Policy Dynamics of Conferring the Median Mandate*

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Abstract

Popular control over public policy is a characteristic of contemporary democracies. That is the conclusion drawn from theoretical and empirical extensions of a median mandate conception of democratic representation and policymaking. Theoretical analysis of the prospects for representing median voters demonstrates it can be achieved largely on the basis of three non-demanding conditions: (1) divergent and dynamic party policy positions that bracket the position of the median voter, (2) elections that produce alternating partisan control of government, and (3) a pace of policy change that proceeds slowly. Empirical analysis of policymaking, with respect to the size of central governments’ political economies and the scope and breadth of their welfare states, demonstrates how policy outcomes become aligned with median voter preferences in the long run through slow-paced policy responses to short-run median voter partisan choices.

* This paper relies on ongoing work with Ian Budge and, more generally, Budge, Hans Keman, and Paul Pennings. In that sense it is a collaborative effort presented as a sole-authored paper in the instance of this first draft until they have an opportunity to improve my arguments and correct any errors.

Popular control of public policy is among the important promises of democracy. In theory, free and fair elections provide the democratic control mechanism. Is it so in fact? Can it be so? These questions have occupied the attention of political thinkers for more than two millennia. A fair generalization about the answers arrived at by contemporary political science is to say that for every analysis showing democratic elections and their resulting politics have predictable policy consequences, there seems to be another analysis wondering whether policy control is beyond the reach of “the people’s” political action: asking, do important circumstances—globalization, demography as destiny, ... —push the instruments of control beyond the reach of normal democratic political processes?

There have been three near-constants in various scholarly conclusions about democratic policy making. Differences among systems are strongly dependent on social and economic contexts (research beginning with, notably, Dye 1966, Hofferbert 1966, and Sharkansky 1967). Changes within systems are incremental (research beginning with, notably, Davis, Dempster, and Wildavsky 1966). Political choices matter but usually only in fleeting and conditional ways (e.g., Blais et al. 1994). My purpose here is to bring these three together under the thematic umbrella of a median mandate view of democracy (McDonald and Budge 2005) and construct a framework for understanding how democratic representational processes create popular control of public policy.

The median mandate is a two-pronged thesis. One prong describes the politics of representation; the other describes the process of democratic policymaking. Both prongs figure prominently in the discussions and analyses below. I begin with a re-evaluation of the median mandate’s theoretical construction of political representation. This is a shoring exercise, designed to strengthen two pillars of the thesis: by (1) more clearly identifying the causal mechanism that puts policies in line with the people’s preferences, and (2) more fully specifying the dynamics that keep policies in line with the people’s preferences. Section three puts this shored up version to a series of empirical tests by looking to see whether the people are in control of outcomes in two central areas of public policymaking: the size of a nation’s political economy and the scope of its welfare state.
Representation through the Median Mandate

The median mandate’s core idea with respect to political representation maintains that the median voter (MV) finds his or her views, structured by Left-Right thinking, represented by the median party in parliament (MPP). Six empirical conditions plus the theoretical power of the median in collective decision-making are sufficient to make the median mandate work (McDonald and Budge 2005, 25-7, quoting).

1. **Party distinctiveness** - at least two parties have policy positions that differ from one another.

2. **Vote information** - voters recognize the policy profiles of the parties.

3. **Voter motivation** - voters cast their ballots on the basis of the party policy position they prefer to see in control of policy-making.

4. **Shared party-voter alignment** - voters and parties arrange their public policy preferences within broadly the same policy space, probably a Left-Right dimension.

5. **Electoral system translation** - the election outcome makes the party supported by the median voter the party with which the median parliamentarian affiliates.

6. **Party policy commitment** - parties are motivated by a desire to see their own policy position control policy-making to the greatest extent possible.

7. **Power of the median** - the occupant of the median position is crucial to the creation of a majority in both the electorate and parliament.
   
   (a) Majority-endorsed preferences tend towards the median voter position, so this forms the best indicator of popular policy preferences in general.
   
   (b) Public policy tends towards the policy of the parliamentary median under legislative majority voting procedures.

All conditions, except for voter motivation, appear to be in place. By most any account, condition 1 holds. Parties stand distinct from one another along a Left-Right dimension (Budge et al. 2001; Castles and Mair 1984; Huber and Inglehart 1995; Laver and Benoit 2006; Klingemann et al. 2006) and along dimensions of specific salient policies (Laver and Hunt 1992; McDonald and Budge 2005, 81-89; Benoit and Laver 2006). In accord with condition 2, voters recognize party positions (Klingemann and Inglehart 1976; Sani and Sartori 1983). Given the recognition of party positions and the ability of voters to place themselves along the Left-Right dimension in a meaningful way (Converse and Pierce 1986; Pierce 1999), condition 4 is in place. Most of the time electoral systems
translate votes to seats so that the party preferred by the MV is also the MPP (McDonald and Budge 2005, 28). Parties in office pursue the policies consistent with the positions they put on offer to the voters (Budge and Hofferbert 1992; Klingemann, Hofferbert, and Budge 1994; McDonald, Budge, and Hofferbert 1999; see also Sullivan and O’Connor 1972; but, for statements of doubt, see King and Laver 1993; 1999). Condition 7, the power of the median, is well established theoretically (Black 1958, 14-25).

A Causal Mechanism Animating the Representational Process

The catalyst that puts and keeps the representation process in motion is electorate choice, motivated according to condition 3 by voters wanting to see the party policy position they prefer take control of policy-making. If this is so, representational prospects are good (McDonald, Paskeviciute, Best, and Cremona 2004, see also Cremona 2006; McDonald 2006). There would be something close to direct, one-to-one, responsiveness between the MPPs’ (or governments’) and MVs’ Left-Right positions. There would be no long-term bias, meaning no tendency for governing positions to be persistently to the Left or Right of the MVs’ positions. Distortion, the average magnitude of incongruence between the MVs and MPPs, would be much like that shown empirically by Powell and his colleagues: mismatches everywhere and, relatively speaking, more congruence in multi-party proportional representation (PR) systems than in two-party single-member district plurality (SMDP) systems (Powell 2000; Huber and Powell 1994; Powell and Vanberg 2000, see also McDonald, Mendes, and Budge 2004).

Alas, the idea of a policy motivated electorate is dubious. Certainly doubt is warranted in the strong form of the assumption. Not many voters satisfy the requirements of being issue voters (Converse 1964, Converse and Markus 1977; Converse 2000). Arguably, though, in its weaker form, when voters are treated as a collective electorate, as Ben Page and Robert Shapiro have shown, it is possible to go from “individual ignorance to collective wisdom” (Page and Shapiro 1992, quoting from p. 15). Even viewed collectively, however, there have to be doubts about an ever-present policy motivation. Donald Stokes, for instance, has shown that in the context of American politics the powerful dynamic element in the contests for the presidency is the net personal appeal of the candidates (Stokes 1966). And, in this same context, Robert Erikson, Michael MacKuen, and James Stimson are able to predict the presidential choice
of the American electorate from median voter policy proximity to the parties only after controlling for macropartisanship and, indirectly, economic performance (Erikson, MacKuen, and Stimson 2001, 242-76). That controls are needed means issues, candidates, and partisanship each receives some weight when the American electorate decides. No one feature by itself predicts which party wins an electoral plurality, including, importantly for theoretical purposes under condition 3 of the median mandate, policy proximity between the winner and median voter.

Are the doubts confined to American politics?—not very likely. Given that most electorates can be characterized as being close to normally distributed on the basis of individual self-reports of Left-Right positions (see, e.g., Powell 2000, 168), a policy motivated electorate is expected to advantage centrist parties. Nevertheless, Lawrence Ezrow has shown that centrism brings only modest vote rewards in multi-party systems (Ezrow 2006). Even in predominantly two-party systems—viz., Australia, Britain, Canada, New Zealand (pre-1996), and the United States—and considering only the two main rivals, Rachel Cremona and Michael McDonald have shown only a slightly better than chance tendency for the more centrist of the two parties to win a plurality (Cremona and McDonald 2006).

How can a democratic world—in which parties can be rationally assumed and can be inferred on the basis of evidence to use different competitive strategies (Budge 1994; Laver 2005) in pursuit of multiple goals of policy, office, and votes (see, e.g., Müller and Strøm 1999) and in which electorates give more and less weight to issues, candidates, and partisanship in different elections—coordinate the relationship between, on the one hand, parliamentary and government policy preferences and, on the other, the people's policy preferences? However one might answer this question, all the available evidence requires a theory of electoral democracy to accommodate parties that, depending on the circumstances of the day, compete by emphasizing either their policy prescriptions, past competence, association with various groups, leader personality, failures of the opposition, etc., and electorates that, depending on the circumstances they implicitly deem relevant collectively, choose on the basis of issues, candidates, or longstanding partisan sympathies. Those are the realities of parties and electorates. Theories that require a monolithic incentive for either parties or electors, because a mono-causal force is assumed to drive the outcome, are doomed to fail as empirical descriptions.
Instead of thinking that parties provide the important dynamics of the representational process by being highly strategic actors or that voters provide the dynamics by being consistently policy motivated, imagine that “sometimes parties lead and voters follow, while at other times voters lead and parties follow” (McDonald and Budge 2005, 191). Parties can lead by offering policies within the range of acceptability to voters but, under the political circumstances of the day, gain electoral benefits by emphasizing a particular issue or an especially appealing candidate or the failures of opposition, ... , or any mix of all of these. In those cases, voters are willing to be led in the policy direction of the party they support, given policy in an acceptable range and electors’ concern over a currently heightened non-policy consideration. Voters can lead by choosing on the basis of party policy at any election they collectively so choose. In other words, instead of assigning particular motives to parties and voters, imagine parties use different tactics in different elections and electors are motivated by various considerations that receive more and less weight in different elections.

It turns out that as long as a major party on the Left brackets the median voter on that side and a major party on the Right brackets the median voter on that side, elections are robust enough in the long run to produce responsive, unbiased, and congruent representation of median voter positions, despite mixed tactics of parties and mixed motives of electors. Simulated electoral outcomes for, first, two-party systems under SMDP rules and, second, three-party systems under PR rules help to show how this works.

The two-party simulations (1) place the median voter somewhere between the two major parties by setting the mean equal to the midpoint between the two major parties with a standard deviation equal to .15 of the width of the interval between the parties, which all but ensures that the MV will be bracketed by major parties on the Left and Right (in the simulations at hand it does ensure this), (2) place the major Left and Right parties at means of -13 and +13, each with a standard deviation of 13, and (3) select the plurality winner as a random draw.

The results are shown in Figure 1. Randomly moving divergent parties and random selection of winners produce responsive, unbiased, and (somewhat) congruent representation of median voter positions. Responsiveness is not perfectly direct; the slope coefficient is only .82, not too far from one-to-one. Bias is essentially zero (intercept
statistically indistinguishable from zero). Congruence is arguably reasonable but just as arguably wanting—there is fairly wide scatter (SEE = 16.5, average magnitude of the difference between winning parties’ and the MVs’ positions is 9.1)—and that requires separate attention, below, after considering three-party systems.

The three-party simulations have to take account of the governing position not following directly from a plurality winning party. Thus the three-party simulations (1) place the median voter somewhere between the left- and right-most party through the same formulation as for the two-party simulations, (2) place the major Left and Right parties at means of -13 and +13, the centrist party at mean = 0, and assign a standard deviation of 13 to all three, (3) select the plurality winner as a random draw, and (4) designate the governing position as the weighted average of the MPP and the plurality party positions, with weights of .4 assigned to the MPP and .6 to the plurality party with the proviso that when the MPP is the plurality party it randomly chooses to coalesce with the party to its left or right.

The three-party simulation results are shown in Figure 2. Here, too, we see policy representation of the median voter is responsive (slope = .47), bias is statistically indistinguishable from zero (intercept = 0, at \( p < .05 \)), and congruence is arguably reasonable (SEE = 10.9). The major difference between the three-party and two-party system outcome is that governing positions in three-party systems are more centrist. The centrist tendency mutes responsiveness compared to what we saw in Figure 1 for two-party systems but produces more congruence. This is just the sort of system tradeoff usually surmised (e.g., Ferejohn, 1999) and shown to exist (e.g., Powell 2000).

Electoral democracy is robust. Amazing as it may first appear, randomly moving divergent parties and random selection of winners is associated with somewhat responsive and essentially unbiased policy representation. That means, electoral democracy can function reasonably well under a few non-demanding conditions: (1) parties diverge, (2) party positions move around, (3) party positions bracket the MV, and (4) winners

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1 John Ferejohn says what the scatterplot and statistical results of the simulation show. “To me, the principle defect of PR is the weakness of electoral responsiveness—the relationship between electoral expressions of public opinion and public policy.” (Ferejohn 1999, 45).
alternate. With more order, for example, if party positions correlate with one another, which they do in many countries, representational prospects improve. If centrist helps a party’s electoral prospects once in a while, which it has a slight tendency to do, representational prospects improve. To wit, elections do not have to work in the random ways of the simulations to produce responsive and unbiased policy representation. Rather, the results show, even if they do, elections can function as a mechanism of popular control of public policy. A mixture of party strategies and/or a mixture of voter motivations are not crippling problems for the representational prospects of democracy.

Finally, if it is not already apparent, this important implication can be added. When it comes to specific policies—e.g., welfare—if the median elector’s preference is bracketed by the party positions on the specific policy, then a MV’s position for that specific policy is going to receive representation. Responsive, unbiased, and (somewhat) congruent representation exists issue-by-issue.

The Role of Slow-paced Policy Change in the Representational Process

The one unsettling aspect of the simulation results is the arguably large amount of incongruence in the aftermath of any single election. This is where the slow pace of policy change enters.

Take a well known conjecture as a contrarian starting point. Thinking particularly about policy representation in Westminster style two-party systems, John Aldrich finds it plausible to worry that policy trajectories shift dramatically back and forth as party control alternates (Aldrich 1995, 11). Seldom is any electoral outcome close to the MV in policy terms. Rather, incongruence is the order of each and every day. Taking solace in the long run is a phantom, it might be said, inasmuch as no person ever really lives to experience it (as J. M. Keynes famously remarked).

That is but one view, and built into it is the assumption that the governing position of democratic governments track the policy prescriptions of the winning party or

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The simulations were once built with a close eye on empirical findings with respect to parties and electorates (see McDonald, Paskeviciute, Cremona, and Best 2004). That is still largely true, but the one condition the current simulations fail to respect is the dynamic variation of MV positions. On the metric used here, evidence from Erikson, MacKuen, and Stimson (2001) and Adams, Clark, Ezrow, and Glasgow (2004) indicates the MV standard deviation is in the neighborhood of 2 to 5. The reported simulations place a median voter “somewhere” in the interval between the major Left and Right parties, and that leads to a standard deviation of about 10. This alone artificially attenuates the slopes, the responsiveness. Therefore, it remains important to employ augmented simulations to ask whether responsiveness is decidedly less than one-to-one; based on the present analysis it is premature to conclude it is.
governing coalition in the immediate aftermath of an election. Try as winning parties and governing coalitions might to move policy in their own desired direction, and they do make such proposals (McDonald, Budge, and Hofferbert 1999), policy enactments in democracies are constrained. Empirical theorists at least as far back as Alexander Hamilton, in his call for an energetic executive to overcome the shortcoming from inaction he thought would result from collective deliberation and decision (Federalist #70), recognize collective decision making by its nature is slow paced. This argument has retained its currency through the centuries (see, e.g., Olson 1982). Beyond argument, policy analysts have found much empirical support for slow-paced democratic decision making, as is apparent in the numerous findings labeling policymaking incremental and, more recently, path dependent. Furthermore, behavioral research has found that a desire for gradual reform, in contrast to either a vigorous defense of the status quo or a strong desire for revolutionary change, is an important attitudinal foundation for democracy (Muller and Seligson 1994). Normatively, too, at least within a liberal democracy framework, slow-paced change is justifiable by the opportunities it provides for individuals to adjust their own decision-making so as to control their life circumstances as government policy changes.

A short series of calculations and a brief description, as applied to the two-party situation, which is where congruence is especially wanting, should suffice to make the point that, if slow pace policy change exists, congruent representation is a reasonably accurate theoretical expectation.\(^3\)

Imagine that over two generations of time Left and Right parties alternate in office in a series of four, eight, and twelve year intervals. Elections change the policy target; indeed, that is a role of elections. They act as the catalyst putting and keeping the representational process in motion. A formulation that captures the target and movement toward it can be stated as a partial adjustment equation.

\[
\text{Governing position}_t = (1 - \beta) \text{Target}_t + \beta \text{Governing position}_{t-1}.
\]

This says that the Left-Right governing position at time t is set according to a target value, which comes from the Left-Right position of the winning party. Whether that target is reached immediately after an election depends on the pace of policy change, set according to the value \((1 - \beta)\). Implicit in the image of dramatically shifting policy trajectories is the

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\(^3\) The following discussion borrows directly from Cremona and McDonald (2006).
idea that the slope value is zero (i.e., $\beta = 0.0$), a full-scale rapid pace of change (i.e., $1 - 0 = 1$, a full scale change). Imagine, instead, the pace of change is much slower, with $\beta = .8$, for example. Movement toward the target will be slow—$1 - .8 = .2$, which is to say that movement toward the target occurs at a rate of .2 units of the difference between last year’s governing position and the target.

As a simple example, take a current governing position of 0.0, a pace of change implied by $\beta = .8$, and a new target of +10 as set by the newly elected party. In the year after the election the governing position will not move immediately to +10 in this slow-paced system; rather, it will head toward +10 at a pace of .2 units of the difference between where it has been (Governing position$_{t-1}$, zero in this hypothetical) and where it is ultimately going (Target, +10 in the hypothetical). In year one it will go from 0 to +2 (last year’s zero position plus .2 of the difference between +10 and 0); in year two it will go from 2 to 3.6 (last year’s +2 position plus .2 of the difference between +10 and +2); in year three it will go to +4.88 (last year’s +3.6 position plus the .2 of the difference between +10 and +3.6). After three years the governing position will have moved not quite halfway to the target. After another three years, the position will again move halfway, to about 7.5. But, of course, before this happens the governing party with a target of +10 is liable to be replaced by the other party with a governing position of, say, -10. When that occurs, if it does, the governing position moves back toward and through the zero point. If the median voter is consistently around the zero point, the governing positions will not ever have drifted too far from the median voters’ positions.

To explore policy representation across something like two generations, we have randomly selected twelve election outcomes from the 1000 shown in Figure 1 and treated them as a sequence, imaging that each winner has held office for four years and therefore, in all, looking at a series of forty-eight years. We arbitrarily start the process with the first $t-1$ governing position at zero. The winning party Left-Right position at election #1 is +9.18. For election #2 the winning party is at +1.79: thereafter, #3 = +0.09, #4 = -6.80, #5 = +23.08, #6 = +5.36, #7 = +14.40, #8 = +16.04, #9 = -14.05, and #10 = -3.28.4

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4 The corresponding positions of the hypothetically simulated median voter values, in the random selection of twelve sequential outcomes, are -1.85, -4.80, +0.67, -6.76, +4.84, +7.45, +0.23, -5.66, +4.93, -2.35, -8.19, -0.28.
Figure 3 shows the Left-Right positions of (a) the winning party, (b) the median voter, and (c) the governing position given the slow pace of policy change. Clearly the slow pace keeps the governing position in closer proximity to the median voter positions than are winning parties' target values. In other words, the slow pace of policy change reduces the incongruence that would result were the governing position to move immediately to the position each winning party has put on offer in its election manifesto. The average incongruence between the median voter and winning party position is 9.1, and the incongruence is cut almost by half, to 5.1, when calculated as the difference between the median voter and slow-paced governing position.

In short, the slow pace of policy change in democracies can do much to mitigate the incongruence between the policy positions of the median voter and governing actions of winning parties. In combination with the theoretical expectations of responsive and unbiased representation, under the conditions specified, it is possibly understandable how reasonably accurate representation can be achieved.

Summary

It is plausible to think that popular control of public policy is achieved through a median mandate conception of electoral democracy. Three core elements are (1) divergent and dynamic party policy position taking, (2) alternating control of government, and (3) a slow pace of policy change.

- From divergent and dynamic policy positions come, through time, a variety of policy offerings.
- From electoral choice comes alternating party control, which together with the divergent and dynamic party positions produces variety in parliament and government policy positions that correspond, loosely but consistently, to the dynamic Left-Right movements of median voters.
- From slow-paced policy change come decisions of governments seldom too far removed from preferences of a median voter.

Parties organize democratic choice; elections are the instruments of choice; the slow pace of change keeps outcomes reasonably consistent with the expressed preferences of electors.
Do Elections Direct Policy?

Policies are best characterized as policy regimes in the view of the median mandate. A country's policy regime is organized in relation to structural features, and it changes, usually slowly, in response to sustained movements of the nation’s structural features. Some forces operating on a policy regime appear to be almost exclusively structural inasmuch as they present near-constants within the timeframe of several generations—e.g., a country's constitutional order. These almost exclusively structural forces often go a long way toward explaining policy differences between and among nations. Policy change does occur, however, and when it does sustained change comes in response to the dynamic structural forces. These, too, matter mostly in the long run but year-to-year twists and turns matter too, if and when there are sustained movements. Socio-economic contexts and, as we shall see, partisan politics are good candidates for inclusion under this label.\(^5\)

The analyses that follow proceed in three steps. They begin with a descriptive analysis of two policies: the size of national political economies and scope and breadth of welfare states. This descriptive analysis establishes, first, the regime nature of these policies and, second, the plausibility of whether a hypothesized force operating on the regime is, more or less, structural or dynamic. The second analysis looks at a time series of cross-national comparisons and evaluates whether the hypothesized influences persist year to year. The third analysis pools the cross-national and cross-time evidence and evaluates whether the policy consequences hypothesized by the median mandate hold cross-nationally and cross-temporally. The results, overall and in each of the three subsections, show how popular control over public policy takes hold and sustains itself across about a generation’s time in more than a dozen Western democracies.

\(^5\) The distinction between almost exclusively structural and dynamic structural forces is conceptual, but more empirical than theoretical. Both types of influences are structural in the sense that they have long-run effects on actual policies and therefore are capable of explaining differences between and among nations, but the dynamic forces are ones that frequently change in the short-run and, if their changes persist, have long-run, slow moving consequences for the policy regime.

A third category of policy influences are transient forces. These have short-run dynamic influence, but their changes do not much distinguish one policy regime from another because they vary more through time than across nations, their changes do not often move persistently in one direction, and their effects in the short-run are not necessarily the same as their long-term consequences. Inflation might be a good candidate for inclusion under this label. Its change is episodic, and its effects, at least in the welfare policy area, appear positive in the short run and negative in the long run (compare Huber and Stevens 2001, 66-84; and Wilensky 2002, 430-45).
Descriptive Analysis

Evidentiary Foundations. Table 1 lists the countries for which we have data on the size of central governments' political economies and welfare states, plus a set of social, economic, political, and institutional indicators for sixteen (total spending) or thirteen (welfare spending) nations from 1975 through 1993. The two policies are indicated by expenditure data from the International Monetary Fund’s Government Finance Statistics Yearbooks. Columns 1 and 2 report the across-time means, by country, for total expenditures (column 1) and social security and welfare (column 2), each as a percentage of a nation’s gross domestic product (GDP).

[Table 1 about here]

The single most important fact to note is the much greater spending variation across countries than across time within countries. Across countries, total expenditure means range from a low of 21.2 in Switzerland to a high of 51.2 in the Netherlands, with an overall mean of 36.6. As reported at the bottom of column 1, a set of fifteen nation-dummy variables accounts for 89.3 percent of the total variation. Within-country time variation is indicated by the standard deviations for each separate country. These are relatively small, compared to the differences from one nation to the others. Common, year-to-year time variation is indicated by the proportion of variation associated with the set of eighteen dummy variables for the nineteen years (withholding one to serve as the base year). Common year-to-year time variation accounts for only 4.5 percent of the total, and most of that (.027/.045) comes from a trend associated with cyclic movements of rising total expenditures through about 1986 and a leveling off thereafter. Similar patterns of

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6 The sixteen nations are identified by name in the table.

We collected expenditure-series data from 1972 through 1995 for all sixteen nations. However, missing data pose a problem for calculating mean values across years. Data for the early years are especially spotty, and thus the averages in Table 1 use 1975 as the starting year. To ensure cross-national comparability of means, interpolations (linear) had to be used in a few cases. Total expenditure interpolations involve Switzerland from 1985-90 and New Zealand for 1990. Consistency in the social security and welfare category is even more troublesome. There are not consistent series for Belgium, Ireland, and Italy, forcing them to be dropped from the welfare analysis. In addition, welfare numbers for Switzerland in 1985-90, New Zealand 1989-90, and Norway 1978-79 are interpolations. France's welfare spending is missing in 1994 and 1995 and thus, given that extrapolation is riskier than interpolation, the means for the period 1975-93 are used in this first-stage analysis.

Interpolations and the end point of 1993 are used only for mean values. In all subsequent analyses, data coverage is 1975-95 and missing expenditures are merely left missing.

7 Data are from four yearbooks—1984, 1992, 1996, and 2002—where the spending numbers are reported in Table B’s top line (total expenditure) and line 6 (social security and welfare)
variation hold for welfare spending. National averages differ substantially, from a low of 6.8 percent of GDP in the U.S. to 19.3 percent in Sweden, with an overall mean of 13.2. Almost ninety percent of all welfare spending variation is cross-national. Only five percent is common to years, with most of the time variation imbedded in a trend/cycle—rising until the mid-1980s, leveling off for a few years, and rising again in the early 1990s.

These are patterns one should expect for policy regimes—a large amount of cross-national distinctiveness persists through time but for small trends and cycles. It should be said, also, that while no single indicator of political economy policies can cover the scope of the concept of a policy regime, these expenditures are valid indicators.\(^8\)

As for the structural and dynamic features that influence these regimes, Thomas Plümper and Vera Troeger show that evidence of the conceptual status of different types of influence—i.e., independent variables—can be culled from the naïve statistical models in much the same way just applied to illustrate the spending variables represent policy regimes. That is, one compares how much variation in the hypothesized independent variables is associated with nations versus time (Plümper and Troeger, n.d.). The nearly exclusive structural forces vary almost entirely across nations; dynamic structural forces vary by a mix of nation and time.

One persistently different institutional arrangement important to the spending regimes of central governments is the degree to which governmental functions are centralized. Our centralization measure is based on the seven-level categorizations reported by the IMF's *Government Finance Statistics Yearbook*. These are collapsed into

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\(^8\) The policy regime concept is multifaceted, involving multiple dimensions clustering in one form or others that can be described as national configurations of types. Applied to a nation's political economy generally and social security and welfare political economy specifically the dimensions include not only the size (the main facet here) but distributions within subcategories, roles assigned to market forces for production and distribution of goods and services, generosity with respect to individuals, generosity with respect to societal wealth, scope of coverage, and more (see Esping-Andersen 1990, 18-32; see Allan and Skruggs 2004, 497-98 for a discussion of the limitations on expenditure data as a source indicator of multiple facets of policy regimes and Huber and Stephens 2002, 50-55, for a more relaxed appraisal of analyzing expenditures). All in all, however, these expenditure numbers are a good approximation and provide a useful series. As a cross-validation check, consider the fact that total government spending is correlated with de-commodification regimes (Esping-Andersen 1990, 52) at \( r = .43 \), and if we take into account the constitutional variation in spending associated with state spending centralization, itself essentially uncorrelated with de-commodification \( (r = .03) \), together the \( R^2 \) is \( .86 \). Average welfare spending correlates with de-commodification at \( r = .73 \), and with spending centralization added the \( R^2 \) is \( .80 \). Also, recent work by Steve Lem shows that when several forms of analyses reported below are applied to Skruggs' de-commodification time series the results are consistent with those for spending (see Lem 2005; 2006).
three categories—column 3, Table 1. Virtually all the variation in this variable is cross-national, 96.2 percent. The only over-time variation comes from Switzerland’s transition from low to medium centralization during the 1980s. The two least centralized nations are Canada and Switzerland, and they are also the nations with the smallest political economies and modest-sized welfare states under the control of their central government. The six highly centralized countries show a range in the size of their political economies and their welfare states. The two largest political economies—Belgium and the Netherlands—and the large Dutch welfare state are highly centralized, but New Zealand is highly centralized with a middling-sized political economy and welfare state.

Two other persistently different cross-national features are the extent to which a country’s economy is open internationally and the percentage of national populations age 65 and older. Economic openness is measured as imports plus exports as a percentage of a country’s GDP, collected from the IMF International Financial Statistics Yearbook, 2002. Over ninety-five percent of its variation is cross-national and only 1.4 percent is cross-temporal. Moreover, one can readily see the reason for its hypothesized role in the size of political economies. Belgium, Ireland, and the Netherlands have trade flows that on average amount to at least 99 percent of their total GDP, and they each have large political economies, with the Netherlands also having a large welfare state. France, Italy, and New Zealand each have average trade flows amounting to something in the neighborhood of 50 percent of their GDPs, and they have political economies smaller than those in the more open nations and welfare states between middling and large. The U.S. and Australia are least open and have small political economies.

The post-retirement age percentage is especially relevant for social security and welfare spending, as pensions comprise such a large portion of these expenditures. Over eighty-nine percent of its variation is cross-national, but unlike economic openness, it has appreciable cross-temporal variation (6.7%) almost all of which is coming from the common upward trend in the relative size of the group. This feature of national population age distributions is likely to create persistent differences among national

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9 In order to save degrees of freedom in the analyses that follow, I experimented with the seven categories to determine whether there are statistically meaningful cut-points consistent with linear effects that would allow us to treat expenditure centralization as a single variable. That analysis indicated three categories suffice and can be treated as having a linear effect—central government spending as a percentage of general government spending of less than 60% (coded -1), 60 to 90% (coded 0), and 90% and above (coded 1).
welfare state spending regimes and to produce incentives to change their spending patterns through time, making it a dynamically structural force.

Of special importance is the role of politics. In the interest of brevity and manageability in the space available, I sidestep some of the interesting internal political relationships and focus attention on two indicators. One is the Left-Right governing position signaled by median voters; the other is the welfare governing position of parties in government.¹⁰ I describe each, in turn, in the next several paragraphs.

Median voter positions for each national election are calculated in a manner similar to that developed by HeeMin Kim and Richard Fording (1998), with the slight adjustment made by McDonald, Mendes, and Budge (2004, 26). A country’s parties are arrayed from left to right according to the Comparative Manifesto Project (CMP) scores (Budge et al. 2001); voters are assumed to be evenly distributed in the ideological space around each party position; and the median voter position is calculated as that of the voter at the fiftieth percentile. Positions are annualized by recording the median voter score at either the time of the preceding election in a year with no election or in the year of an election when the election was held prior to July 1. Party vote percentages come from two sources: Andrea Volkens and colleagues (1992) and, after 1990, the European Journal of Political Science annual political updates.

Just over 60 percent of the total variation in median voter moving averages is cross-national. There is not much common time variation; the eighteen year-dummies account for 4.9 percent of total variation. The important message is easy to see; cross-national differences predominate.

Median voter positions communicate a general policy direction. They do not by themselves necessarily communicate information on specific policies, such as welfare. Specific policy decisions are taken by government (or through their agents, ministries, or

¹⁰ The interesting internal politics involve consideration of policy positions of other actors, such as parliaments and ministries. The results differ only marginally depending on which actor’s position is used. The fact of only marginal differences is to be expected since, cross-nationally, Left-Right positions of parliaments and median voters line up, Left-Right positions of governments and parliaments line up, and Left-Right positions of ministries and governments line up. Similarly, the welfare positions of governments and parliaments line up cross-nationally, as do the welfare positions of social affairs ministries and their governments (McDonald and Budge, 2005, 203-11).

At this time there is not enough evidence to say which, if any single one, of these actors is in control of policy, a result that is good news for democratic policymaking but not such good news for our ability to answer all the interesting questions. I use the median voter Left-Right positions and government welfare positions because, of the various possibilities, they produce the best of the marginally different fits.
by their principals, parliaments—see fn. 10). This has an important implication. While voter preferences could be important to setting the policy regime of the central government’s overall size, inasmuch as that is a policy matter directly associated with Left-Right, preferences on welfare itself, rather than on Left-Right, are likely to tell us more about the size of welfare expenditures. 11

Column 7 reports the average party-weighted pro-to-anti welfare position of governments—low scores mean pro-welfare support in order to be consistent with the direction of our Left-Right coding—with the weights assigned based on the relative parliamentary size of the parties participating in government. Data on party composition of governments are taken from Waldendorp et al. (2000). The $R^2$ values at the bottom of the table indicate that these aggregated preferences are somewhat weakly distinguishing nations from one another. Thirty-nine percent of the variation in government welfare scores is cross-national. Part of the reason for the lower percentage of variation associated with nations, relative to median voters Left-Right, is due to the post World War II agreement on the existence of the welfare state. No party has been decidedly anti-welfare state; the partisan differences are somewhere between lukewarm and strong support (Budge and McDonald 2006). Another part of the reason is that policy trajectories shift dramatically back and forth as party control alternates, as Aldrich described (see above), more so than median voter positions. There is not, however, much of a common trend among the nations. Some moved more pro-welfare, others less.

Cross-national Analysis of Means. Explanation of cross-national differences in spending patterns are necessary for any credible model of the policy process inasmuch as almost ninety percent of the observed variation is itself cross-national. If the model derived from the median mandate is credible, then its core structural elements have to account for different policy regimes in the sixteen/thirteen nations. This is tested by looking to see how well each nation’s average spending in the 1975-93 period is accounted for by their typical positions with respect to constitutional order (centralization), contextual circumstances (economic openness for total spending and post-retirement age population

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11 I entertained the possibility that government Left-Right as such could predict welfare spending. There is something to that possibility, but clearly the government positions specifically on welfare produce more predictability (i.e., better fits). I also entertained the possibility that total and welfare expenditures are influenced by parliamentary, governmental, and ministerial positions on economic policies as such (see the CMP economic scores constructed from market economy minus planned economy—Budge et al., 2001, 228, 233-44). I found no evidence in support of this possibility.
percentage for welfare), and political regimes (the MV Left-Right position for total spending and government welfare positions for welfare spending).

The results for total spending show

\[
T_{Si}^* = 26.2 + 9.63 C_{i}^* + .10 O_{i}^* - .32 MV_{i}^* + e_i
\]

\[
(2.82)\quad (1.83)\quad (.05)\quad (.15)
\]

\[R^2 = .849; \text{ SEE } = 4.19; N = 16.\]

where, here and hereafter, an asterisk indicates a mean value, \(T_{Si}\) is total central government spending in nation \(i\), \(C\) is the three category centralization indicator, \(O\) is openness of a nation's economy, \(MV\) is a nation's median voter's Left-Right position, and \(e\) summarizes a set of residual forces. For a nation with middling centralization, no economic openness (nonexistent), and a middle of the road \(MV\), the expected size of a political economy is 26.2 percent of GDP. All right-hand side variables are statistically significant at conventional levels (\(p < .05\) one-tail, coefficient standard errors in parentheses). Thus, moving from middling to low centralization is estimated to reduce a political economy's size by 9.63 percentage points (e.g., from Germany to Switzerland, all else equal) while moving to a high centralization increases size by 9.63 percentage points (e.g., from Germany to the Netherlands). A relatively open economy increases spending. Moving fifty points from low to middling openness (e.g., approximately the U.S. compared to Norway) increases size by five units, and moving 100 points from low to high openness (e.g., approximately the U.S. to Belgium) increases size by ten points. Finally, the Left-Right positions of political regimes matter, too. MV movement from a centrist position (zero) to a right-center position of ten reduces size by just over three units (e.g., approximately Canada's versus Australia's MV, other things equal); movement from the center to a left-center position increases spending by 3.2 units (e.g. approximately Canada versus the Netherlands); and an overall movement from right-center to left-center increases size by 6.4 units (e.g, similar to Australia to the Netherlands). Long-term constitutional, contextual, and political features of nations show themselves to be relevant to the size of national political economy regimes.

Much the same can be said when the size of a welfare state policy regime is the policy area in question. The welfare equation is

\[
W_{Si}^* = -3.01 + 3.80 C_{i}^* + .87 A_{i}^* - .39 GW_{i}^* + e_i
\]

\[
(4.26)\quad (1.22)\quad (.36)\quad (.20)
\]

\[R^2 = .761; \text{ SEE } = 2.47; N = 13.\]
where \( W_i \) is central government spending on welfare in nation \( i \), \( C \) is centralization, \( A \) is the post-retirement age population percentage, and \( GWelf \) is the government’s pro-to-anti-welfare position (high scores indicating less support for the welfare state). Centralization differences, from low to high, increase a central government’s welfare spending by over 7.5 points. Each one point increase (difference) in the relative size of the retirement-age population increases spending by .87, meaning that four to five percentage point differences between welfare spending in so-called settler nations of former British colonies and northern European nations can be accounted for by differences in their retirement-age population percentages. A government’s position on welfare matters, too. A ten point difference, between, say, the United States versus Germany or the United Kingdom versus Austria, leads to a 3.9 percentage point difference in the size of a central government’s welfare state.

With respect to the size of a central government’s overall political economy and its welfare state, the constitutional structure, structural aspects of it socio-economic makeup, and the type of long-term political regime all contribute to differences between and among nations. Structural differences in policy regimes are therefore understandable in relationship to identifiable structural features.

**Persistence of Explainable Regime Differences**

That electoral consequences can be seen in the long-run leaves one to wonder whether elections are, as the median mandate thesis proposes, capable of moving policy to and from their long-term positions year to year. This shorter-run ability to move policy is necessary for any description of democracy that takes seriously the notion of popular control of public policy. For, if electoral movements do not align with policy in the short-run but somehow get themselves aligned in the long run, and only in the long run, one has to take seriously the proposition that there is some sort of path dependency so that policy moves along a trajectory perhaps once influenced by politics but proceeding outside the boundaries of political control ever since. This, to be sure, is a prominent thesis in the welfare state literature. Political regimes were relevant to the organization of welfare states during their so-called “golden age” but have passed into irrelevance as globalization and other contextual forces have overtaken what political choice once wrought (see, Pierson (ed.) 2001; Swank 2002; or, if not overtaken, at least changed the nature of the role
of politics, Allan and Skruggs 2004; Huber and Stevens 2001, 336-37). More generally—i.e., without pointing to something special about globalization—Jonas Pontusson observes “[c]hanges in the causal dynamics of welfare state development represent a challenge that the welfare state literature has yet to tackle in any sustained way (Pontusson 2006: 325).

Part of the appeal of a globalization and related theses, the median mandate implies, could arise from two conceptual difficulties. The first comes from how party positions are measured. The second comes from not having taken full account of the slow pace of policy change in contrast to the rapid pace of political change.

Consider, first, how policy positioning is observed. Often the color of government, meaning its Left-Right leaning, is pre-categorized as the percentage of Left-party controlled seats in parliaments or governments (e.g., Cameron 1977; Blais et al 1993). Alternatively, expert party scores are used to create a weighted-average of the parliamentary or government Left-Right tendencies (e.g., Cusack 1997; Rueda and Pontusson 2000, Iverson 2006, 149). Either approach to measuring party positions leaves out the dynamics associated with parties changing their positions between elections. That alone may be important. A case in point is David Rueda’s demonstration that Social Democratic parties have been all but forced to pursue different policy objectives of their heterogeneous core constituencies by emphasizing different policy instruments at different times (Rueda 2005). In addition, Left-Right positions and welfare-specific policy positions are not so perfectly aligned as to ignore the possibility that differences between them are relevant (Budge and McDonald 2006).

Second, the slow pace of policy change is an obstacle to uncovering political effects because a change of government from Left control to Right control (or from more to less pro-welfare), or vice versa, cannot reasonably be expected to show itself immediately. Autoregressive equations with nation fixed effects show how strongly this holds. Estimating current spending, \( T_{it} \) and \( W_{it} \), in conjunction with a set of nation dummy variables shows,\(^\text{12}\) for total spending,

\[
T_{it} = a + .825 T_{it-1} + \sum b_i D_{it} + e_{it}
\]

\(^{(.024)}\)

\( R^2 = .975; \) \( \text{SEE} = 1.57; \) \( N = 326. \)

---

\(^{12}\) Data on total spending cover all sixteen nations, 1975-95. Data on welfare spending cover thirteen nations, 1975-95—excluding Belgium, Ireland, and Italy due to spotty data and the need for comparability with other analyses reported above and below.
And, for welfare spending,

\[ W_{it} = a + .835 W_{it-1} + \sum b_i D_{it} + e_{it} \]

\[ R^2 = .977; \text{SEE} = 0.70; N = 257. \]

Here \( T_{it} \) and \( T_{it-1} \) are the current and past year total spending as a percent of GDP, \( W_{it} \) and \( W_{it-1} \) are the current and past year welfare spending as a percent of GDP, and \( D_{it} \) are the dummy variables for nations. The dummies enter as nation specific equilibria for each one’s spending regime, and the speed of adjustment toward each equilibrium is given by one minus the autoregressive term’s coefficient. In the case of total spending, the speed of adjustment toward a nation-specific equilibrium position is \(.175 (1 - .825)\); in the case of welfare spending, it is \(.165 (1 - .835)\). This means, for both types of spending, about four years are needed to move halfway from a level of spending that presently stands away from equilibrium back to equilibrium \((.83^4 = .47)\). About 20 years are needed to move ninety-eight percent of the way back to equilibrium \((.83^{20} = .02)\).

There is, then, no doubt about the proposition that policy choices have momentum of their own, as the path dependency thesis says. Change takes place but today’s position is seldom easily overturned in a year or two. On the other hand, contrary to the strong version of the path dependency thesis, policy change can slowly cumulate in response to contextual forces so as to alter the status of a policy regime. This implies today’s politics, social make-up, or economic circumstances can change policy, but they can do so only slowly because today’s governing position and other circumstances are strongly influenced by the politics and circumstances of yesterday and the day before and the day before that and … .

The upshot of looking for political effects without taking account of potentially relevant measurement issues and the slow pace of policy change is to find only trace elements of evidence for political effects in year-by-year cross-national analysis (see, e.g., Blais, Blake, and Dion 1993; McDonald and Budge 154-68). For instance, in the study of government spending by Andre Blais and his colleagues a series of twenty-eight cross-sectional analyses, one per year from 1960 through 1987, shows Left-Right partisanship of governments has little predictive power for total government spending. In a subsequent analysis, aggregating their data in a pooled cross-national time series, a small partisan
effect appears, from which they conclude “governments of the left spend a little more than	hose of the right. Parties do make a difference, but a small one. The difference, ..., is
confined to majority governments and takes time to set in” (Blais, Blake, and Dion 1993,
57).

I undertake similar analyses. To address the measurement issue I use the CMP
data to measure the Left-Right position of MVs and the welfare position of governments.
To address the slow pace of policy issue I use a twenty-year moving average of the MV
and government positions. Conceptually, the moving averages are a nation’s governing
position in a specific year, defined in part by the policy preferences expressed in the most
recent election or most recently installed government and in part by the carryover politics
of today’s political regime as constructed from the politics of today and many yesterdays.
The results for the MV and government welfare effects are shown in tables 2 and 3,
respectively.

[Table 2 about here]
[Table 3 about here]

By way of contrast, consider first that Blais and his colleagues report statistically
significant effects of governments, at the p < .10 level, in only six of twenty-eight years.
Worse, in twelve years the estimated effects of the color of governments run in the
direction opposite to that hypothesized. In Table 2, looking at the size of political
economies, all estimated political effects after 1975 are in the proper direction. Also, in
fifteen of twenty-one years the MV effect is statistically significant, at least at the p < .10
level and more often beyond that. There is not a small and highly conditional effect of
politics on policy but a fairly robust and persistent one. Centralization is always
statistically significant. Economic openness shows its positive effect in the 1970s and
1980s but, surprisingly, loses its force in the 1990s.

The welfare analysis results are even stronger when it comes to predictability from
the slow changing political regimes. All estimated effects of government welfare
positions after 1976 are statistically significant, at least at the p < .10 level and in eighteen
of twenty-one years at the .05-level or beyond. Centralization retains its positive
influence across the years, as expected. The relative size of the post-retirement age
population appears to lose some of its predictability in the middle to late 1980s but otherwise stands the test of time.\(^\text{13}\)

Could all this predictability from political forces be the result of washing out dynamic variation in the within-nation political series by using the twenty year moving average, as if the measurements are repeatedly capturing the long-term, purely structural effects such as those in the analysis of means above? I pause here to provide a visual check on the MV moving average positions, in figures 4 and 5. The figures are divided between ten nations where median voters moved rightward across the decades, Figure 4, and six nations where they moved leftward, Figure 5. Focus, first, on the starting points in the early 1970s—meaning twenty year average median voter positions in the 1950s and 1960s. Median voters in Norway, Sweden, the UK, New Zealand, and Italy had been standing on the left (i.e., below -10) while Ireland’s and Switzerland’s stood to the right (above +10). Median voters in the other nine nations had average positions in the center-left, center, and center-right. Moving forward two decades, to the mid-1990s, only Norway and Sweden had 20 year average median voter positions on the left. The twenty-year moving averages show convergence to or through the center among the other 14 nations. Clearly recognizable and often quite sizable political dynamics are apparent in the slow-moving political regimes I have termed governing positions.

[Figure 4 about here]

[Figure 5 about here]

Politics and contextual forces combine to mark the tracks of policy regimes year to year. That is what the series of cross-sectional analyses say. The political effects are not those of dramatically shifting policies in response to dramatically shifting political changes. It takes time for politics to work its wills on the policy outputs of democratic systems. In due course, following a lengthy series of shifting preferences, it appears as if policy regime shifts will follow. Can all of this be put together in a fully specified cross-national, cross-temporal model of democratic policy making? That is the task of the next section.

\(^{13}\) Replacing the government twenty-year moving average with the welfare position of a current government shows statistically significant results in five years (\(p < .10\)), much reduced from the nineteen of twenty-one. Doing the same for the MV leads to twelve years with statistically significant political effects, compared to fifteen using the moving averages.
A Unified Cross-national, Cross-temporal Model of Democratic Policy Making

The structural effects of constitutional order, socio-economic circumstances, and politics reported above are present in the pooled data. In combination they record a set of nation-specific equilibria that can be estimated in autoregressive equations that include the mean values (indicated by an *) of the structural forces. For total spending it is

\[ T_{it} = 2.40 + .916 T_{it-1} + .762 C_{it}^* + .008 O_{it}^* - .042 MV_{it}^* + e_{it} \]

\[ R^2 = .972; \text{ SEE } = 1.63; N = 326. \]

And, for welfare spending it is,

\[ W_{it} = -.09 + .911 W_{it-1} + .305 C_{it}^* + .068 A_{it}^* - .048 GWelf_{it}^* + e_{it} \]

\[ R^2 = .976; \text{ SEE } = 0.70; N = 257. \]

The results are reasonably consistent with the analysis of means above but reveal a potentially important estimation problem. In substantive terms, each equation says that the equilibrium state of a policy regime, total or welfare spending, is set in reaction to each respective set of three forces. The regimes move in response to these forces, inasmuch as all right-hand side variables are statistically significant. The pace of the movement toward a changing equilibrium is recorded by one minus the autoregressive term’s coefficient (i.e., \( 1 - \beta \)), and the long-term effect of movements by the structural forces is calculated as the coefficient on a structural variable divided by one minus the autoregressive term’s coefficient (e.g., long-term effect of centralization is \( \beta / \left( 1 - \beta \right) \)). Performing the calculations for each variable shows roughly the same long-term effects as are evident in the means analysis. This is not done presently, however, because it is evident beforehand that something is missing from the equations.

The coefficient on the autoregressive term is larger than those reported in the fixed effects analysis. Moreover, in the case of total spending the intercept is statistically distinguishable from zero, which contradicts the premise that the equation records the equilibrium forces of each nation.\(^\text{14}\) In other words, it is clear the model is missing some sort of fixed effects. Excluding them is known to bias the autoregressive term upwards toward 1.0 (Perron 1989; Kiviet 1995), which is what we see here, and, probably, to bias effects of the substantive variables.

\(^{14}\) For a detailed discussion of the substantive interpretations of when an equilibrium model specified in this form has been identified see McDonald and Best (2006).
Fixed effects could be added, foursquare, by simply including \(n-1\) nation dummy variables. However, the cost in terms of estimation efficiency for doing so is almost assuredly too high (see Plümper and Troeger, n.d.). Instead, a page can be borrowed from Plümper and Troeger, and the missing fixed effects can be incorporated in a generally applicable equilibrium model by including each nation’s mean spending as a variable (Plümper and Troeger, n.d.). After doing so and rearranging the autoregressive term (\(T_{it-1}\) or \(W_{it-1}\)) so that it represents deviations from the respective mean value (TM or WM), the first step reveals

\[
T_{it} = 0.0 + 1.00 \text{TM}_{it} + .825 (T_{it-1} - \text{TM}_{it}) + e_{it}
\]

\[
R^2 = .975; \text{SEE} = 1.57; N = 326.
\]

And, for welfare spending,

\[
W_{it} = 0.0 + 1.00 \text{WM}_{it} + .835 (W_{it-1} - \text{WM}_{it}) + e_{it}
\]

\[
R^2 = .977; \text{SEE} = 0.70; N = 257.
\]

The results simply reproduce, with respect to the speed of adjustment and overall fit, the results of the fixed effects analysis above. The coefficient on the mean values equal 1.0 because these are estimated to be the equilibria toward which deviations are returning. The intercepts are zero because once the equilibria have been taken into account there is nothing left out (at least with respect to fixed effects).

The small price paid for using this formulation is to partial out the structural effects of the substantive variables because they are equilibrium forces and the overall equilibrium has now been captured by the nation means term. Thus, for total spending all structural effects are reduced to statistical insignificance.

\[
T_{it} = .07 + 1.02 \text{TM}_{it} + .83 (T_{it-1} - \text{TM}_{it}) - .17 C_{it} + .01 O_{it} + .01 MV_{it} + e_{it}
\]

\[
R^2 = .972; \text{SEE} = 1.63; N = 326.
\]

And so it is for welfare spending.

\[
W_{it} = -.15 + .97 \text{WM}_{it} + .84 (W_{it-1} - \text{WM}_{it}) + .08 C_{it} + .04 A_{it} + .02 GWelf_{it} + e_{it}
\]

\[
R^2 = .977; \text{SEE} = 0.70; N = 257.
\]

To say the price is small is merely to say that we already have reasonable estimations of the long-term effects of these structural variables from the analysis of
means. The central issue now, given those already established long-term effects, is whether and how the structural dynamics of socio-economic and political forces produce short-run effects that cumulate so as to create long-term differences. To investigate the structural dynamics (i.e., not including centralization which in this time frame is essentially a structural force only) the year-by-year variables are added to the baseline equilibrium equations.

The results for total spending show

\[
T_{it} = .43 + 1.018 TM_i + .841 (T_{it-1} - TM_i) - .012 O_{it} - .015 MV_{it} + e_{it}
\]

\[
(37) \quad (0.013) \quad (0.024) \quad (0.004) \quad (0.009)
\]

\[R^2 = .975; \text{SEE} = 1.55; N = 326.\]

And for welfare spending they are

\[
W_{it} = -.36 + .983 WM_i + .826 (W_{it-1} - WM_i) + .047 A_{it} - .017 GWelf_{it} + e_{it}
\]

\[
(26) \quad (0.018) \quad (0.028) \quad (0.024) \quad (0.007)
\]

\[R^2 = .978; \text{SEE} = 0.69; N = 257.\]

All four structural dynamics have statistically significant short-run effects. Moreover, the equilibrium indicator in each equation functions as it should—the coefficient is statistically indistinguishable from 1.0 and intercepts are statistically indistinguishable from zero. Third, the speeds of adjustment are approximately what are to be expected from the results of all the preceding analyses. The one especially surprising result is that economic openness has a significant negative short-run effect. Assuming this is true, an assumption reinforced by the missing effect during the 1990s reported in the series of cross-sections (Table 2), it suggests that while welfare states in very wide open economies may have once been organized to protect labor markets and dependent populations from adverse effects of global economic forces such is not the program followed by other nations as their economies open themselves.

The other seemingly surprising results are that the long-run effects of the post-retirement age variable and the two political variables look too small in comparison to the differences they create in the long run. This is only seemingly so however, because in order to appreciate their long-run effects one needs to take into account that when these dynamic structural forces move persistently in one direction, the movements also carry along with them the effect of changing the mean values, effects incorporated in the variable standing in as an equilibrium force. When both sources of influence are
accounted for, the long-run effects of the age variable and both political variables are much the same as those of the coefficients reported in the analysis of means.

In sum, short-term structural dynamics have discernable effects. These include, importantly for our purpose of investigating how popular control of policy is realized, the political dynamics of elections and of parties in government.

**Conclusion**

Popular control over public policy is a plausible description of contemporary democracies, operating as they do through a median mandate conception of democratic representation and policymaking. That is the main theoretical and empirical generalization to be taken from the arguments, evidence, and analyses presented here.

The important theoretical revelation is the discovery that accurate representation can be achieved without too terribly much effort on the part of electorates and without requiring political parties to operate in persistently omniscient and strategic ways. Three modest conditions can do much of the work: (1) divergent and dynamic party policy position taking that bracket the position of the median voter, (2) elections that produce alternating partisan control of government, and (3) a pace of policy change that proceeds slowly.

The important empirical revelation starts by recognizing the three conditions appear to be in place in Western democracies. Given their existence, the results of the policy analyses show that national policies with respect to both the size of a central governments’ political economy and the size of its welfare state become aligned with the partisan choices of median voters in the long run by responding slowly to partisan choices in the short run.
References


Table 1: Descriptive Statistics on Central Government Total and Welfare Spending, along with Institutional, Political, and Economic Features: 16 Democracies 1975-93

<table>
<thead>
<tr>
<th>Country</th>
<th>Govt% GDP</th>
<th>Wel% GDP</th>
<th>Govt Central</th>
<th>Open Econ</th>
<th>% over Age 65</th>
<th>L-R Mdn Voter</th>
<th>Govt Pro-Anti-Welf</th>
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</thead>
<tbody>
<tr>
<td>Australia</td>
<td>24.8</td>
<td>7.1</td>
<td>0</td>
<td>32.8</td>
<td>10.1</td>
<td>11.5</td>
<td>-10.0</td>
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<td>0</td>
<td>72.4</td>
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<td>-8.4</td>
<td>-14.1</td>
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<td>1</td>
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<td>14.4</td>
<td>-1.1</td>
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<td>42.1</td>
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<td>-10.1</td>
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<td>~~~</td>
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<td>110.2</td>
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<td>-14.5</td>
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<td>~~~</td>
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<td>41.7</td>
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<td>-4.7</td>
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<td>18.9</td>
<td>1</td>
<td>98.2</td>
<td>12.0</td>
<td>-12.6</td>
<td>-10.0</td>
</tr>
<tr>
<td>New Zealand</td>
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<td>12.0</td>
<td>1</td>
<td>57.9</td>
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<td>-3.9</td>
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<td>12.6</td>
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<td>19.3</td>
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<td>60.9</td>
<td>17.0</td>
<td>-13.3</td>
<td>-19.4</td>
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<td>Switzerland</td>
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<td>10.1</td>
<td>-0.6</td>
<td>66.8</td>
<td>13.9</td>
<td>-0.2</td>
<td>-9.8</td>
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<td>United Kingdom</td>
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<td>11.4</td>
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<td>15.1</td>
<td>0.3</td>
<td>-5.5</td>
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<td>United States</td>
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<td>0</td>
<td>18.6</td>
<td>11.6</td>
<td>8.1</td>
<td>-2.4</td>
</tr>
</tbody>
</table>

| Mean          | 36.6      | 13.2     | 0.3          | 64.1      | 13.3          | -3.6          | -10.2             |
| Std dev       | 9.9       | 4.4      | 0.6          | 27.8      | 2.2           | 10.3          | 6.6               |

% of variance associated with

| Nation-to-nation | 89.3 | 89.7 | 96.2 | 95.4 | 89.5 | 60.1 | 39.0 |
| Year-to-year     | 4.5  | 5.0  | 0.2  | 1.4  | 6.7  | 4.9  | 9.4  |
| Trend            | 2.7  | 4.1  | 0.2  | 0.3  | 6.5  | 1.7  | 0.1  |
Table 2: Slope Estimates Using Twenty-Year Moving Average Left-Right Positions of Median Voters to Predict Total Spending by Central Governments, Controlling for Revenue Centralization and Economic Openness, Successive Cross Sections 1975-95

Table: Y = Central Government Total Spending as Percent of GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>Centralization</th>
<th>Open Econ</th>
<th>Median Voter (20-year MA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>8.4*** (1.6)</td>
<td>.211*** (.048)</td>
<td>.020 (.092)</td>
</tr>
<tr>
<td>1976</td>
<td>6.8*** (1.5)</td>
<td>.208*** (.043)</td>
<td>-.069 (.089)</td>
</tr>
<tr>
<td>1977</td>
<td>7.2*** (1.3)</td>
<td>.177*** (.035)</td>
<td>-.172** (.078)</td>
</tr>
<tr>
<td>1978</td>
<td>7.6*** (1.2)</td>
<td>.202*** (.034)</td>
<td>-.246*** (.076)</td>
</tr>
<tr>
<td>1979</td>
<td>8.1*** (1.4)</td>
<td>.194*** (.035)</td>
<td>-.255*** (.090)</td>
</tr>
<tr>
<td>1980</td>
<td>9.2*** (1.6)</td>
<td>.176*** (.040)</td>
<td>-.189* (.108)</td>
</tr>
<tr>
<td>1981</td>
<td>9.6*** (1.9)</td>
<td>.179*** (.045)</td>
<td>-.230* (.130)</td>
</tr>
<tr>
<td>1982</td>
<td>9.7*** (2.0)</td>
<td>.183*** (.045)</td>
<td>-.154 (.138)</td>
</tr>
<tr>
<td>1983</td>
<td>10.0*** (1.9)</td>
<td>.169*** (.043)</td>
<td>-.169 (.141)</td>
</tr>
<tr>
<td>1984</td>
<td>10.0*** (2.0)</td>
<td>.143*** (.042)</td>
<td>-.185 (.147)</td>
</tr>
<tr>
<td>1985</td>
<td>9.2*** (2.2)</td>
<td>.148*** (.041)</td>
<td>-.139 (.145)</td>
</tr>
<tr>
<td>1986</td>
<td>10.7*** (1.9)</td>
<td>.134*** (.041)</td>
<td>-.238** (.132)</td>
</tr>
<tr>
<td>1987</td>
<td>11.7*** (1.7)</td>
<td>.122*** (.038)</td>
<td>-.320** (.119)</td>
</tr>
<tr>
<td>1988</td>
<td>10.0*** (1.5)</td>
<td>.107*** (.030)</td>
<td>-.410*** (.101)</td>
</tr>
<tr>
<td>1989</td>
<td>9.6*** (2.0)</td>
<td>.064* (.038)</td>
<td>-.494*** (.128)</td>
</tr>
<tr>
<td>1990</td>
<td>8.4*** (1.9)</td>
<td>.054* (.040)</td>
<td>-.498*** (.135)</td>
</tr>
<tr>
<td>1991</td>
<td>8.4*** (2.3)</td>
<td>.037 (.048)</td>
<td>-.553*** (.163)</td>
</tr>
<tr>
<td>1992</td>
<td>8.1*** (2.8)</td>
<td>.025 (.060)</td>
<td>-.595*** (.199)</td>
</tr>
<tr>
<td>1993</td>
<td>7.9** (3.3)</td>
<td>.021 (.072)</td>
<td>-.642** (.241)</td>
</tr>
<tr>
<td>1994</td>
<td>7.8** (3.0)</td>
<td>.023 (.063)</td>
<td>-.573** (.224)</td>
</tr>
<tr>
<td>1995</td>
<td>5.6* (3.4)</td>
<td>.040 (.066)</td>
<td>-.551** (.241)</td>
</tr>
</tbody>
</table>

*p < .10  **p < .05  ***p < .01

Sixteen nations: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Ireland, Italy, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, and United States.

Missing values on central government total spending include: Italy 1995, New Zealand 1989, and Switzerland 1985-90.
Table 3: Slope Estimates Using Twenty-Year Moving Average Government Welfare Positions to Predict Welfare Spending by Central Governments, Controlling for Revenue Centralization and Percent Population 65 and Older, Successive Cross Sections 1975-95

<table>
<thead>
<tr>
<th>Year</th>
<th>Centralization</th>
<th>% 65 &amp; Older</th>
<th>Govt Welfare (20-year MA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>2.7** (1.4)</td>
<td>.837** (.395)</td>
<td>-.130 (.147)</td>
</tr>
<tr>
<td>1976</td>
<td>2.7** (1.2)</td>
<td>.776** (.351)</td>
<td>-.174 (.129)</td>
</tr>
<tr>
<td>1977</td>
<td>3.0** (1.0)</td>
<td>.657** (.289)</td>
<td>-.257** (.107)</td>
</tr>
<tr>
<td>1978</td>
<td>3.3*** (0.9)</td>
<td>.727** (.288)</td>
<td>-.317** (.106)</td>
</tr>
<tr>
<td>1979</td>
<td>3.7*** (0.9)</td>
<td>.721** (.294)</td>
<td>-.352** (.110)</td>
</tr>
<tr>
<td>1980</td>
<td>4.0*** (0.9)</td>
<td>.701** (.272)</td>
<td>-.347*** (.105)</td>
</tr>
<tr>
<td>1981</td>
<td>4.3*** (1.0)</td>
<td>.759** (.322)</td>
<td>-.366** (.127)</td>
</tr>
<tr>
<td>1982</td>
<td>4.4*** (1.1)</td>
<td>.611* (.368)</td>
<td>-.394*** (.151)</td>
</tr>
<tr>
<td>1983</td>
<td>4.4*** (1.1)</td>
<td>.477* (.404)</td>
<td>-.420*** (.176)</td>
</tr>
<tr>
<td>1984</td>
<td>3.8*** (1.1)</td>
<td>.385* (.384)</td>
<td>-.490*** (.176)</td>
</tr>
<tr>
<td>1985</td>
<td>4.0** (1.2)</td>
<td>.428* (.384)</td>
<td>-.493*** (.182)</td>
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<tr>
<td>1986</td>
<td>4.4** (1.4)</td>
<td>.598* (.444)</td>
<td>-.442** (.210)</td>
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<tr>
<td>1987</td>
<td>4.6*** (1.4)</td>
<td>.509* (.436)</td>
<td>-.500** (.206)</td>
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<tr>
<td>1988</td>
<td>4.7*** (1.2)</td>
<td>.613* (.377)</td>
<td>-.534*** (.180)</td>
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<tr>
<td>1989</td>
<td>5.2*** (1.3)</td>
<td>.483* (.430)</td>
<td>-.606*** (.183)</td>
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<tr>
<td>1990</td>
<td>4.3** (1.5)</td>
<td>.420* (.485)</td>
<td>-.619*** (.199)</td>
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<tr>
<td>1991</td>
<td>3.6** (1.4)</td>
<td>.760* (.432)</td>
<td>-.493** (.186)</td>
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<tr>
<td>1992</td>
<td>3.2** (1.3)</td>
<td>1.059** (.407)</td>
<td>-.475** (.180)</td>
</tr>
<tr>
<td>1993</td>
<td>2.6** (1.3)</td>
<td>1.271** (.407)</td>
<td>-.499** (.185)</td>
</tr>
<tr>
<td>1994</td>
<td>2.6* (1.6)</td>
<td>1.324** (.469)</td>
<td>-.415** (.218)</td>
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<tr>
<td>1995</td>
<td>2.5* (1.6)</td>
<td>1.520** (.497)</td>
<td>-.404* (.233)</td>
</tr>
</tbody>
</table>

*p < .10  **p < .05  ***p < .01

Thirteen nations: Australia, Austria, Canada, Denmark, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom, and United States.

Figure 1: Representational Qualities in Two-party Systems: Given Parties Presenting Varied Positions, a MV between the Left-Right Major Parties, and Random Selection of Plurality Party

Plurality Party L-R = .55 + .82 Median Voter L-R

\(R^2 = .21; \text{ SEE} = 16.5\)

Three qualities of interest:

- **Responsiveness**—the general relationship between the plurality party’s Left-Right governing position and the Left-Right position of the median voter, indicated by the slope.
- **Bias**—the tendency of the plurality parties’ governing positions to be persistently to the Left or Right of the median voter positions, indicated by the intercept.
- **Distortion**—the average magnitude of incongruence (difference) between the plurality party Left-Right governing position and the Left-Right position of the median voter, indicated here, roughly, by the standard error of estimate (SEE) but actually calculated as the average absolute difference between the two positions.
Figure 2: Representational Qualities in Three-party Systems: Given Parties Presenting Varied Positions, a MV between the Left-Right Major Parties, and Essentially Random Selection of Governing Positions

Plurality Party L-R_i = -.42 + .47 Median Voter L-R

\(R^2 = .17; \text{SEE} = 10.9\)

Three qualities of interest:

- **Responsiveness**—the general relationship between the Left-Right governing position and the Left-Right position of the median voter, indicated by the slope.
- **Bias**—the tendency of the governing positions to be persistently to the Left or Right of the median voter positions, indicated by the intercept.
- **Distortion**—the average magnitude of incongruence (difference) between the Left-Right governing position and the Left-Right position of the median voter, indicated here, roughly, by the standard error of estimate (SEE) but actually calculated as the average absolute difference between the two positions.
Figure 3: Time Sequence Development of the Relationships among Median Voter, Winning Party, and Slow-paced Governing Left-Right Positions
Figure 4: Moving Averages of the Median Voter for Countries Moving Rightward
Figure 5: Moving Averages of the Median Voter for Countries Moving Leftward