.)$ through its effect on voters' view on the system, π_v, and through its effect on the policy party ℓ is expected to follow in period 2, $x^e_{\ell,2}$. By assumption, the announced π_ℓ is only credible if the incumbent party acts according to it. Thus in case of strategic behaviour of the incumbent party as to model selection, policy in period 1 is given by:

$$x_{\ell,1} = -[\pi_\ell.r_1 + (1-\pi_\ell).r_2]/\beta_\ell \tag{15}$$

where $x_{\ell,1}$ is the policy most preferred by party ℓ given π_ℓ.

Now that the policy rules (11) and (15) have been derived, we can proceed with the determination of the optimal value of π_ℓ. Two questions have to be answered. First, why should a political party adopt a view on the system – and act according to it – which is at variance with its actual view. Second, which view on the system does a political party adopt?

To answer these questions, it is convenient to analyze the effects of π_ℓ on the period 1 utility and period 2 utility separately. Let us first consider period 1 utility which is represented by the first term of (12). By assumption, the adoption of a partisan view, $\pi \neq \pi_\ell$, only affects outcomes if in period 1 policy is based on π_ℓ. Thus the adoption of a partisan view forces the incumbent party in period 1 to base its actions on "wrong" prior beliefs about the two models. Of course, costs are involved with basing policy on wrong priors. The reduction of period 1 utility, resulting from a deviation of π_ℓ from π, can be regarded as

the costs of adopting a view of the system. By inserting (15) in (13) and differentiating with respect to π_ℓ, we find the "marginal costs" of the adoption of a partisan view, C_{π_ℓ}:

$$C_{\pi_\ell} = [\pi_\ell - \pi].[r_2 - r_1]^2/\beta_\ell. \tag{16}$$

Eq. (16) shows that marginal costs of π_ℓ are zero when $\pi_\ell = \pi$. Furthermore, (16) reveals that the more the adopted view deviates from the actual view, the higher are the costs.

Now consider period 2 utility which is represented by the second term of (12). In period 2 policy is based on π, irrespective of which party wins the elections. Due to this a change in π_ℓ only affects period 2 utility through its effect on $P_\ell(.)$. Differentiating the second term of (12) with respect to π_ℓ leads to the following expression, R_{π_ℓ}:[7]

$$R_{\pi_\ell} = \left\{ \frac{q.(r_2 - r_1).x^e_{r,2}}{e.(x^e_{\ell,2} + x^e_{r,2})^2} \right\}.[U_{\ell,2}(x_\ell) - U_{\ell,2}(x_r)]. \tag{17}$$

Since x_ℓ maximises $U_{\ell,2}(.)$ and $x_{\ell,2} \neq x_{r,2}$, we know that party ℓ prefers its own policy to the policy of party r:

$$U_{\ell,2}(x_{\ell,2}) - U_{\ell,2}(x_{r,2}) > 0.$$

This implies that the sign of R_{π_ℓ} is determined by the effect of π_ℓ on the probability function $P_\ell(.)$ which is given by the term in braces in (17). Since $r_2 - r_1 < 0$, a rise in π_ℓ decreases the probability that party ℓ wins the elections. Hence party ℓ can increase period 2 utility by reducing π_ℓ.[8] This is the source of party ℓ's incentive to adopt a view on the system which deviates from its actual view: $\pi_\ell < \pi$ increases the probability that in period 2 its most preferred policy is implemented. Eq. (17) can be interpreted as party ℓ's marginal benefits of attributing a lower weight to model 1. In a similar way, we can derive that when party r is in office in period 1, it can increase period 2 utility by selecting a view, π_r, for which $\pi_r > \pi$ holds.

What is the intuition behind these results? In our model, parties are policy oriented. Nevertheless parties are interested in winning the elections, since winning elections enables them to implement their most preferred policies in period 2. In parties' struggle for votes, they try to convince voters of the advantages of their policies. Voters know that under party ℓ x will be higher than under party r. For every voter the costs of using x are known, but the benefits of using x, in terms of its effect on y, are uncertain. Information about the effects of x on y is supplied by the parties. In doing this, they realise that voters trade the benefits of x against the costs of using x. As a consequence, party ℓ,

favouring a higher value of x than party r, has an incentive to emphasize that x is an effective mean to reducing y. This is supported by model 2 which predicts a high negative effect of x on y. In contrast to party ℓ, party r tries to convince voters that a conservative use of x is optimal. Given voters' preferences, the smaller are the benefits of using x, the lower are the optimal values of x. Thus party r has an incentive to attribute a high prior to the model, predicting a low negative effect of x on y.

Finally, we must determine which view on the system political parties adopt. In selecting π_p, party ℓ trades benefits against costs of adopting a partisan view. Party ℓ chooses π_ℓ at the point where marginal benefits equal marginal costs, $R_{\pi_\ell} = C_{\pi_\ell}$.[9] From (16) and (17) it is easy to derive that π_ℓ becomes:[10]

$$\pi_\ell = \pi + \frac{q.\beta_\ell.x^e_{r,2}}{e.(x^e_{\ell,2}+x^e_{r,2})} \cdot \frac{[U_{\ell,2}(x_{\ell,2})-U_{\ell,2}(x_{r,2})]}{r_2-r_1} . \tag{18}$$

In a similar way, we can derive the view on the system that party r would adopt when in office in period 1:

$$\pi_r = \pi - \frac{q.\beta_r.x^e_{r,2}}{e.(x^e_{\ell,2}+x^e_{r,2})} \cdot \frac{[U_{r,2}(x^e_{\ell,2})-U_{r,2}(x_{\ell,2})]}{r_2-r_1} . \tag{19}$$

From (18) and (19) its easy to see that $\pi_\ell < \pi < \pi_r$. Thus in our model, partisan preferences lead to the adoption of partisan views on the working of the system. Two properties of (18) and (19) are worth mentioning. First, the higher is the discount factor, q, the bigger is the difference between the adopted view and the actual view of political parties. Second, the more polarised are political parties, the more polarised are their adopted views on the system. The idea behind the two properties is simple. An increase in the discount factor implies that political parties attribute higher weight to period 2 utility. Due to this, winning the elections becomes more important. Polarisation also makes winning the election more important. The benefits of the adoption of a partisan view run through the probability function of winning elections. Hence the benefits of adopting a partisan view increase.

4. A simple numerical example

In the previous section we have discussed a simple political model in which political parties adopt a partisan view of the economic system which fits in with their preferences in order to increase their chances of reelection. By assumption, the adoption of a partisan view only makes sense if the party in office acts according to it. In our model the adoption of a partisan view increases partisan

Table 1. Simulation results

	party ℓ	party r
$x_{i,1}$	1.12	0.26
$x_{i,2}$	1.00	0.50
π_i	0.44	0.74
π	0.50	0.50

cycles in economic variables. In this section, we present a simple numerical example, highlighting these results.

Suppose that there exist two views on the economy:

model 1: $y_1 = 0 \qquad (r_1 = 0)$

and

model 2: $y_1 = -x \qquad (r_2 = -1)$

The probability that model 1 is correct is equal to $\frac{1}{2}(\pi = \frac{1}{2})$. The weights party ℓ and party r attribute to x (β_i) in the loss function are equal to $\frac{1}{2}$ and 1, respectively. The median voter's preference weight (β_m) lies within the 0.65–0.85 range. All players in the model give equal weight to utility received in period 1 and period 2 ($q = 1$).

Using (1), (2), (9), (11), (15), (18) and (19) we can now calculate (by approximation) the outcomes of the model. The results are presented in Table 1.

Table 1 clearly shows that the effects of adopting a partisan view of the economy on policy may be substantial. When parties have no incentives to adopt a partisan view, as in period 2, party ℓ opts for a x that is twice as big as the x chosen by party r. When partisan views are adopted x_ℓ becomes four times as big as x_1.

5. Conclusions

In this paper we have demonstrated that political parties may have incentives to adopt a partisan view on the working of the economic system. Our approach is based on a dynamic spatial voting model in which political parties are policy oriented. This model revolves around two interrelated issues x and y. The policy maker sets x directly. There exist two views on the relationship between x and y. Model uncertainty confronts policy makers and voters with the problem of the selection of a model to base their decisions on. In our paper, voters adopt the view on the system underlying current policy. We have shown

that in this setting, model selection contains a strategic element. By adopting a partisan view of the system, the incumbent party can increase its chances of reelection. Policy makers are inclined to adopt a view which fits in with their preferences.

Notes

1. Throughout this paper, superscript e refers to expectations formed by voters.
2. Since $\beta_\ell > \beta_r$ and political parties are issue oriented, it is natural to assume that $x^e_{\ell,2} > x^e_{r,2}$. Later this inequality will be derived formally.
3. Voters observe policy in period 1 and know the parameters of the models and the preferences of the parties. As will become clear later (see eq. (15)), from this information voters can derive the view on the system which underlies policy in period 1.
4. We are aware that this assumptions is restrictive. In practice, political parties expend much time and money to enhance their own credibility and to reduce the credibility of their opponents. Moreover, outcomes for x and y are probably also important. The assumptions made in this paper should be seen as a first step into the direction of a richer model.
5. In fact, we consider Nash equilibria, according to which party ℓ determines its strategy given the strategy of party r and party r determines its strategy given the strategy of party ℓ.
6. Since the effects of x on y are uncertain, parties maximise *expected* utility. To avoid confusion, we only use the term "expected" in connection with voters' expectations concerning policies in period 2, $x^e_{\ell,2}$ and $x^e_{r,2}$.
7. We assume that in period 1 policy is based on π_ℓ which implies $\pi_v = \pi_\ell$ and $x^e_{\ell,2} = -[\pi_\ell.r_1 + (1-\pi_\ell).r_2]/\beta_\ell$ (see section 1).
8. Of course the choice of π_ℓ is restricted ($0 \leq \pi_\ell \leq 1$).
9. If at $\pi_\ell = 0$, $R_{\pi_\ell} > C_{\pi_\ell}$, then party ℓ selects $\pi_\ell = 0$.
10. There is also a direct way to derive π_ℓ. Insert (15), through (13) in (12). Next substitute (9) into (12), taking $\pi_v = \pi_\ell$ and $x^e_{\ell,2} = -[\pi_\ell.r_1 + (1-\pi_\ell).r_2]/\beta_\ell$. Then differentiate with respect to π_ℓ. After some rearrangements, we find (18). The second-order condition for a maximum implies that $(\partial U_{\ell,1}(.)^2/\partial^2\pi_\ell) + (\partial P_\ell(.)^2/\partial^2\pi_\ell).q.[U_{\ell,2} - U_{\ell,2}(x_{r,2})] < 0$ which holds.

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