# Leadership U.S. Electoral Politics*

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### Abstract

Formal work on the electoral model often suggests that parties or candidates should locate themselves at *the electoral center (or origin).* Recent research has found no evidence of such convergence. In order to explain non-convergence, the stochastic electoral model is extended by including various kind of *valences,* some of which are based on individual and electoral *perceptions.* These electoral perceptions can be influenced by the contributions made by activist groups to the various parties. We present this formal activist model and then discuss the US presidential election in 2008 and the midterm US election in 2010 in order to evaluate the influence of activist groups, such as the so-called "Tea Party."

As an application of the model, we discuss the continuing realignment of US politics that has that has occurred since the end of the nineteenth century as a result of conflict between activist coalitions.

JEL classification: H10

Key words: stochastic electoral model, valence, electoral perceptions, local Nash equilibrium.

## 1  Activist Politics

This paper attempts to model elections by incorporating voter judgments about candidate and leader competence. In a sense the proposed model can be linked to Madison's understanding of the nature of the choice of Chief Magistrate (Madison, 1999 [1787]). and Condorcet's work on the so-called "Jury Theorem" (Condorcet, 1994 [1785]). This aspect of Condorcet's work has recently received renewed attention (McLennan, 1998) and can be seen as a contribution to the development of a Madisonian conception of elections in representative democracies as methods of aggregation of both preferences and judgments.

The literature on electoral competition has focused on preferences rather than judgments. Models of two-party competition have typically been based on

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the assumption that parties or candidates adopt positions in order to win, and has inferred that parties will converge to the electoral *median*, under deterministic voting in one dimension (Downs, 1957) or to the electoral mean in stochastic models.[1] This median based model has been applied recently by Acemoglu and Robinson (2000, 2006a) in a wide ranging account of political economy, including the transformation of the British polity to a more democratic model in the nineteenth century.

In this paper we develop a theory of political choice in which the political space is of higher dimension. This space is one which is derived essentially from the underlying factor structure of the political economy. That is to say, the axes are based on the preferences of those who control the factors of land, capital and labor. For example, Figure 1 presents an estimate of the distribution of preferences (or preferred positions) in the U.S. presidential election of 2004.[2] The first-left right dimension represents preferences (or attitudes) towards government expenditure and taxes and can be interpreted as a *capital* axis. The second north-south or social dimension reflects attitudes on social policy, particularly civil rights, and can be interpreted as a *labor* axis.

[Insert Figure 1 here]

Because the political space is two-dimensional, parties in the United States must be coalitions of opposed interests. Figure 1 also shows a *partisan cleavage line* obtained from a simple logit model of the election. This cleavage line joins the preferred points of voters who, according to the stochastic vote model, would choose the candidates with equal probability of one half.

In figure 2 we present the results of a factor analysis of the 2004 ANES, showing estimated mean partisan and activist positions for Democrat and Republican voters in 2004 (error bars are larger for the mean activist positions. This Figure, together with Figure 1 suggests that candidate positions are very much effected by activists who are estimated to be located at more extreme positions in the policy space. This inference is compatible with the model presented here.

[Insert Figure 2 here]

The Figure suggests that though the Republican party contains both socially conservative and socially liberal groups, they both tend to be *pro-capital*. Similarly the Democrat party tends to be *pro-labor*. The increasing dominance of "Tea Party" social conservatives in the Republic Party, and indeed the fact that the Republican position in the recent mid term election of 2010 appeared to be fairly "radical" in the lower right quadrant of the political space, caused some prominent Republicans to consider a change of party allegiance to the Democrats. Shifts in the activist coalitions for the two parties thus cause a transformation of the *partisan cleavage line.*

Miller and Schofield (2003,2008) argue that this is a fundamental aspect of

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[1] See the earlier work by Enelow and Hinich (1989), Erikson and Romero (1990) and more recent work by Duggan (2006), and Patty, Snyder and Ting (2009).

[2] This figure is based on factor analysis of the American National Election Study (ANES) for 2004 by Schofield et al. (2011a).

U.S. politics: as activists on the "trailing edge"[3] of the cleavage line change party allegiance, then the positions of the two parties shift. This can be interpreted as a clockwise rotation in the political space. They suggest that in the 150 years since the Civil War, the partisan cleavage line has rotated nearly 180 degrees, with the Republicans now occupying the position once occupied by the Democrats in the late nineteenth century. Miller and Schofield conjecture that in time, the Republican Party will adopt policies that are analogous to those proposed by William Jennings Bryan in 1896: populist and anti-business. In parallel, the Democratic Party will increasingly appeal to pro-business, social liberal cosmopolitans.

We argue that the fundamental changes in voter choice result not only from changes in the distribution of electoral preferences, but from the shifts in electoral *perceptions about the competence of the political candidates.*[4] These perceptions are influenced by the resources that the candidates command. In turn, these changes in perceptions are the consequence of the shifting pattern of activist support for the candidates.[5] The essence of the model presented here is that it attempts to endogenize the resources available to candidates by modeling the contracts they can make with their supporting activists. The activists must solve their own optimization problem by estimating the benefit they receive from their contributions and deciding what resources to make available to their chosen candidate.

In recent years, the importance of activist contributions has increased, and this has enhanced the influence of activist groups.[6] The empirical and formal models that we discuss here provide a reason why electoral politics has become so polarized in the United States.[7] Moreover, this polarization appears to have benefited the wealthy in society and may well account for the increase in inequality in income and wealth distribution that has occurred over the last decade. (Hacker and Pierson 2006, 2010, Pierson and Skocpol, 2007).

Essentially there is an arms race between candidates over these resources due to a feedback mechanism between politics and economics. As the outcome of the election becomes more important, activists become increasingly aware that the resources they provide have become crucial to election victories, and they become more demanding of their chosen candidates. Because of the offer of resources, candidates are forced to move to more radical positions, and polarization in candidate positions increases, even though there may be little change

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[3] These would on the one hand be cosmopolitan, socially liberal but economically conservative Republicans or on the other hand, populist, socially conservative but economically liberal Democrats.

[4] In the empirical models that we have developed, perceptions are linked to candidate character traits such as moral, caring, knowledgable, honest, moral, strong, optimistic, intelligent.

[5] In recent elections, candidate resources are expended through the media. Even a hundred years ago, presidential candidates had to expend resources in campaigning throughout the country.

[6] Indeed, Herrera, Levine and Martinelli (2008) observe that spending by parties in federal campaigns went from 58 million dollars in 1976 to over 1 billion in 2004 in nominal terms.

[7] See the works by Fiorina et al. (2005, 2009) and McCarty, Poole, and Rosenthal (2006) on polarization in the electorate and Layman et al. (2010) on polarization among activists. Schofield et al. (2011a,b) gives similar results for the 2000, 2004 and 2008 elections.

in the degree of polarization of the electorate.

Over the long run we see two forces at work: the continuing "circumferential" realignment and a "radial" polarization that occurs at times of political quandaries, caused by economic downturn or shocks to the global political economy.

In the next section we present an outline of the model that we use. In Section 3 we present the formal details of the model, and then in Sections 4 and 5 we apply it to the consideration of the 2008 and 2010 elections in the United States. Section 6 applies the model to episodes in United States history, commenting on the balance between land, labor and capital. Section 7 concludes.

## 2   An Outline of the Model.

In the standard spatial model, only candidate *positions* matter to voters. However, as Stokes (1963, 1992) has emphasized, the non-policy evaluations, or *valences*, of candidates by the electorate are equally important. In empirical models, a party's *valence* is usually assumed to be independent of the party's position, and adds to the statistical significance of the model. In general, valence reflects the overall degree to which the party is perceived to have shown itself able to govern effectively in the past, or is likely to be able to govern well in the future (Penn, 2009).

Over the last decade a new literature has developed that considers deterministic or probabilistic voting models including valence or bias towards one or other of the candidates.[8]

Recent work[9] has developed an empirical and formal stochastic electoral model based on multinomial conditional logit methods (MNL). In this model, each *agent,j*, was characterized by an *intrinsic or exogenous valence,$\lambda_j$*. This model can be considered to be Downsian, since it was based on a pure spatial model, where the estimates of valence were obtained from the intercepts of the model. It was possible to obtain the conditions for existence of "a local Nash equilibrium" (LNE) under vote maximization for a parallel formal model using the same stochastic assumptions as the MNL empirical model. A LNE is simply a vector of agent positions with the property that no agent may make a small unilateral move and yet increase utility (or vote share).

The *mean voter theorem* asserts that all candidates should converge to the electoral origin.[10] Empirical analyses of the 2000, 2004 and 2008 U.S. presidential elections (Schofield et al., 2011a,b) has corroborated the earlier work by Enelow and Hinich (1989) and shown, by simulation on the basis of the MNL models, that presidential candidates should converge to the electoral origin.[11] However, the empirical work also suggests that presidential candidates do not

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[8] Adams and Merrill (2005), Ansolabehere and Snyder (2000), Aragones and Palfrey (2002), Ashworth and Bueno de Mesquita (2009), Banks and Duggan (2005), Groseclose (2001) and McKelvey and Patty (2006).

[9] Schofield and Sened (2006), Schofield (2007).

[10] The electoral origin is the mean of the distribution of voter preferred points.

[11] Schofield et al., 2011c obtains a similar result for the elections in Britain in 2005 and 2010.

in fact adopt positions close to the electoral center. Figure 1, mentioned above, shows the estimated positions of the presidential candidates in the 2004 election in the U.S.

This figure is compatible with previous work empirical work by Poole and Rosenthal (1984) who also noted that there was no evidence of candidate convergence in U.S. presidential elections.

This paper offers a more general model of elections that, we suggest, accounts for the difference between the estimates of equilibrium positions and actual candidate positions. The model is based on the assumption that there is a second kind of valence is known as *activist valence*. When party, or candidate $j$ adopts a policy position $z_j$, in the policy space, $X$, then the activist valence of the party is denoted $\mu_j(z_j)$. Implicitly we adopt a model originally due to Aldrich (1983). In this model, activists provide crucial resources of time and money to their chosen party, and these resources are dependent on the party position.[12] The party then uses these resources to enhance its image before the electorate, thus affecting its overall valence. Although activist valence is affected by party position, it does not operate in the usual way by influencing voter choice through the distance between a voter's preferred policy position, say $x_i$, and the party position. In this first model, as party $j$'s activist support, $\mu_j(z_j)$, increases due to increased contributions to the party in contrast to the support $\mu_k(z_k)$ received by party $k$, then (in the model) all voters become more likely to support party $j$ over party $k$.

The problem for each party is that activists are likely to be more extreme than the typical voter. By choosing a policy position to maximize activist support, the party will lose centrist voters. The party must therefore determine the "optimal marginal condition" to maximize vote share. The Theorem, presented in Section 3, gives this as a (first order) *balance condition.* Moreover, because activist support is denominated in terms of time and money, it is reasonable to suppose that the activist function will exhibit decreasing returns. The Theorem points out that when these activist functions are sufficiently concave, then the vote maximizing model will exhibit a Nash equilibrium.

It is intrinsic to the model that voters evaluate candidates not only in terms of the voters' preferences over intended policies, but also in terms of electoral judgements about the quality of the candidates. These judgements are in turn influenced by the resources that the candidates can raise from their activist supporters.

Grossman and Helpman (1996), in their game theoretic model of activists, consider two distinct motives for interest groups:

> Contributors with an *electoral motive* intend to promote the electoral prospects of preferred candidates, [while] those with an *influence motive* aim to influence the politicians' policy pronouncements.

In our first activist model the term $\mu_j(z_j)$ influences every voter and thus

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[12] For convenience, it is assumed that $\mu_j(z_j)$ is only dependent on $z_j$, and not on $z_k, k \neq j$, but this is not a cucial assumption.

contributes to the electoral motive for candidate $j$. In addition, the candidate must choose a position to balance the electoral and activist support, and thus change the position adopted. This change provides the logic of activist influence.

We argue that the influence of activists on the two candidates can be characterized in terms of activist gradients.

Because each candidate is supported by multiple activists, we extend the activist model by considering a family of potential activists, $\{A_j\}$ for each candidate, $j$, where each $k \in A_j$ is endowed with a utility function, $U_k$, which depends on candidate $j$'s position $z_j$, and the preferred position of the activist. The resources allocated to $j$ by $k$ are denoted $R_{jk}(U_k(z_j))$. Let $\mu_{jk}(R_{jk}(U_k(z_j)))$ denote the effect that activist $k$ has on voters' utility. Note that the activist valence function for $j$ is the same for all voters. With multiple activists, the *total activist valence function* for agent $j$ is the linear combination $\mu_j(z_j) = \sum_{k \in A_j} \mu_{jk}(R_{jk}(U_k(z_j)))$. We also obtained information from the American National Election Surveys on activists- those who contributed resources to one or other of the two parties. Figure 1 , above, showed the estimated positions of activists for the two parties. The figure does suggest that activists influence the candidate positions. The balance condition suggests that the aggregrate activist gradients for each of the two candidates point into opposite quadrants of the policy space.

Bargains between the activists supporting candidate $j$ then gives a *contract set* of activist support for candidate $j$, and this contract set can be used formally to determine the balance locus, or set of optimal positions for each candidate. This balance locus can then be used to analyze the pre-election contracts between each candidate and the family of activist support groups.

Consider now the situation where these contracts have been agreed, and each candidate is committed to a set of feasible contracts as outlined in Grossman and Helpman (1994, 1996, 2001). Suppose further that the activists have provided their resources. Then at the time of the election the effect of this support is incorporated into the empirical estimates of the various exogenous, sociodemographic and trait valences. Consequently, when we estimate these valences we also estimate the aggregate activist influence. The estimated positions of the candidates can then be regarded as incorporating policy preferences of the activists.

Electoral models where candidates have policy positions[13] implicitly assume that candidates would be willing to accept defeat because of an adherence to particular policy positions. We argue that it is more plausible that the estimated positions of the candidates are the result of maximizing candidate utility functions that balance the electoral consequences of position-taking with the necessity of obtaining activist resources to contest the election. This calculation requires an estimate of the degree to which these resources will influence the perceptions that the electorate has of the various valences associated with the model.

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[13] As proposed by Wittman (1977), Calvert (1985), Duggan and Fey (2005), Duggan (2006) and Peress (2010).

In the final version of the model we allow the activist valence function to be individual specific. The total resources available to candidate $j$ are now denoted $\boldsymbol{\mu}_j(z_j)$, and these may be allocated to individuals, with resource $m_{ij}$ targeted on voter, or "voter class", $i$ by candidate $j$. Since $m_{ij}$ will depend on $z_j$, we write this allocation as $m_{ij}(z_j)$, so the the budget constraint is

$$
\begin{aligned}
\mathbf{R}_j(z_j) &= \sum_{k \in A_j} R_{jk}(U_k(z_j)) \\
&= \sum_{i \in N} m_{ij}(z_j).
\end{aligned}
$$

The optimization problem is now a more complex one, subject to this constraint. In actual fact, candidates will generally not allocate resources to individuals *per se*, but to voter classes via media outlets in different regions, or "zip codes." The general balance condition specifies how these resources should be allocated throughout the polity.

A recent literature on elections has focussed on the effects of campaign expenditure on US election results (Coate, 2004).[14] Herrera et al. (2008) suggest that electoral volatility forces candidates to spend more, while Ashworth and Bueno de Mesquita (2007) suppose that candidates buy valence so as to increase their election chances. Meirowitz (2008) notes that "candidates and parties spending this money thought that it would influence the election outcome. Downsian models of competition cannot explain how candidates choose spending campaign levels or what factors influence these decision." Meirowitz proxies the choice of expenditure in terms of candidate choice of effort, but his model does not explicitly deal with an endogenous budget constraint.

# 3 The Formal Stochastic Model

## 3.1 The First Activist Model

We develop an electoral model that is an extension of the multiparty stochastic model of McKelvey and Patty (2006), modified by inducing asymmetries in terms of valence. The justification for developing the model in this way is the empirical evidence that valence is a natural way to model the judgements made by voters of party leaders and candidates. There are a number of possible choices for the appropriate model for multiparty competition. The simplest one, which is used here, is that the utility function for the candidate of party $j$ is proportional to the vote share, $V_j$, of the party in the election. [15] With

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[14] An earlier paper by Groseclose and Snyder (1996) looked at vote buying, but in the legislature.

[15] For refining the model, and for empirical analysis, it would be more appropriate to use the share of the electoral college votes, or a combination of this and the party vote shares in the elections to Congress. We adopt this simplifying assumption in order to present the essential structure of the formal model.

this assumption, we can examine the conditions on the parameters of the stochastic model which are necessary for the existence of a pure strategy Nash equilibrium (PNE). Because the vote share functions are differentiable, we use calculus techniques to obtain conditions for positions to be locally optimal . Thus we examine what we call *local pure strategy Nash equilibria* (LNE). From the definitions of these equilibria it follows that a PNE must be a LNE, but not conversely.

The key idea underlying the formal model is that party leaders attempt to estimate the electoral effects of policy choices, and choose their own positions as best responses to other party declarations, in order to maximize their own vote share. The stochastic model essentially assumes that candidates cannot predict vote response precisely, but that they can estimate the effect of policy proposals on the expected vote share. In the model with valence, the stochastic element is associated with the weight given by each voter, $i$, to the average perceived quality or valence of the candidate.

**Definition 1.** *The Stochastic Vote Model* $\mathbb{M}(\boldsymbol{\lambda}, \boldsymbol{\alpha}, \boldsymbol{\mu}, \beta; \Psi)$ *with Activist Valence*.

The data of the spatial model is a distribution, $\{x_i \in X\}_{i \in N}$, of voter ideal points for the members of the electorate, $N$, of size $n$. We assume that $X$ is a compact convex subset of Euclidean space, $\mathbb{R}^w$, with $w$ finite. Without loss of generality, we adopt coordinate axes so that $\frac{1}{n}\Sigma x_i = 0$. By assumption $0 \in X$, and this point is termed the *electoral mean*, or alternatively, the *electoral origin*. Each of the parties in the set $P = \{1, \ldots, j, \ldots, p\}$ chooses a policy, $z_j \in X$, to declare prior to the specific election to be modeled.

Let $\mathbf{z} = (z_1, \ldots, z_p) \in X^p$ be a typical vector of candidate policy positions.

We define a stochastic electoral model, which utilizes socio-demographic variables and voter perceptions of character traits. For this model we assume that voter $i$ utility is given by the expression

$\mathbf{u}_i(x_i, \mathbf{z}) = (u_{i1}(x_i, z_1), \ldots, u_{ip}(x_i, z_p))$ where

$$
\begin{aligned}
u_{ij}(x_i, z_j) &= \lambda_j + \mu_j(z_j) + (\theta_j \cdot \eta_i) + (\alpha_j \cdot \tau_i) - \beta \|x_i - z_j\|^2 + \epsilon_j \quad (1) \\
&= u_{ij}^*(x_i, z_j) + \epsilon_j. \quad (2)
\end{aligned}
$$

Here $u_{ij}^*(x_i, z_j)$ is the observable component of utility. The constant term, $\lambda_j$, is the *intrinsic or exogenous valence* of party $j$, The function $\mu_j(z_j)$ is the component of valence generated by activist contributions to agent $j$. The term $\beta$ is a positive constant, called the *spatial parameter*, giving the importance of policy difference defined in terms of a metric induced from the Euclidean norm, $\| \cdot \|$, on $X$. The vector $\boldsymbol{\epsilon} = (\epsilon_1, \ldots, \epsilon_j, \ldots, \epsilon_p)$ is the stochastic error, whose mutivariate cumulative distribution is the Type 1 extreme value distribution, denoted by $\Psi$.

Sociodemographic aspects of voting are modeled by $\boldsymbol{\theta}$, a set of $k$-vectors $\{\theta_j : j \in P\}$ representing the effect of the $k$ different sociodemographic parameters (class, domicile, education, income, religious orientation, etc.) on voting for party $j$ while $\eta_i$ is a $k$-vector denoting the $i^{\text{th}}$ individual's relevant "sociodemographic" characteristics. The compositions $\{(\theta_j \cdot \eta_i)\}$ are scalar products,

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called the *sociodemographic valences* for $j$.

The terms $(\alpha_j \cdot \tau_i)$ are scalars giving voter $i$'s perception of the *traits* of the leader (or candidate) of party $j$. The coefficients, $\alpha_j$, correspond to different candidates. We let $\boldsymbol{\alpha} = (\alpha_p, ....\alpha_1)$.[16] The trait score can be obtained by factor analysis from a set of survey questions asking respondents about the traits of the candidate. including moral, caring, knowledgable, strong, dishonest, intelligent, out of touch. Schofield et al. (2011a,b) show that the electoral perceptions of candidate traits are statistically relevant for modeling US presidential elections.

It is assumed that the intrinsic valence vector

$$\boldsymbol{\lambda} = (\lambda_1, \lambda_2, .., \lambda_p) \text{ satisfies } \lambda_p \geq \lambda_{p-1} \geq \cdots \geq \lambda_2 \geq \lambda_1.$$

Voter behavior is modeled by a probability vector. The probability that a voter $i$ chooses party $j$ at the vector $\mathbf{z}$ is

$$
\begin{aligned}
\rho_{ij}(\mathbf{z}) &= \Pr[[u_{ij}(x_i, z_j) > u_{il}(x_i, z_l)], \text{ for all } l \neq j]. &\quad (3)\\
&= \Pr[\epsilon_l - \epsilon_j < u^*_{ij}(x_i, z_j) - u^*_{il}(x_i, z_l), \text{ for all } l \neq j]. &\quad (4)
\end{aligned}
$$

Here $\Pr$ stands for the probability operator generated by the distribution assumption on $\epsilon$. The *expected vote share* of agent $j$ is

$$V_j(\mathbf{z}) = \frac{1}{n} \sum_{i \in N} \rho_{ij}(\mathbf{z}). \qquad (5)$$

The differentiable function $V : X^p \rightarrow \mathbb{R}^p$ is called the *party profile function*.

The most common assumption in empirical analyses is that $\Psi$ is the *Type I extreme value distribution* (also called the Gumbel (maximum) distribution). The theorem in this paper is based on this assumption. This distribution assumption is the basis for much empirical work based on multinomial logit estimation.

**Definition 2: *The Type I Extreme Value Distribution,*$\Psi$.**

(i) The cumulative distribution, $\Psi$, has the closed form

$$\Psi(h) = \exp[-\exp[-h]],$$

with probability density function

$$\psi(h) = \exp[-h] \exp[-\exp[-h]]$$

and variance $\frac{1}{6}\pi^2$.

(ii) For each voter $i$, and party $j$, the probability that a voter $i$ chooses party $j$ at the vector $\mathbf{z}$ is

$$\rho_{ij}(\mathbf{z}) = \frac{\exp[u^*_{ij}(x_i, z_j)]}{\sum\limits_{k=1}^{p} \exp u^*_{ik}(x_i, z_k)}. \qquad (6)$$

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[16] For US elections we talk of the traits of candidate $j$, rather than party leader $j$.

See Train (2003:79)

In this stochastic electoral model it is assumed that each party $j$ chooses $z_j$ to maximize $V_j$, conditional on $\mathbf{z}_{-j} = (z_1, .., z_{j-1}, z_{j+1}, .., z_p)$.

**Definition 3. *Equilibrium Concepts.***

(i) A vector $\mathbf{z}^* = (z_1^*, ..., z_{j-1}^*, z_j^*, z_{j+1}^*, ..., z_p^*)$ is a *local Nash equilibrium* (LNE) iff, for each agent $j$, there exists a neighborhood $X_j$ of $z_j^*$ in $X$ such that

$$V_j(z_1^*, ..., z_{j-1}^*, z_j^*, z_{j+1}^*, ..., z_p^*) \geq V_j(z_1^*, ..., z_j, ..., z_p^*) \text{ for all } z_j \in X_j.$$

(ii) A vector $\mathbf{z}^* = (z_1^*, ..., z_{j-1}^*, z_j^*, z_{j+1}^*, ..., z_p^*)$ is a *pure strategy Nash equilibrium* (PNE) iff $X_j$ can be replaced by $X$ in (i)..

(iii) The strategy $z_j^*$ is termed a *local strict best response*, a *local weak best response*, or a *global best response*, respectively to $\mathbf{z}_{-j}^* = (z_1^*, ..., z_{j-1}^*, z_{j+1}^*, ..., z_p^*)$ depending on which of the above conditions is satisfied.

(iv) Strict local Nash equilibria (SLNE) and strict Nash equilibria (SPNE) are defined analogously by requiring strict inequalities in the definition.

From the definitions, it follows that if $\mathbf{z}^*$ is a PNE it must be an LNE.

Notice that in this model, each agent is uncertain about the precise electoral outcome, because of the stochastic component of voter choice. None the less, we presume that each agent uses opinion poll data, etc. to estimate expected vote share, and then responds to this information by searching for a "local equilibrium" policy position.in order to gain as many votes as possible.

It follows from (6) that for voter $i$ , with ideal point, $x_i$, the probability, $\rho_{ij}(\mathbf{z})$, that $i$ picks $j$ at $\mathbf{z}$ is given by

$$\rho_{ij}(\mathbf{z}) = [1 + \Sigma_{k \neq j}[\exp(f_{jk})]]^{-1} \tag{7}$$

$$\text{where } f_{jk} = u_{ik}^*(x_i, z_j) - u_{ij}^*(x_i, z_j).$$

We use (9) to show that the first order condition for $\mathbf{z}^*$ to be a LNE is that it be a *balance solution.*

**Definition 4: The balance solution for the model** $\mathbb{M}(\boldsymbol{\lambda}, \boldsymbol{\alpha}, \boldsymbol{\mu}, \beta; \Psi)$.

Let $[\rho_{ij}(\mathbf{z})] = [\rho_{ij}]$ be the $n$ by $p$ matrix of voter probabilities at the vector $\mathbf{z}$, and let

$$[\varpi_{ij}] = \left[ \frac{\rho_{ij} - \rho_{ij}^2}{\Sigma_{k=1}^n (\rho_{kj} - \rho_{kj}^2)} \right] \tag{8}$$

be the $n$ by $p$ matrix of weighting coefficients.

The *balance equation* for $z_j^*$ is given by expression

$$z_j^* = \frac{1}{2\beta} \frac{d\mu_j}{dz_j} + \sum_{i=1}^n \varpi_{ij} x_i. \tag{9}$$

The vector $\sum_i \varpi_{ij} x_i$ is a convex combination of the set of voter ideal points. This vector is called the *weighted electoral mean* for party $j$. Define

$$z_j^{el} = \sum_i \varpi_{ij} x_i. \tag{10}$$

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The balance equations for $j = 1, ..., p$ can then be written as

$$\left[ z_j^{el} - z_j^* \right] + \frac{1}{2\beta} \frac{d\mu_j}{dz_j} = 0. \tag{11}$$

The bracketed term on the left of this expression is termed the *marginal electoral pull of party* $j$ and is a gradient vector pointing from $z_j^*$ towards the *weighted electoral mean*, $z_j^{el}$, of the party. This weighted electoral mean is that point where the electoral pull is zero. Notice that the each entry in the vector $\mathbf{z}^{el} = (z_1^{el}, z_2^{el}, ... z_p^{el})$ depends on all other entries. The vector $\frac{d\mu_j}{dz_j}$ is called *the marginal activist pull for party* $j$.

If $\mathbf{z}^*$ satisfies the system of balance equations, for all $j$, then call $\mathbf{z}^*$ a *balance solution*.

For the following discussion note again that by suitable choice of coordinates, the equi-weighted electoral mean $\frac{1}{n}\Sigma x_i = 0$, and is termed the *electoral origin*.

The following theorem is proved in Schofield (2006a) .

**Activist Theorem 1.**

Consider the electoral model $\mathbb{M}(\boldsymbol{\lambda}, \boldsymbol{\alpha}, \boldsymbol{\mu}, \beta; \Psi)$ based on the Type I extreme value distribution,and including both intrinsic and activist valences.

(i) The first order condition for $\mathbf{z}^*$ to be an LNE is that it is a balance solution.

(ii) If all activist valence functions are highly concave, in the sense of having negative eigenvalues of sufficiently great magnitude, then a balance solution will be a LNE.

Notice that if $X$ is open, then this first order condition at $\mathbf{z}^*$ is necessary for $\mathbf{z}^*$ to be a PNE.

## 3.2 Extension to the case with multiple activist groups

(i) For each party leader, $j$, let $\{A_j\}$ be a family of potential activists, where each $k \in A_j$ is endowed with a utility function, $U_k$, which is a function of the position $z_j$. The resources allocated to $j$ by $k$ are denoted $R_{jk}(U_k(z_j))$. The total activist valence function for leader $j$ is the linear combination

$$\mu_j(z_j) = \sum_{k \in A_j} \mu_{jk}(R_{jk}(U_k(z_j))). \tag{12}$$

where $\{\mu_{jk}\}$ are functions of the contributions $\{R_{jk}(U_k(z_j)\}$, and each $\mu_{jk}$ is a concave function of $R_{jk}$.

(ii) Assume the gradients of the valence functions for $j$ are given by

$$\frac{d\mu_{jk}}{dz_j} = a_k^* \frac{dR_{jk}}{dz_j} = a_k^* a_k^{**} \frac{dU_k}{dz_j} \tag{13}$$

where the coefficients, $\{ a_k^*, a_k^{**} \} > 0$, and are differentiable functions of $z_j$.

(iii) Under these assumptions, the first order equation $\frac{d\mu_j}{dz_j} = 0$ becomes

$$\frac{d\mu_j}{dz_j} = \sum_{k \in A_j} \frac{d}{dz_j}[\mu_{jk}(R_{jk}(U_k(z_j)))] \tag{14}$$

$$= \sum_{k \in A_j} (a_k^{**} a_k^*)\frac{dU_k}{dz_j} = 0. \tag{15}$$

The *Contract Curve* generated by the family $\{A_j\}$ is the locus of points satisfying the gradient equation

$$\sum_{k \in A_j} b_k \frac{dU_k}{dz_j} = 0, \text{where } \sum_{k \in A_j} b_k = 1 \text{ and all } a_k > 0. \tag{16}$$

Here we let $b_k = (a_k^{**} a_k^*)$ and renormalize.

The *Balance Locus* for the leader $j$, defined by the family, $\{A_j\}$, is the solution to the first-order gradient equation

$$[z_j^{el} - z_j^*] + \frac{1}{2\beta}\left[\sum_{k \in A_j} a_k \frac{dU_k}{dz_j}\right] = 0. \tag{17}$$

The simplest case, discussed in Miller and Schofield (2003) is in two dimensions, where each leader has two activist groups.[17] In this case, the contract curve for each leader's supporters will, generically, be a one-dimensional arc. Miller and Schofield also supposed that the activist utility functions were ellipsoidal, mirroring differing saliences on the two axes. In this case the contract curves would be *catenaries*, and the balance locus would be a one dimensional arc. The balance solution for each leader naturally depends on the positions of opposed leaders, and on the coefficients, as indicated above, of the various activists. The determination of the balance solution can be obtained by computing the vote share Hessian along the balance locus. Because the activist valence functions can be expected to be concave in the activist resources, the Hessian of the overall activist valence, $\mu_j$, can be expected to have negative eigenvalues. For this reason, the Activist Theorem 1 gives a formal reason to expect existence of a PNE. In Figure 3, the point $z_1^*(z_2)$ satisfies the balance equation for a Republican candidate. This point lies on the balance locus of the Republican party, and is also a function of the Democrat candidate location, $z_2$. A similar balance locus can be constructed for the Democrat candidate. Note that Figure 1 is compatible with Figure 3.

[Insert Figure 3 here]

If we associate the utilities $\{U_k\}$ with leaders of the activist groups for the parties, then the combination

$$\sum_{k \in A_j} a_k \frac{dU_k}{dz_j}$$

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[17]See also Schofield and Cataife (2007) for example.

may be interpreted as the marginal utility of the candidate for party $j$, induced by the activist support. Notice that the model presented here is formally identical to one where the party leader has policy preferences. This activist model can be given a game-theoretic foundation, as in Grossman and Helpman (2001), and can in principle be extended to the case where there are multiple activist groups which have the option of choosing from among a set of possible party leaders, all with varying intrinsic valences and preferences (Galiani, Schofield and Torrens, 2012).

### 3.3 Extension of the Activist Model: Targeting Voters

We now reinterpret

$$\boldsymbol{\mu}_j(z_j) = \sum_{k \in A_j} R_{jk}(U_k(z_j)). \tag{18}$$

as the total resources obtained by agent $j$ from the various activist groups. These resources are denominated in terms of time (times skilled labor rate) or money, so we can take the units as monetry.

These resources are used to target the individual voters and the voter utility function is now

$$
\begin{aligned}
u_{ij}(x_i, z_j) &= \lambda_j + \mu_i(m_{ij}) + (\theta_j \cdot \eta_i) + (\alpha_j \cdot \tau_i) - \beta\|x_i - z_j\|^2 + \varepsilon_j \\
&= u_{ij}^*(x_i, z_j) + \varepsilon_j.
\end{aligned}
$$

Here $\mu_i(m_{ij})$ is the valence effect of the expenditure of resources, $(m_{ij})$ on the targeting of voter $i$, by agent $j$. We assume that the greater the resources $m_{ij}$ spent on persuading voter $i$, the greater the implicit valence associated with candidate $j$, so $\frac{d\mu_i(m_{ij})}{dm_j} > 0$. We may also assume decreasing returns so that $\frac{d^2\mu_i(m_{ij})}{dm_j^2} < 0$. Obviously we can partition the voters into different categories, in terms of their sociodemographic valences. Note that different agents may target the same voter or group of voters.

We assume that for each $j$ the budget constraint is satisfied:

$$\mathbf{R}_j(z_j) = \sum_{k \in A_j} R_{jk}(U_k(z_j)) = \sum_{i \in N} m_{ij} \tag{19}$$

We now assume that $j$ solves the optimization problem that we now construct. Since $\boldsymbol{\mu}_j(z_j)$ determines the budget constraint for $j$, we can write $m_{ij} \equiv m_{ij}(z_j)$ , so

$$\mu_i(m_{ij}) \equiv \mu_i(m_{ij}(z_j) \equiv \mu_{ij}(z_j).$$

. We shall also assume that the solution to the optimization problem is smooth, in the sense that $\mu_{ij}()$ is a differentiable function of $z_j$.

Then just as above, the first order condition gives a more general balance condition as follows:

$$0 = \frac{dV_j(\mathbf{z})}{dz_j} = \frac{1}{n} \sum_{i \in N} \frac{d\rho_{ij}}{dz_j}$$

$$= \frac{1}{n} \sum_{i \in N} [\rho_{ij} - \rho_{ij}^2]\{2\beta(x_i - z_j) + \frac{d\mu_{ij}}{dz_j}(z_j)\}.$$

$$\text{So } z_j \sum_{i \in N} [\rho_{ij} - \rho_{ij}^2] = \sum_{i \in N} [\rho_{ij} - \rho_{ij}^2]\{x_i + \frac{1}{2\beta} \frac{d\mu_{ij}}{dz_j}(z_j)\}.$$

$$\text{Hence } z_j^* = \frac{\sum_i \left[ [\rho_{ij} - \rho_{ij}^2] \left[ x_i + \frac{1}{2\beta} \frac{d\mu_{ij}}{dz_j}(z_j) \right] \right]}{\sum_{k \in N} [\rho_{kj} - \rho_{kj}^2]}$$

$$\text{or } z_j^* = \sum_{i=1}^{n} \varpi_{ij}(x_i + \gamma_i) \text{ where } \gamma_i = \frac{1}{2\beta} \frac{d\mu_{ij}}{dz_j}(z_j)$$

$$\text{and } \varpi_{ij} = \frac{[\rho_{ij} - \rho_{ij}^2]}{\sum_{k \in N} [\rho_{kj} - \rho_{kj}^2]}$$

$$\text{This can be written } \quad [z_j^* - z_j^{el}] = \sum_{i=1}^{n} \varpi_{ij}\gamma_i \text{ where } z_j^{el} = \sum_{i=1}^{n} \varpi_{ij}x_i.$$

$$\text{When} \frac{d\mu_{ij}}{dz_j}(z_j) = \frac{d\mu_j}{dz_j}(z_j)$$

this reduces to the previous result (11).

The difference now is that instead of there being a single *centrifugal marginal activist pull* $\frac{1}{2\beta} \frac{d\mu_j}{dz_j}(z_j)$ *there is an aggregrate activist pull*

$$\sum_{i=1}^{n} \varpi_{ij}\gamma_i$$

$$= \frac{1}{2\beta} \sum_{i=1}^{n} \frac{[\rho_{ij} - \rho_{ij}^2]}{\sum_{k \in N} [\rho_{kj} - \rho_{kj}^2]} \frac{d\mu_{ij}}{dz_j}(z_j)$$

determined by the budget constraint given in Eq (31).

Notice that the first order condition depends on the marginal terms, $\frac{d\mu_{ij}}{dz_j}(z_j)$, associated with policy positions, and these will depend on the marginal valence effects $\frac{d\mu_i(m_{ij})}{dm_j}$. Although these valence effects can be assumed to exhibit decreasing returns, these will vary across different classes of voters. The plausibility of existence of Nash equilibria turns on whether the induced second

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order terms $\frac{d^2\mu_{ij}}{dz_j^2}(z_j)$ have negative eigenvalues. The assumption of negative eigenvalues would give a version of the activist theorem.

Note also that if $\rho_{ij}$ is close to 0 or 1, then $\varpi_{ij}$ will be close to 0, so the optimal calculation will be complex, though in principle solvable. It is plausible the candidate should expend resources on pivotal voters for whom $\rho_{ij}$ is close to $1/2$.[18]

To sketch an outline of a general model to endogenize activist support, we first let

$$\boldsymbol{\rho}: [X \times \mathbb{B}^n]^p \to [0,1]^{n \times p}$$

specify the voter probabilities in terms of candidate positions in $X^p$ and the distribution, in $\mathbb{B}^{n \times p}$, of resources $\{m_{ij}\}$ to all voters.[19]

We then let

$$\mathbf{V} = V_1 \times .. \times V_p : [X \times \mathbb{B}^n]^p \to [0,1]^p$$

be the *party profile function*, mapping party positions and voter distributions to vote shares, as given by the above models. Indeed, for a more general model we could consider multiparty systems where agents form beliefs about coalitions behavior, as suggested in Schofield and Sened (2006). In this case the mapping would be

$$\mathbf{V} = V_1 \times .. \times V_p : [X \times \mathbb{B}^n]^p \to \mathbb{R}^p.$$

We assume that each of the $\mathbf{k}$ activists offers a distribution of resources to the $p$ party leaders, which we take to be a vector in $\mathbb{B}^{\mathbf{k}}$. We seek is an equilibrium to a game form which may be written

$$\mathbf{U} \otimes \mathbf{V} \colon \mathbf{W} = B^{\mathbf{k}} \times [X \times \mathbb{B}^n]^p \to \mathbb{R}^{\mathbf{k}} \times \mathbb{R}^p.$$

This is an extremely complex dynamical game, and we do not attempt to explore the full ramifications of this model here.[20] One way to deal with it is to consider a dynamical version by considering a preference field for each party, or activist. This will be a cone in the tangent space of the agent's strategy space which specifies those changes in the agent's behavior which increase the agents utility. We denote the joint preference field by

$$H_{\mathbf{U} \otimes \mathbf{V}} \colon \mathbf{W} \to \mathbb{T}\mathbf{W}$$

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[18] Stokes (2005) make a somwhat similar inference, discussing clientist models of politics, where $m_{ij}$ is simply a monetary bribe to $i$. Obviously the marginal benefit to a poor voter is greater than to a wealthy voter, under the usual assumption of decreasing marginal utility for money.

[19] It is reasonable to assume that the resource distributions lie in a compact ball, namely $\mathbb{B}^{n \times p}$.

[20] See Coram (2010) for a dynamical version of a similar model. Acemoglu and Robinson 2008) also develop a model based on Markov Perfect Equilibrium where the elite, activists, have different preferences for the public good, in $X$ and contribute to the *de facto* power of the political leader. However, they do not assume competing political leaders.The "matching" model proposed by Jackson and Watts (2010) embeds the Nash equilibrium within a coalition game, and would allow the principals to switch from one agent coalition to another.

where $\mathbb{T}\mathbf{W}$ stands for the tangent bundle above $\mathbf{W}$. A result in Schofield (2011) shows that if the tangent field $H_{\mathbf{U}\otimes\mathbf{V}}$ satisies a "half open property" then there will exist a critical Nash equilibrium satisfying the first order condition for equilibrium.

Earlier results of Schofield (1978) and McKelvey (1979) had suggested chaos could be be generic in electoral models.[21] The application of this model (in section 6) to the historical development of the U.S. political economy suggests that the equilibria of the model are subject to both circumferential and radial transformations over time.

# 4    Activist Support for Parties in the United States

To apply the above model, suppose there are two dimensions of policy, one economic, and one social. These can be found by factor analysis of survey data.

As in Figure 2 indicates, we represent the conflicting interests or bargains between the two activist groups of supporters for the Republican Party, located at $R$ and $C$, by a "contract curve." This represents the set of policies that these two groups would prefer their candidate to adopt. It can be shown that this contract curve is a *catenary* whose curvature is determined by the eccentricity of the utility functions of the activist groups (Miller and Schofield, 2003). We call this the *Republican contract curve*. The Democrat activist groups may be described by a similar contract curve (This is the simplest case with just two activist groups for each candidate. As the previous section shows, this idea can be generalized to many activist groups.)

The theorem presented above gives the first order condition for the candidate positions $(z^*_{dem}, z^*_{rep})$ to be a Nash equilibrium in the vote share maximizing game. This condition is that the party positions satisfy a *balance equation*. This means that, for each party, $j = dem$ or $rep$, there is a weighted electoral mean for party $j$, given by the expression

$$z_j^{el} = \sum_i \varpi_{ij} x_i. \tag{20}$$

This is determined by the set of voter preferred points $\{x_i\}$. Notice that the coefficients $\{\varpi_{ij}\}$ for candidate $j$ will depend on the position of the other candidate, $k$. As presented in the formal model, the *balance equation* for each $j$ is given by:

$$\left[z_j^{el} - z_j^*\right] + \frac{1}{2\beta}\left[\frac{d\mu_j}{dz_j}|_z\right] = 0. \tag{21}$$

## 4.1    The 2008 election

The previous sections have suggested that a candidate's valence at election time is due to the ability of activist groups to raise resources for the candidate. At the same time, the candidate positions are the result of a balancing act between

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[21] See also Riker (1980, 1982, 1986).

choosing an electorally optimal position and being able to persuade activist groups to provide these resources.We briefly provide some information about this balancing act: Figure 4 shows the estimated positions of Republican and Democrat Presidential primary candidate positions prior to the 2008 election. The figure clearly suggests that Obama adopted a fairly extreme policy position, very liberal on both economic and social axes. Figures 5 and 6 show the relationship between electoral popularity of the candidates and their campaign expenditures as of January 2008.

[Insert Figures 4,5 and 6 here]

Figure 5 suggests that Obama and Hilary Clinton were both very successful in raising campaign resources, and that these were highly correlated with the electoral support. Other candidates fell far behind and dropped out of the race. Figure 6 suggests that McCain was also extremely popular, even though his campaign, in January 2008, had not been very successful in raising contributions. This inference is compatible with McCain's estimated fairly moderate position in Figure 4. Obviously, the relationship between campaign resources and popular vote in primaries and in the general election is extremely complex. Further research will attempt to utilize the model presented here to clarify this relationship.

Obama's victory on November 4, 2008 suggests that it was the result of an overall shift in the relative valences of the Democrat and Republican candidates from the election of 2004. Indeed, Schofield et al (2011b) analyse a spatial model of the 2008 election and obtain a figure of 0.84 for the estimate of Obama's valence advantage over McCain.

In fact there were differential shifts in different regions of the country. In a region of the country from West Virginia through Tennessee, Arkansas and Oklahoma, there was an increase of 20% in the Republican vote over the share for 2004, suggesting a regional change of about 0.6 in McCain's valence advantage.

Obama's victory in 2008 suggests that policy outcomes during his administration ought to lie in the upper left hand quadrant of the policy space. Figure 7 provides an estimate (taken from Schofield et al. 2011a) of the location of McCain and Obama at the November 2008 election. The Figure also shows the location of Democrat and Republican activists. Again, there is some evidence that extreme activists influence the policy choices of the candidates.

[Insert Figure 7 here]

## 5   Post 2008 Election

The precise policy outcome from Obama's administration have thus far depended largely on the degree to which Republicans in the Senate have blocked Democratic policies through the use of the filibuster. Early in his administration some of Obama's policy initiatives successfully passed through Congress but only after navigating Republican opposition in the Senate. For example, on January 15, 2009, the Senate voted 52 against and 42 in support of Obama's economic recovery program. On February 6, 2009 an agreement was reached in

the Senate to reduce the size of the stimulus bill to $780 billion, in return for the support of three Republican senators. On February 9 the Senate did indeed vote by the required majority of 61 to halt discussion of the stimulus bill, thus blocking a filibuster. A compromise bill of $787 billion, including some tax cuts, was agreed upon by both the House and Senate within a few days; the bill passed the House with 245 Democrats voting in favor and.183 Republicans voting against while the Senate passed it with just 60 votes. The bill was immediately signed by President Obama.

As Obama commented afterwards:

> Now I have to say that given that [the Republicans] were running the show for a pretty long time prior to me getting there, and that their theory was tested pretty thoroughly and its landed us in the situation where we've got over a trillion dollars' worth of debt and the biggest economic crisis since the Great Depression, I think I have a better argument in terms of economic thinking.

On February 26, 2009 Obama proposed a 10 year budget that revised the priorities of the past, with an estimated budget deficit for 2009 at $1.75 trillion (over 12% of GDP). It included promises to address global warming and to reverse the trend of growing inequality. The $3.6 trillion Federal budget proposal passed the House on April 2, 2009 by 233 to 196, with even "blue dog" conservative Democrats supporting it, but, again, no Republicans.

Obama's social policies even received a modicum of success; on January 22, 2009 a bill against pay discrimination passed the Senate 61 to 36. The House also gave final approval on February 4, by a vote of 290 to 135, to a bill extending health insurance to millions of low-income children. Forty Republicans voted for the bill, and 2 Democrats voted against it. When the bill was signed by President Obama, it was seen as the first of many steps to guarantee health coverage for all Americans but it was not clear that the battle over broader healthcare legislation would take most of 2009.

Obama gained another important victory when the Senate confirmed Sonia Sotomayor as Supreme Court Justice on August 6, 2009, by a vote of 68 to 31. She is the first Hispanic and the third woman to serve on the Court. Similarly, Obama nominated another woman, Elena Kagan, to the high court and she was confirmed almost exactly one year after Sotomayor on August 7, 2010 by a vote of 63 to 37. Though adding two left-leaning female justices to the court has increased the number of women on the Supreme Court to an all time high of 3, it has not fundamentally changed the ideological make-up of the current court which still regularly splits 5 to 4 in favor of more right-leaning rulings.

Events in 2009 and 2010 are consistent with the model presented in Schofield and Miller (2007). Obama is attempting to attract and retain pro-business social liberals with his response to the economic crisis while his massive budget proposal addresses the economic down-turn but has angered most Republicans. It is possible that the Republican Party will gain votes from the blue-collar voters who are suffering the most from the economic collapse. However, if

there is any economic recovery by the 2012 election, it is possible that many of the pro-business groups in the country will respond to Obama's attempt to get the economy moving by supporting him. That could leave the Republican Party with nothing but the old-style populism of William Jennings Bryan: anti-Wall Street, anti-banking, anti-Detroit, anti-immigration, and pro-evangelical religion. This will result in a party realignment to a situation where the socially liberal and economically conservative "cosmopolitan" Democrats are opposed to populist Republicans.[22]

In October, 2009, one group identifying as populist Republicans, the "Tea Party" activists opposed Obama's policies on health care so much that they began lining up against the centrist Governor Charlie Crist in the GOP Senate primary. Ultimately, Crist was forced to become an Independent and a Tea Party darling, Marco Rubio, was nominated as the GOP candidate for the Florida Senate seat (and ultimately won the seat, beating Crist handily). Similarly, on November 1, 2009 the centrist Republican candidate, Dede Scozzafava, decided to drop out of the special election in New York's 23rd congressional district and endorse the Democrat candidate, Bill Owens. Owens won the election in a district that had been Republican since 1872.

As the Healthcare debate heated up over summer and fall of 2009 it became clear that Republicans were intending to continue utilize their blocking coalition as long as possible to stimy Obama and the Democrats. Interestingly, some Democrats contributed to this opposition as well; in the health bill vote in the House in early November 2009, 219 Democrats with 1 Republican voted for the bill, while 176 Republicans and 39 "Blue Dog" Democrats voted against.[23] By December 19, Senator Bernie Sanders of Vermont, an independent who caucuses with the Democrats, as well as Democrat Senators Ben Nelson and Sherrod Brown, had agreed to a compromise bill. This brought the size of the coalition to the critical size of 60 votes, sufficient to force a decision in the Senate.[24] Finally on Christmas Eve, 2009, the health bill passed in the Senate, again by 60 votes with 39 Republicans opposed. However, the victory by Republican Scott Brown in the special Senate election in Massachusetts on January 19 deprived the Democrats of the 60 seat majority required to push through the legislation. On February 25, 2010, an attempt to reach a bipartisan compromise failed, and there was talk of using a manoeuvre known as "reconciliation" to force though a health bill using simple majority rule.[25] Finally, on March 25, after strenuous efforts by President Obama and House speaker, Nancy Pelosi, the

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[22]That is, unlike the situation in the previous figures, the Republican Party will move to the lower left quadrant of the policy space, while business interests in the upper right quadrant will switch to the Democrats. It is indicative of this trend that on April 28 Arlen Specter, the senator from Pennsylvania, shifted his allegiance from the Republican Party to the Democrats.

[23]On Saturday, November 21, the Senate voted 60 to 40, along partisan lines, to move to the final discussion on the health care bill.

[24]Cloture is a motion aimed at bringing debate to an end. It originally required a two-thirds majority, but since 1975 has required a super-majority of 60.

[25]Reconciliation is a measure whereby a bill can pass the Senate with a simple majority; the legislation must be shown to be budget neutral over a ten-year span in accordance with the Byrd rule.

House voted 220-207 to send a health care bill to the President. Republicans voted unanimously against the legislation, joined by 33 dissident Democrats. The Senate passed the bill by simple majority of 56 to 43, as required under reconciliation and the President signed a draft of the bill, the "Patient Protection and Affordable Care Act," on March 23, 2010 and an updated version of the bill on March 30, 2010.

While it seemed that "gridlock" ensued over the health care legislation, several other major pieces of legislation passed with far less opposition. On February 22, 2010 and again on March 17, 2010 the Senate voted 62-30 and 68-29 respectively to implement two multi-billion "jobs creation" programs. Even though the vote to end debate on the Financial Regulation bill failed to obtain the required supramajority on May 19, 2010, it eventually passed the Senate. On July 15, 2010 the Senate voted 60-39 for the Dodd-Frank Wall Street Reform and Consumer Protection Act, and this was signed into law by President Obama on July 21..[26] President Obama also signed into law a bill to restore unemployment benefits for millions of Americans who have been out of work for six months or more.

Further complicating issues of partisan discontent in Congress has been the introduction of ever increasing quantities of money in the American political system. For example, in 2009, health care, pharmaceutical and insurance lobbyists[27] spent approximately $650 million on lobbying itself, and about $210 million on media advertising, while the oil and gas industry spent about $560 million.[28] It would seem inevitable that the importance of lobbying can only increase in the future.[29] The Supreme Court decision, *Citizens United v. Federal Election Commission*, on January 21, 2010, removed limits on campaign contributions and will further increase the importance of activist contributions. An earlier Court decision, *Federal Election Commission v. Wisconsin Right to Life Inc.* had allowed corporations to buy advertisements supporting candidates as long as they did not appeal explicitly for the election or defeat of a particular candidate. *Citizens United* removed this limitation.

In his State of the Union address in late January, 2010 President Obama said the court had "reversed a century of law that I believe will open the floodgates for special interests — including foreign corporations — to spend without limit in our elections."[30] Dworkin (2010) later called the Supreme Court decision "an

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[26]This complex bill was 2300 pages long. Russ Feingold, a Democrat, voted against the bill, because it was not strong enough. Three moderate New England Republicans, Snowe and Collins of Maine, and Scott Brown of Massachusetts, voted for the bill. The death of Senator Robert Byrd of West Virginia made it more difficult to summon the required 60 votes for cloture.

[27]The pharmaceutical industry was a strong supporter of reform of health care, because of an agreement with Obama to protect the industry's profits.

[28]Tomasky (2010) gives a figure of $3.47 billion for spending by lobbyists in the non election year of 2009, citing data from the Center for Responsive Politics.

[29]Indeed, Herrera, Levine and Martinelli (2008) observe that spending by parties in federal campaigns went from 58 million dollars in 1976 to over 1 billion in 2004 in nominal terms.

[30]Notably, George W. Bush appointed Supreme Court Justice Samuel Alito broke from traditional judicial decorum at State of the Unon speeches to shake his head in disagreement with the President reportedly muttering the words "that's not true."

unprincipled political act with terrible consequences for the nation."

In July, 2010, the Federal Election Commission approved the creation of two "independent" campaign committees, one each from the left and right, expressly designed to take advantage of the lack of spending limits. One committee is being set up by the Club for Growth, the conservative advocate for low taxes and less government. The other, called Commonsense Ten, with close ties to the Democrats, will raise money from individuals, corporations and unions. Both groups will be able to spend unlimited amounts, thanks to the *Citizens United* decision. A Democrat effort to impose new campaign finance regulations before the November congressional election was defeated on July 27 when all 41 Senate Republicans blocked a vote on a bill that would force special interest groups to disclose their donors when purchasing political advertisements. A second attempt at cloture on the bill failed by 59 to 39 in the Senate on September 23.[31]

As the 111th Congress drew to a close in November, 2010 there remained four major pieces of legislation on the agenda: A Deficit Reduction Act, an Expanded Trade and Export Act, a Comprehensive Immigration Act, and an Energy Independence and Climate Change Act. Despite passage by the House on June 26, 2009, the Waxman-Markey climate change bill, formally called the American Clean Energy and Security Act (ACES), never reached action in the Senate. On July 22, 2010, the effort to push forward with the Climate Change Act collapsed due to Republican opposition to a carbon tax. If these bills continue to prove impossible to enact because of partisan strife and opposition, the electorate is likely to oppose any incumbent due to their lack of efficacy at passing key legislation.

Given these uncertainties surrounding policy choices in the legislature, it is hardly surprising that voters in the United States doubt that government can be effective. Part of the problem would appear to be the degree of political polarization that results from the power of interest groups located in the opposed quadrants of the policy space.

## 5.1   Implications of the 2010 Election

In the November, 2010 mid-term election large amounts of money were funnelled through non-profit advocacy groups that can accept unlimited donations and are not required to disclose their donors. As of November 1, 2010, it was estimated that these groups had spent $280 million, 60% from undisclosed donors. Three activist groups, the US Chamber of Commerce, American Crossroads and the American Action Committee had spent $32.8 million, $21.6 million and $17 million respectively.

Former Bush advisers, Karl Rove and Ed Gillespie, first formed American Crossroads as a 527 independent-expenditure-only committee, but was required to disclose donors. They then formed Crossroads Grassroots Policy Strategies (GPS) as a 501(c)(4) social welfare nonprofit, which means it does not need

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[31]As usual it required 60 votes.

to disclose donors, but is not supposed to be used for political purposes. GPS spent $17 million. The Chamber of Commerce is a 501(c)(6) nonprofit, but corporations that donate to the Chamber must disclose these contributions in their tax filings. These corporations include Dow Chemical, Goldman Sachs, Prudential Financial and the most highly publicized was a singular donation in excess of $1 million from Rupert Murdoch's News Corporation.

In addition to the external activist groups, South Carolina Senator, Jim DeMint, used the Senate Conservatives Fund as a PAC to funnel about a $1million to many of the most right-wing Tea Party candidates. Indeed, a key element of the successful Republican campaign was that these activist bodies were able to target House and Senate races where incumbent Democrats were weak.

In the 2010 election cycle total campaign spending was about $4 billion, with Republican spending somewhat higher than total Democrat spending.The extremely high level of expenditure (especially for a midterm election) is particularly of interest because there is evidence that the policy positions of activists on the social axis has become more polarized over the last forty years ( Layman et al. 2010). This polarization appears to have benefited the wealthy in society and may well account for the increase the inequality in income and wealth distribution that has occurred (Hacker and Pierson (2006, 2010, Pierson and Skocpol, 2007).

Ultimately, the electorate seems to have blamed incumbents, particularly Democrats, for economic woes. In the midterm election in November, 2010, the Democrats lost 63 seats in the House, leading to a Republican majority of 242 to 192. In the Senate the Democrats lost 6 seats but retained a majority of 51 to 46 (with 3 Independents).[32] Many of the newly elected members of Congress received the backing of the Tea Party and vocally subscribed to extreme policy stances like abolishing the Federal Reserve, unemployment benefits, and even income taxes. Further, preliminary demographic studies of the Tea Party indicate that they are predominantly older, middle class suburban and rural white Americans[33]. This demographic make-up leads one to postulate that the Tea Party is a representation of a populist movement supported primarily by elites in the South and West. Although tea party supporters are opposed to deficit spending, they generally are supportive of social security and medicare, and want to reduce the deficit by cutting other programs. Perhaps most striking about the Tea Party is the immediate impact they had on Congress itself; the Republican House leadership even created a special leadership post for a Representative from the Tea Party wing.

Because of the plurality nature of the U.S. electoral system, parties have to build a winning coalition of mobilized disaffected activists and current party

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[32] This was the backlash predicted by Bunch (2010). However, the Democrat losses may be due to the spending pattern. The *New York Times* analysis suggested that in 21 House districts where groups supporting Republican candidates spent about $2 million, they won 12.

[33] Skocpol and Williamson (2010) have been collecting survey and interview data on the Tea Party since its emergence and all indications are that Tea Party members are a very specific demographic sub-group with traditional populist concerns. See also Rasmussen and Schoen (2010).

activists (Miller and Schofield, 2003). Many of the tea party activists see themselves as conservative independents that are opposed to big business despite the fact that large corporations and wealthy individuals heavily funded many of the tea party candidates campaigns. Even before the 112th Congress entered session the Republican Party stood up for the wealthy benefactors by insisting on blocking all legislation during the lame duck session until the wealthiest two percent of Americans received the same extension on their tax cuts that the other 98 percent were set to receive. This Republican measure included blocking discussion on repealing the "Don't Ask, Don't Tell" legislation, immigration reform legislation, a nuclear arms treaty and even legislation allocating funds to provide healthcare to September 11, 2001 first responders.

In an effort to close his career with parting advice about compromise retiring Connecticut Senator Chris Dodd gave his valedictory speech on the Senate floor on November 30, 2010 with remarks including the following:

> From the moment of our founding, America has been engaged in an eternal and often pitched partisan debate. That's no weakness. In fact, it is at the core of our strength as a democracy, and success as a nation. Political bipartisanship is a goal, not a process. You don't begin the debate with bipartisanship – you arrive there. And you can do so only when determined partisans create consensus – and thus bipartisanship. In the end, the difference between a partisan brawl and a passionate, but ultimately productive, debate rests on the personal relationships between Senators.

Another elder statesman in the Senate, Indiana's Richard Lugar, clearly felt the same way as Senator Dodd after the 2010 election as he defied the Republican Party over their various demands. Senator Lugar has said that the environment in Washington was the most polarized he had seen since joining the Senate in 1977. John C. Danforth, the former Republican senator from Missouri, remarked that

> If Dick Lugar, having served five terms in the U.S. Senate and being the most respected person in the Senate and the leading authority on foreign policy, is seriously challenged by anybody in the Republican Party, we have gone so far overboard that we are beyond redemption.

President Obama eventually struck a deal to allow the tax cuts to be extended for all Americans (in exchange for an extension of unemployment benefits) despite the fact that even the most positive economic forecasts do not predict these tax cuts to the wealthy bringing unemployment down by more than 0.1 percent over the two year lifespan of the tax cut extension.This compromise angered many in the liberal wings of Democratic Party as they saw compromise as a betrayal of President Obama's progressive values. In the wake of persistent attack by several prominent liberal Democrats, Obama invited former President Bill Clinton to give a White House press conference in support

of the compromise. Involving the former President in this way can be seen as either an act of desperation or an attempt by the administration to harken back to the 1990's (or earlier) when compromise was an acceptable political tactic.[34]

On Monday December 13, 2010 the Republican bargaining ploy worked. The Senate voted to halt debate on the tax cut bill. Other provisions of the $858 billion bill would extend unemployment insurance benefits and grant tax breaks for schoolteachers, mass transit commuting expenses and landowners who invest in conservation techniques. The compromise bill overwhelmingly passed the Senate on December 15 by a vote of 81 to 19. Despite accusations by House Speaker, Nancy Pelosi that Republicans were forcing Democrats "to pay a king's ransom in order to help the middle class" at midnight on December 16 the measure passed with 139 Democrats and 138 Republicans in favor and 112 Democrats and 36 Republicans opposed. President Obama signed the bill into law the next day.

After this initial compromise was struck, the logjam seemed to have broken as Congress began debate on repealing "Don't Ask, Don't Tell," on the passage of the nuclear arms treaty, and on temporary measures to continue funding the federal government into 2011. This step toward compromise and productivity irked Senators Jon Kyl (Republican from Arizona) and Jim DeMint (Republican from South Carolina) who criticized Majority Leader Harry Reid (Democrat from Nevada) for "disrespecting" the institution and the Christmas holiday by putting so much work on the Congressional docket that Senators might need to return to work during the week between Christmas and New Year. These statements by Senators Kyl and DeMint provide a stark reminder of the roadblocks to compromise in activist driven politics. House and Senate Republicans derailed a $1.2 trillion spending measure put forward by Senate Democrats, and promised to use their majority in the new House to shrink government. On December 21 Congress did approve a temporary spending bill up until March 2011.

On December 18, the "Dream Act" to allow illegal immigrant students to become citizens failed on a Senate vote of 55-41, but the Senate did vote 65 to 31 to repeal the "Don't Ask, Don't Tell" legislation, making it possible for gays to serve openly in the military. The House had previously approved this repeal by 250 to 175.

On December 20, the Senate voted 59 to 37 to reject an amendment to the new arms control treaty, New Start, with Russia. The amendment would have killed the treaty because any change to the text would have required the United States and Russia to renegotiate the treaty. Two days later the Senate voted 71 to 26 for the treaty. This treaty was seen as the most tangible foreign policy achievement of President Obama. Thirteen Republicans joined a unanimous Democratic caucus to vote in favor, exceeding the two-thirds majority required by the Constitution.

As Obama said:

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[34]It is worth noting that the Founding Fathers repeatedly cited the need for compromise as one of the greatest strengths of the U.S. political system.

I think it's fair to say that this has been the most productive post-election period we've had in decades, and it comes on the heels of the most productive two years that we've had in generations. If there's any lesson to draw from these past few weeks, it's that we are not doomed to endless gridlock. We've shown in the wake of the November elections that we have the capacity not only to make progress, but to make progress together.

Given the results of the 2010 elections and the fact that increasingly the Democrats in Congress represent the richest and the poorest constituencies, while the Republican Party is no longer the party of the wealthy but that of the disillusioned middle class and the ultra-wealthy, the indications for the 112th Congress are that, with a divided Congress and increasingly activist driven politics, conflict between the two parties will not only continue but escalate in the run up to the 2012 election.

One of the first moves by the House in the new 112th Congress was to vote, on January 19, 2011, to repeal the Health Care Bill by a margin of 245 to 189. However, this repeal cannot pass the Democratic majority in the Senate.

A shutdown of government in early April, 2011, was only just averted by a compromise that cut the budget by $38 billion. After much wrangling, the House passed legislation on April 14, to finance the federal government for the rest of the fiscal year. The final House vote was 260 to 167, with 59 members of the House Republican majority and more than half the Democratic minority voting against the legislation. The bill also passed the Senate 81 to 19, again with many Republicans opposed. On April 15, the House voted 235 to 193 to approve the fiscal blueprint for 2012, drafted by Representative Paul D. Ryan, Republican of Wisconsin and chairman of the Budget Committee. The blueprint proposed a cut in expenditure of $5.8 trillion over the next decade.

By July, it seemed that the political system was again in gridlock with the parties completely polarized over the question of the US public debt. The debt ceiling was at $14.3 trillion and the current US Treasury debt was $14.29 trillion.[35] Republicans demanded a reduction in spending and the maintenance of tax cuts, while Democrats basically wanted the opposite, continued spending on social programs and tax increases on certain segments of the population.

The House on Friday July 29, finally approved a plan for a short-term increase in the debt ceiling and cuts in spending. The vote was 218-210, with 22 Republicans unwilling to support the efforts by House Speaker, John A. Boehner, to get a bill approved. This ended a week of intense fighting among Republicans. The game then shifted to the Senate which tabled the House proposal. On August 1 the House of Representatives passed a compromise bill, 269-161, supported by Democrats, increasing the debt ceiling by $400 billion, with an additional $500 billion through February, with spending caps of over

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[35] Of this $6.2 trillion is held by the US government, $2.7 trillion in the Social Security Trust Fund, $1.9 trillion in other government agencies and $1.6 trillion in the Federal Reserve. China and Hong Kong hold $1.3 trillion, other countries hold $3.2 trillion, the remaining $3.6 trillion is held by pension funds etc.

$900 billion. A newly designed joint committee was vested with the responsibility of determining future cuts of over $1 trillion. The Senate passed the bill 74-26 on August 2 with 19 Republicans, and 6 Democrats and one independent voting against. President Obama immediately signed the bill into law. Despite the eventual compromise on the debt ceiling, on August 5, 2011 Standard and Poor, the credit rating agency, downgraded US Federal debt from AAA to AA+, and the Dow industrial index dropped about 20% in the following days. However, demand for U.S. Treasury Bonds increased.

Later in August the 2012 Republican Presidential primary season began. Early frontrunners included Tea Party darlings Representative Michele Bachman, Representative Ron Paul, and Governor Rick Perry. Former Governor Mitt Romney openly admitted seeking a more centrist route to the nomination but he will have to contend with activist money such as the PAC "Make Us Great Again" which plans on supporting Rick Perry to the tune of $55 million.

On September 13, President Obama acted on the economic turmoil set off by the Debt Ceiling debate, Standard and Poor downgrade and continuing European debt crisis by sending a $447 billion jobs bill to Congress. Initial reaction from Republicans indicated a willingness to accept some measures of the bill, coupled with an insistence on keeping tax cuts for the wealthiest and resistance to closing corporate loopholes.

The debate over the jobs bill highlights the fact that, despite media attention to the contrary, Obama has attempted to attract and retain pro-business social liberals with his response to the economic crisis. In addition to naming General Electric CEO Jeffrey Immelt as Chairman of the President's Council on Jobs and Competitiveness, the President's second Chief of staff is former Commerce secretary and bank executive William Daley. These steps, along with his massive budget proposals providing relief to banks and other businesses in order to address the economic down-turn, has angered many in populist circles. Meanwhile, insistence on closing corporate tax loopholes and the spectre of increased financial regulation, has eroded business support for the President.

This lack of support in both the populist and cosmopolitan quadrants leaves the President and his party vulnerable to attacks by traditionally conservative Republicans as well as to the more populist demands of the Tea Party. As a result of persistently high unemployment rates, populist anger has spiked and even spawned a second, distinctly liberal-minded populist group, the "Occupy Wall Street" protesters. Given how amorphous this groups interests are, as of this writing they have been unable to garner much support from mainstream U.S. politicians but they have begun to receive a great deal of media attention causing several dozen protests to spring up around the U.S. as well as Europe. So, barring a great increase in political clout by the "occupy Wall Street" crowd it is possible that the Republican Party will continue to gain votes from the blue-collar voters who are suffering the most from the economic collapse. Should the Republican party cater to the traditional populist demands expressed by those in the Tea Party, they will be hearkening back to an era of old-style populism as expressed by William Jennings Bryan: anti-Wall Street, anti-banking, anti-Detroit, anti-immigration, and pro-evangelical religion. This will result in a

party realignment to a situation where the socially liberal and economically conservative "cosmopolitan" Democrats are opposed to populist Republicans. That is, the Republican Party may begin to move to the lower left quadrant of the policy space, while some business interests in the upper right quadrant will switch to the Democrats.[36] Unlike the situation in Figure 1, over the long term, the partisan cleavage line may rotate further in a clockwise direction.

# 6   Land, Capital and Labor in U.S. History

The activist model presented in this paper can be used to explain the conflict of land and capital that dominated US politics in the nineteenth and early twentieth centuries and to some extent, still persists today.

Schofield (2006b) argues that Britain's ability to fight the long eighteenth century war with France depended on a compact between land and capital that was put in place by Robert Walpole, in the 1720's, and lasted until the repeal of the Corn Laws in 1846. The compact was based on the protection of the agrarian interest by customs and excise, and required the disenfranchisement of most of the population until the First and Second Reform Acts of 1832 and 1867.[37]

The Declaration of Independence by the thirteen colonies in 1776 was, in turn, triggered by conflict over land, specifically because of the attempt by the British to remove the Ohio Valley from settlement though the Quebec Act of July 1774. This Act led almost immediately to the First Continental Congress in October 1774, and was denounced in the Declaration itself.

In the United States after independence, conflict between Federalists, represented particularly by Alexander Hamilton, and the Republicans, James Madison and Thomas Jefferson, focused on capital versus land. Hamilton's Reports of 1790-1 on Public Credit, Manufactures and The National Bank were all aimed at creating an American analogue of the British system of tariffs and excise. Since the United States exported land-intensive goods, the only feasible path to creating a commercial economy was to sustain manufactures either by tariff or by direct government assistance. Hamilton rejected the Madison-Jefferson view that the future of the U.S. economy lay principally in the cultivation of the land. Indeed, in the Report on Manufactures, Hamilton argued that that the U.S. could grow only through an increase of productivity as a result of manufacturing.

Madison and Jefferson believed that Hamilton's commercial empire in the United States would generate precisely the same phenomenon of immoderation and disenfranchisement as had occurred in Britain. Hamilton's scheme would mean tariffs to raise revenue, increasing government debt, an extensive military

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[36]For example, on April 28, 2010 Arlen Specter, the Senator from Pennsylvania, shifted his allegiance from the Republican Party to the Democrats.

[37]The 1867 Act was the most extensive. See McLean (2001) and Acemoglu and Robinson (2000) for discussion.

See also Acemoglu and Robinson (2006a,b) for a discussion why Great Britain's path to economic development was not blocked by agrarian elites in this period.

establishment and corrupt "placemen." Jefferson's "Empire of Liberty" meant the exact opposite[38] and his election in 1800 saw the victory of the Democrat-Republican trade-oriented coalition of the slave-owning elite and free agrarian labor against the more urban north east.[39]

Until the election of Lincoln in 1860. the political coalition structure was "intersectional" between the eastern Whigs and the agrarian Democrats of the south and west. Lincoln's election was the result of the collapse of the agrarian coalition largely triggered by the Dred Scott opinion of the Supreme Court in 1857. Lincoln argued that this decision could lead to the expansion of slavery to the Pacific, against the interests of northern free labor.

Figure 8 gives a heuristic representation of the transformation in party positions between the election of Jefferson in 1800 and the onset of the Civil War.

[Insert Figure 8 here]

During the Civil War, the Tariff Acts of 1862 and 1864 were proposed as means to raise capital for the effort against the south, but as Taussig (1888) noted, in his classic treatise on the tariff,

> Great fortunes were made by changes in legislation urged and brought
> by those who were benefited by them.

By the Tariff Act of 1883, the average duty on aggregate imports was of the order of 30%, mostly on manufactures.

The second half of the nineteenth century had seen an enormous growth of agrarian exports from the U.S to Great Britain. As Belich (2009) notes, grain exports increased from a million tons in 1873 to 4 million by 1900, with similar increases in dairy and meat products. However, by 1900, the "Dominions" (Canada, New Zealand and Australia) began to replace the United States as the agrarian suppliers for Britain. At the same time, the United States began its somewhat delayed process of industrial development, making use of the transport infrastructure, canals etc that had been put in place in the previous decades. Belich (2009) suggests that the decoupling of the United States from Britain took place about 1900, by which time the population of New York had reached 3.5 million.

This decoupling sets the scene for the conflict between the manufacturing interests of the north-east, and their preference for the protective tariff, against the free trade preference of the south and west of the country at the election of 1896. In this election Republican William McKinley stood for the manufacturing interests and barely defeated the Democrat, William Jennings Bryan whose populist position for cheap money against the gold standard was strongly supported in the somewhat less populous agrarian south and west.[40] Figure 9 again

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[38] See the discussion of this period in Wood (2009)

[39] In this election, the Democrat-Republicans won 146 electoral college votes, with Jefferson and Burr, of New York, each receiving 73. The Federalists won 129 in total. Eventually Jefferson won the House with ten states to four for Burr. The three fifths weight given to unfree labor in the south had proved crucial.

[40] McKinley won 51% of the popular vote but 60% of the electoral college, taking the entire northeast along with California and Oregon.

gives a representation of the realignment between 1860 and 1896, while Figure 10 continues with the realignment as Wilson shifted to a position in the upper left quadrant of the political space. F.D. Roosevelt in the 1930's continued with this realignment.[41]

[Insert Figures 9 and 10 here]

The Smoot-Hawley Tariff Act of 1930 raised average tariffs to about 20% and is generally considered to have contributed to the dramatic fall in both imports and exports. By 1993, however, the massive economic growth of the post war years led to the North American Free Trade Agreement, in 1993, pushed forward by William Clinton. Even though populists, like Patrick Buchanan (1998) have hated the resulting globalization, it contributed to the period of rapid growth that came to such an abrupt end recently.[42]

This continuing realignment has changed the *heartland* of each of the two parties. In the late nineteenth century, the north-east was industrial and strongly Republican. The rest of the country was agrarian and Democrat. By the early part of our new century, the north-east was socially liberal and Democrat, while the rest of the country was basically socially conservative and Republican.

In recent years much discussion has focused on why North America was able to follow Britain in a path of economic development, but Latin America and the Caribbean islands, though generally far richer initially, fell behind in the nineteenth century. In their discussion of Latin American economic development, Sokoloff and Engerman (2000) have emphasized the different factor endowments of North and South America. In contrast, Przeworski and Curvale (2006) argue that while economic inequality tended to persist and has been related to the degree of political inequality, many aspects of the developmental path appear highly contingent. Indeed whether Latin American economies grew, and the extent to which they have protected the factors of capital and labor, seems to be dependent on shifting balances of power between differing activist groups, as suggested by the formal model presented in this paper.

Galiani, Schofield and Torrens (2012) have applied a variant of the model presented here to elucidate the conflicts that exist between activist groups which are characterized by their control of different economic factors. They argue that Latin American economies are *diversified natural resource-rich economies,* which tend to have an important domestic industry that competes with the imports. In such a political economy parties tend to diverge and trade policy is likely to be more protectionist and unstable. They suggest that uncertainty in policy has been one cause of the slower development path of these economies. In principle this extended model can incorporate activist and citizen preferences over levels of trade protection[43] and moves towards democratization.

Acemoglu et al (2008, 2009) discuss the hypothesis of "critical junctures" in discussing moves to democracy. Such a notion parallels that of uncertainty

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[41] See also Schofield, Miller and Martin. 2003.

[42] As at the end of the nineteenth century, the recent period in the U.S.has been characterized by increasing income inequality. According to the Economic Policy Unit, the top 1% of Americans currently own 34% of the net worth of the country.

[43] See Rogowski (1989).

over the nature of the various elite activist coalition that must choose whether to support the autocrat or reformers.[44]

This brief sketch of shifts in the dominant societal cleavages indicates how social choice in both developed and less developed polities will tend to be transformed as a result of essentially political changes in the balance of power between landed and capital elites in coalition with different elements of enfranchised labor. As the Tea Party has shown in 2010, various elites, primarily in the south and west, have successfully mobilized against entrenched capital elites (largely cosmopolitans) in the wake of the economic crisis. These "landed" elites have mobilized socially conservative labor, especially older middle class labor, to vote for the GOP. Disillusioned young labor and discouraged capital elites failed to turn out for Democrats, leading to large Republican gains.[45] Due to the economic crisis and President Obama's frequent populist tone, capital elites (ie. bankers) did not fund Democrats in 2010 to the levels they did in 2008.

The ultimate compromise between land and capital in the U.S. occurred in 1787 when the Senate was created to appease states with small populations, like Delaware. This "Great Compromise" still deeply influences United States politics. In the 111th Congress the Democrats in the Senate represented more than 63 percent of the United States population but held only 57 of the 100 Senate seats.[46] The result was months spent stuck in gridlock over healthcare legislation and many other pieces of the legislative agenda left to die in committee. The Democrat's super-majority was insufficient to overcome the filibuster precisely because each state receives two senators, regardless of the state's population[47]. In a sense, the landed elite in the U.S. has currently won a skirmish with the capital elite because of a constitutional decision made more than two hundred years ago.[48].

# 7  Concluding remarks

The volatility of recent elections in the United States has provided a window into how democratic elections can lead to extremely non-convergence behavior. Activist valence has also played an increasingly large role in U.S. elections of

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[44]Schofield and Levinson (2009) have applied an early version of the model here to discuss the collapse of autocracies in Argentina, Franco's Spain and the Soviet Union.

[45]Youth voter turnout declined substantially from 2008 to 2010.

[46]This is calculated by determining the population of the state and the party of the Senators that represent that state. In the 112th Congress the Democrats represent more than 60% of the U.S. population but hold only 53 of the 100 seats in the Senate. These calculations do not include Washington D.C. which does not have representation in the Senate.

[47]As of 2010 Wyoming had a smaller population than Washington D.C. but Wyoming continues to have two Senators and a Representative while Washington D.C. has only a non-voting Representative.

[48]Acemoglu and Robinson (2006b) discuss the attempts by agrarian elites in countries such a Russia and Austria- Hungary in the nineteenth century to resist industrialization. There may be an element of similar resistance by certain elites in the U.S. to the transformation to an advanced idea dependent economy of the kind discussed in Jones (2002) and Jones and Romer (2009).

late, especially since the *Citizen's United* Supreme Court decision in January of 2010. It is increasingly apparent that the increased polarization that has led to turnover in Congress. Volatility in American politics is a natural result of a system developed more than two hundred years ago on a basic premise that political parties would not play a role in American politics. Given this background, this paper has applied a theoretical stochastic model to present a discussion of recent elections in the United States. We have also applied the model to earlier realignments in the fundamental political configuration as the the economy shifted to manufacturing in the late nineteenth century and early twentieth century.

We argue that money has made US politics irrational. With money playing an increasingly large role in recent elections, this irrationality and non-convergence to the electoral center is likely to persist. Moreover, powerful activist groups in the cosmopolitan and populist sectors have the potential to draw in politicians and shift the partisan cleavage line between parties. Were it not for the resources the activist groups provide it would be irrational for politicians to move toward these activist bases . Simply put, activists influence politicians so they adopt policies that would be electorally irrational, were it not for money.

Popper (1988) argued that plurality electoral systems, otherwise known as "first past the post" were to be preferred to proportional electoral systems because they gave voters a clear choice. As we have seen, the constitutional structure of the US polity, coupled with the influence of money has recently tended to gridlock. Although there is the appearance of choice for the voters, government has been unable to come to grips with the severe quandaries briefly mentioned in the introduction. The absence of effective choice by the US increases uncertainty in policy-making thus creating a difficult situation for business and international leaders attempting to make long-term investments and policy decisions. Indeed, Posner and Vermeule (2011) argue that the United States needs to reconsider its constitutional separation of powers in the presence of such gridlock and uncertainty.

On the other hand, the recent European debt crisis has led to the fall of governments in the multiparty systems of Ireland, Greece and Italy. Thus fragmented or proportional, multiparty systems also seem to create difficulties in dealing effectively with the fall-out from the recession of 2008-9.

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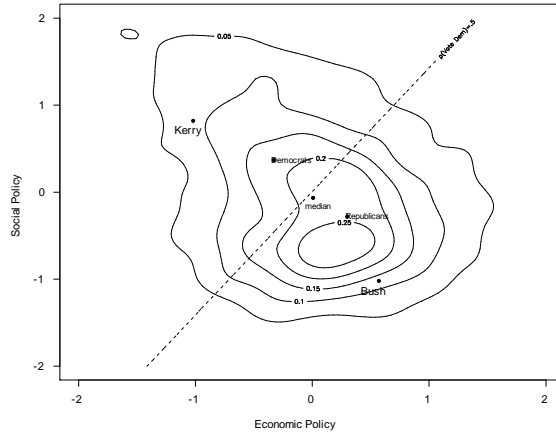[88] Wood, G.S. 2009. *The Empire of Liberty,* Oxford University Press, Oxford.

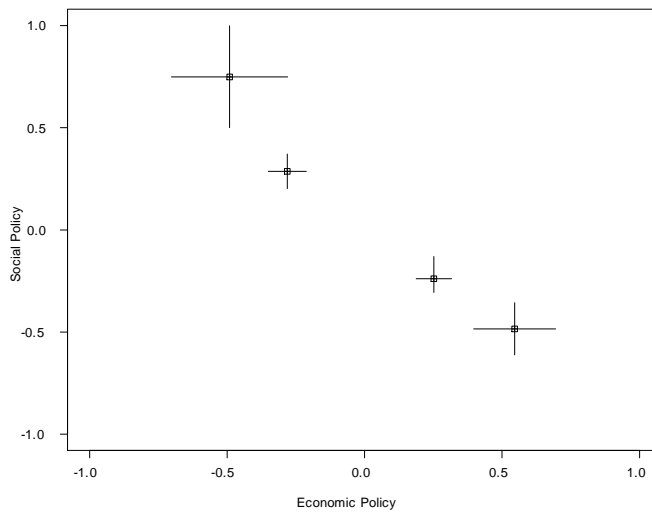Figure 1: Electoral distribution and candidate positions in the United States in 2004



Figure 2: Comparison of mean partisan and activist positions for Democrat and Republican voters in 2004 (error bars are larger for the mean activist positions.
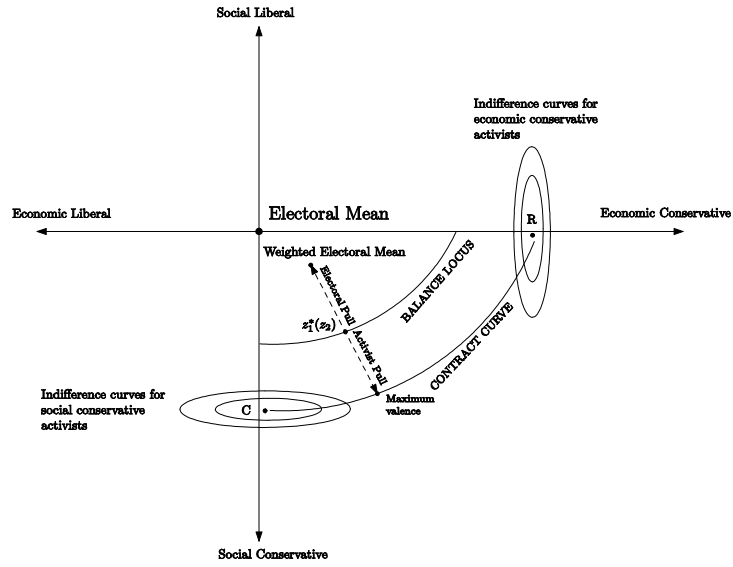
Figure 3: Optimal Republican position
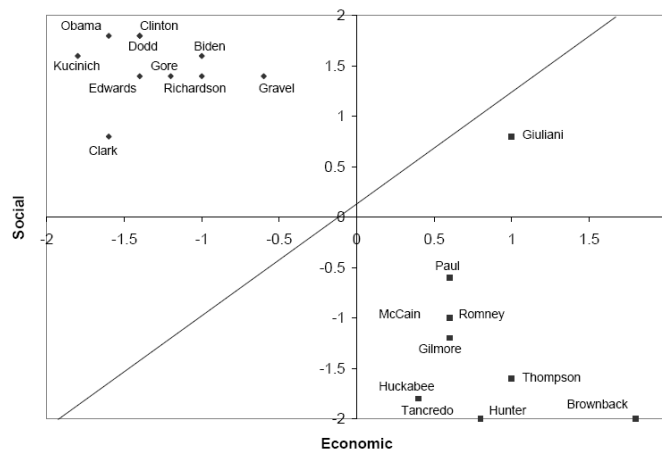


Figure 4: Positions of Republican and Democrat Candidates in 2008
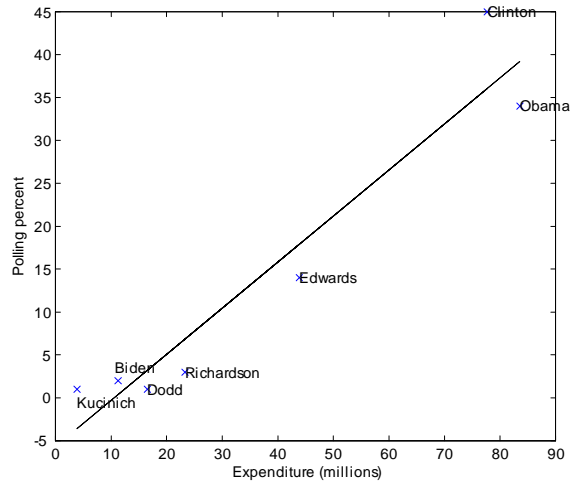
Figure 5: Democrat candidate spending and popularity, January 2008
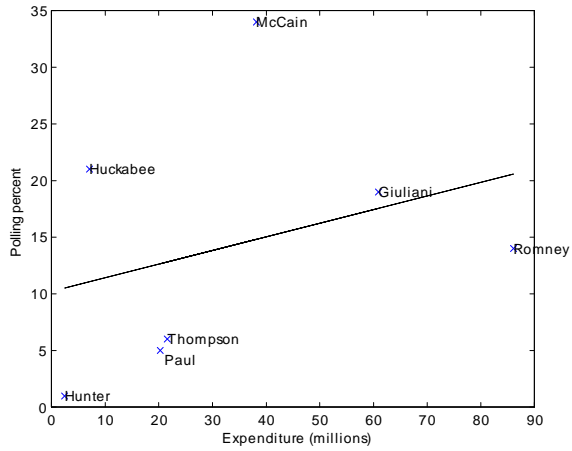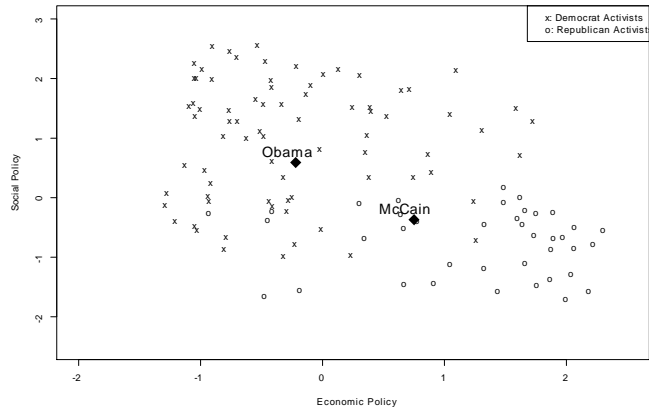


Figure 6: Republican candidate spending and popularity, January 2008

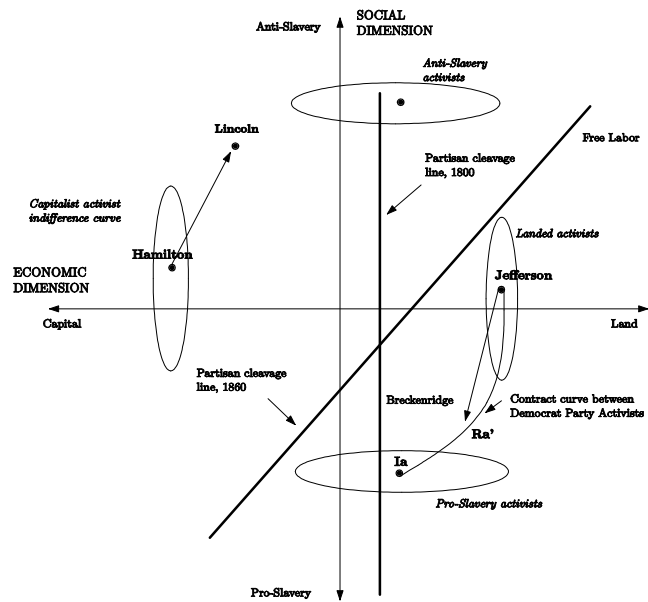Figure 7: Estimated US Presidential candidate positions in 2008 and activist positions



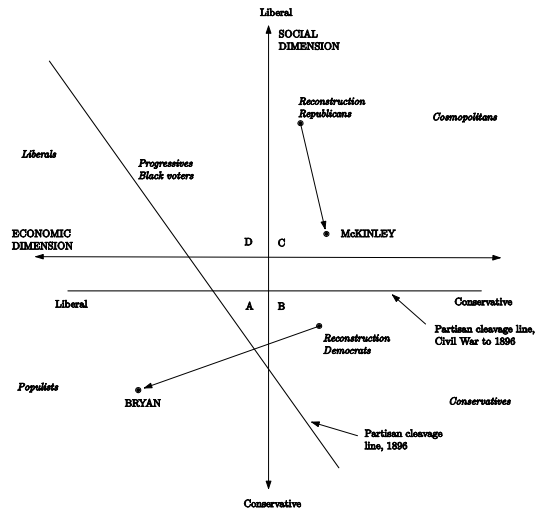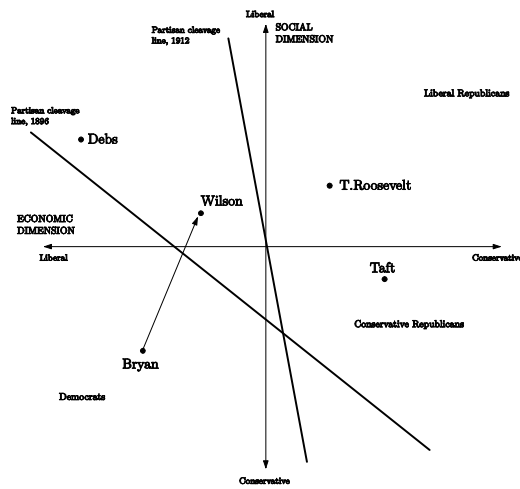Figure 8: Changes in political realignment 1800-1860

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Figure 9: US realignments 1860-1896



Figure 10: The election of 1912

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