

Democratic Inequality and the Calculus of Economic Voting DRAFT

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Abstract

Bartels (2008) in his recent book, *Unequal Democracy*, speculates that "...a great deal of economic inequality in contemporary America is a curious byproduct of peculiarities in voting behavior utterly unrelated to voters' taste or tolerance for inequality" (p. 125). The conclusion is based on the analysis of ANES election data. He demonstrates that voters, in particular low-income voters, focus very myopically - and in an entirely non-self interested fashion - on short-term economic outcomes; moreover on short-term outcomes that favor the most affluent in American society. Bartels argues that because of this myopia the less-well off segments of the American electorate have discounted economic improvements that have objectively benefited them and have favored very short-term economic improvements. The result is that they reward incumbents who on balance have generated economic outcomes that have hurt them. This behavior has led to the electoral success of Republican presidential candidates that have implemented policies that have significantly increased economic inequality in America. This in fact may have implications for electoral contexts in addition to the U.S. As Duch and Stevenson (2008) have recently established for 20 countries - and as Bartels points out for the U.S. context - the economic vote is large and pervasive throughout developed democracies. If the Bartels result regarding the economic vote is correct and if it generalizes to most other democratic contexts, it suggests a fascinating unintended consequence of electoral democracy.

1 Introduction

Bartels (2008) in his recent book, *Unequal Democracy*, speculates that "...a great deal of economic inequality in contemporary America is a curious byproduct of peculiarities in voting behavior utterly unrelated to voters' taste or tolerance for inequality" (p. 125). The conclusion is based on the analysis of ANES election data. He demonstrates that voters, in particular low-income voters, focus very myopically - and in an entirely non-self interested fashion - on short-term economic outcomes; moreover on short-term outcomes

that favor the most affluent in American society. Bartels argues that because of this myopia the less-well off segments of the American electorate have discounted economic improvements that have objectively benefited them and have favored very short-term economic improvements. The result is that they reward incumbents who on balance have generated economic outcomes that have hurt them. This behavior has led to the electoral success of Republican presidential candidates that have implemented policies that have significantly increased economic inequality in America. This in fact may have implications for electoral contexts in addition to the U.S. As Duch and Stevenson (2008) have recently established for 20 countries - and as Bartels points out for the U.S. context - the economic vote is large and pervasive throughout developed democracies. If the Bartels result regarding the economic vote is correct and if it generalizes to most other democratic contexts, it suggests a fascinating unintended consequence of electoral democracy.

This then raises the following question: Which economic factors, if any, play a role in voters' decisions? Do voters evaluate politicians regarding how well they have done in the past, or how they expect them to perform in the future? Do they care about the economic conditions of their nation as a whole, or just their own pocket book? In short, what's the calculus of economic voting?

These are contested questions, and the literature is full of competing answers. The target and time dimension of economic evaluation have generated particularly voluminous bodies of literatures (Lewis-Beck and Stegmaier, 2000)(191). The debate of sociotropic vs. egocentric (or pocketbook) economic voting deals with the question whether it is the entire country or just one owns well-being that is the target of evaluation. The debate of retrospective vs. prospective voting (MacKuen and Stimson (1992) describe this issue with their 'peasants vs. bankers' metaphor) is concerned with the question whether voters care about the past or the future when evaluating economic developments. The time- and target-dimension can and have been arranged in a two-by-two table, yielding four different "calculi of economic voting" (see Table 1): egotropic prospective (I), egotropic retrospective (II), sociotropic prospective (III), and sociotropic retrospective

(IV) economic voting.

Table 1: Different Types of Economic Voting

Time Horizon	Egotropic	Sociotropic
Prospective	<i>I</i>	<i>II</i>
Retrospective	<i>III</i>	<i>IV</i>

While we have a very good idea under which conditions economic voting is more likely to occur in a given election (Duch and Stevenson, 2008), we know comparatively little about which calculus of economic voting is prevalent. And this despite a very large body of literature dealing with any possible combination of the cells in Table 1 (for reviews, see (Lewis-Beck and Stegmaier, 2000)). Shortly put, there is little consensus. For example, regarding the time dimension, (Norpoth, 1996) finds that only retrospective voting matters, while (Erikson and Stimson, 2000) find that only the prospective calculus matters. (Clarke and Stewart, 1994), in contrast, take a middle position. Similarly opposing results have been established regarding the target dimension.

We find this mixed picture hardly surprising. It results from the tendency of many scholars to theoretically favor one calculus over another - something that makes little sense, as we argue in the next section. The inconclusive findings also arise because most studies either focus on a single election, or - at best - several election within a single country.¹ Rather than asking whether the economic vote consists of a particular calculus, this paper explores which voters are more likely to use one calculus rather than another, and under which conditions which calculus of economic voting is prevalent.

Which calculus of economic voting is used can have substantive political consequences, including serious consequence for redistributive policies. (Markus, 1988) (139) constructs the following illustrative example: A regressive "[p]olicy A would raise the incomes of the richest 10 percent of the population by \$10,000 per capita and lower the income of the bottom 90 percent by \$1,000 each, for a net increase of $.10(\$10,000) +$

¹There are some notable exceptions here. For example (Gomez and Wilson, 2006)

$.90(-\$1,000) = +100$ per capita. [A progressive policy B] would decrease the income of the top 10 percent by \$1,000 each and raise the income of the remaining 90 percent by \$100 each, for a net [decrease] of $.10(-\$1,000) + .90(\$100) = -\$10$ per capita". If all voters would apply the egotropic retrospective calculus, an incumbent would be voted out of office if s/he implements policy A, which is highly regressive. In contrast, an incumbent would be reelected despite the highly regressive policy A if voters apply a retrospective sociotropic calculus.

This is, of course, a constructed an unrealistic example. However, it shows how calculi of voting can be relevant for redistributinal outcomes. Bartels (2008) relies on another, more sophisticated connection between types of economic voting and redistributinal outcomes. To simplify a lot, he suggests that low income voters apply the sociotropic calculus, while rich voters care about their own pockets. In a sense, he suggests that Republican presidents get widespread support of low-income voters despite implementing policy A because low-income voters vote sociotropically. But how robust is this pattern? Can different calculi of voting help in explaining different redistributinal outcomes?

The next section discusses our theoretical framework and outlines our conjectures regarding the individual- and macro-level determinants of the four types of economic voting. Section three explains our empirical strategy and presents the findings. The final section concludes.

2 Theory

All four calculi of economic voting are perfectly compatible with a rational choice approach. Whether a voter should have the whole economy or just herself as the target of economic evaluation, and whether she prefers to evaluate past or predict future performance aren't questions that can be answered a priori. It all depends - on a voter's utility function, on the available information, on the institutional setting, and other factors. We are interested in precisely how this economic vote is exercised because we believe this has

important implications for our understanding of the extent to which government policies produce more, or less, income inequality in a country.

Hence, one issue is simply which type of economic vote prevails in democratic contexts. It may be the case that Bartels (2008) observations about the economic vote are in fact unique to the U.S. case (or possibly to the sample of elections he analyzes in the U.S. case). Or, it may be the case that economic voting in most countries is dominated by this sociotropic orientation. And if Bartels reasoning is correct, this feature of democratic accountability might contribute to inequality in all democratic contexts. Accordingly, one of our interests here is simply to rank-order the four calculi according to their degree of "egocentrism" (egotropic is more selfish than sociotropic) as well as their degree of "sophistication" (prospective voting is more sophisticated than retrospective voting).

The overall rank-ordering of economic voting calculi in democratic contexts will provide insight into whether the economic vote in general contributes to income inequality. One possible outcome here is that the economic vote promotes an egalitarian reflex on the part of elected representatives. This, we would argue, presumes an economic voter who is egoistic and sophisticated and this suggests a rank-ordering of the four calculi as: Egotropic prospective voting (I) > Egotropic retrospective economic vote (II) > Sociotropic prospective economic vote (III) > Sociotropic retrospective economic vote (IV).

Alternatively, the economic vote may, in line with Bartels (2008), contribute exaggerate inequality by rewarding they types of myopic economic growth that we described earlier. This, we would argue, presumes an economic voter who is sociotropic and retrospective and this suggests a rank-ordering of the four calculi as: Sociotropic retrospective economic vote (IV) > Sociotropic prospective economic vote (III) > Egotropic retrospective economic vote > (II)Egotropic prospective voting (I).

We are also interested in understanding what explains variations in the types of economic voting calculi employed by voters. We expect that there are both micro- and macro- determinants of the priority that voters give to each of these four different types of economic voting. The micro-foundations of these economic calculi concern differen-

tiating they types of voters that favour one type over another. We also believe that these decisions to favour one type over another is conditioned by context, such as the institutional features of the political system. This paper primarily (and preliminarily) establishes the empirical patterns regarding the different calculi of economic voting, but we also want to formulate some hypotheses - for the micro- as well as the macro-level.

We begin by exploring the micro-level determinants. We expect the degree of narrowly self-interested, sophisticated economic voting to be a function of:

1. Salience: the more heavily an individual relies on market income, the more s/he will rely on egocentric evaluations
2. Information: the more informed a person, the more s/he will rely on sophisticated (i.e. prospective) voting
3. Ideology: voters with individualistic (as opposed to egalitarian) ideology will rely more heavily on egocentric evaluations

Table 2 identifies specific empirical hypotheses associated with each of these three ways to characterize the self-interested and sophisticated nature of the economic vote. Following Bartels (2008), we hypothesize that income will be positively correlated with the likelihood of a self-interested and sociotropic economic vote calculus (see also Iversen and Soskice (2008)). Education is also expected to contribute to the sophistication of the economic vote calculus. Hence wealthier and educated voters are expected to better informed voters, particularly about their market income, and therefore exercise a more self-interested and sophisticated economic vote. Also, for rich people more is at stake.

Table 2: Micro-Level Hypotheses for Sophisticated/Egocentric Voting

Variable	Predicted Relationship
Information	
Income	<i>Positive</i>
Education	<i>Positive</i>
Salience	
Age	<i>Negative</i>
Non-employment	<i>Negative</i>
Unemployment	<i>Positive</i>
Public Employment	<i>Negative</i>
Ideology	
Left-Right Self Placement	<i>Positive</i>
Female	<i>Negative</i>
Union Membership	<i>Negative</i>
Religion	<i>Negative</i>

With respect to salience, Table 2 suggests the following empirical hypotheses: The income of older people depends increasingly less on the market (exception: private pensions invested in stock markets) and hence they should have a less sophisticated/self-interested economic vote. Those out of the job market have little reliance on market income and hence will have a less sophisticated economic vote. On the other hand unemployment is a cyclical phenomenon which makes the unemployment very reliant on market outcomes which should create an incentive for a sophisticated/self-interested economic vote. Finally employees in the public sector have jobs that are much less affected by the economy and hence will have a less sophisticated/self-interested economic vote.

We have organized a group of variables under the rubric "ideology". Our intuition here is that these individual-level characteristics will lead individuals to have more individualistic orientations and hence more likely to exercise a sophisticated/self-interested economic vote. The specific empirical hypotheses that result from this are that individuals on the left, women, union members and the more religious are expected to have less individualistic orientations and hence are expected to have a less sophisticated/self-interested economic vote.

(Duch and Stevenson, 2008) have argued that context plays an important role in conditioning how voters weigh the importance of the economy in their vote function. Our expectation is that similar contextual factors will condition the relative importance that voters give to the four different types of an economic vote. These contextual arguments presume that there are features of the institutional or economic context that motivate voters to favor one type of economic vote over another because this in effects systematically enhances their expected vote utility. We are in the early stages of developing a more formal statement of these contextual effects. Nevertheless we currently have a number of intuitions as to what these contextual might be.

We argue that voters are more likely to favor a sociotropic economic vote in contexts in which there is high, as opposed to low, levels of participation in the labour market. The costs to the typical voter of ignoring personal (i.e., self-interested) are much higher

in a context with low levels of participation in the labour market because the economic circumstances of the voter are much more tenuous. In contexts where there are high levels of labour market participation voters have the luxury of focusing on the broader national measures of economic performance and hence are more likely to exercise a sociotropic economic vote.²

The nature of electoral rules represents a second contextual factor that shapes the weight voters give to these four different economic votes. (Persson and Tabellini, 2000) (Ch. 8) suggest that majoritarian electoral systems induce politicians to focus on narrow parts of the electorate (swing voters), which should lead to overall less redistribution but more targeted policies. This may suggest that "what have you done for me lately" is more important in majoritarian systems, leading to more egotropic voting.

A final contextual consideration is voter turnout. High voter turnout should increase the saliency of narrower self-interested economic issues for the average voter. The assumption here is that in high turnout elections, there is heightened debate regarding economic performance and this tends to trigger an egocentric response on the part of voters because it highlights the extent to which their self-interested economic situation is associated with government policy.

3 Data and Evidence

3.1 Estimating an Economic Vote

Our empirical point of departure is the estimation of an economic voting model for each of approximately 87 surveys from mostly developed western democracies over the period 1980-2005. Our principal concern is to estimate the importance of each of our four different economic evaluation variables such that their relative importance is comparable across the different populations. More concretely, we will consider these relative magni-

²On this notion of voters exercising a "luxury good" vote under periods of good economic performance see (Stevenson, 2001).

tudes comparable if the variation in the magnitudes across different populations reflects real differences in the importance of different economic evaluations in these populations rather than simply differences in our measurement techniques.

This measurement task is complicated because the theoretical quantity we want to measure (the relative importance of different economic evaluations in the vote choice decision) is a causal effect (i.e., it is the impact of one variable on another) and so cannot be observed directly. Instead, the effect must be estimated from the data on the variables that make up the relationship (vote choice and different economic perceptions). Fortunately, each of our surveys is based on a large sample from the relevant population, so we can use statistical models to produce the necessary estimates. And here we adopt the estimation strategy of Duch and Stevenson (2005). This involves producing estimates of the relative importance of the four types of economic evaluations that reflect their true value in the population. In this study we produce our estimates of the strength of economic voting in each of the 87 sampled populations from carefully specified statistical models of individual voting behavior. In specifying the components of these models, we have been guided by the vast literature on voting behavior in general, the country-specific literatures on voting, and a growing body of work concerned with the particular statistical problems associated with estimating vote choice models. The estimates obtained from these models (one for each voter preference study in the sample) are the numbers that we use to characterize the strength of economic voting in each population. Throughout the process of producing these estimates, our most important concern has been that the estimates themselves be comparable across populations. This required first and foremost that we attempt to estimate the same theoretical quantity in each population.

The first step in this effort is obtaining comparable estimates from different surveys is to identify those surveys that ask respondents about their vote choice and their perceptions of the economy. Ideally, these questions would be asked in exactly the same way in each survey, but unfortunately this is not the case. Accordingly, following Duch and Stevenson (2008) voter preference studies were included in this analysis if they asked the

voter about a vote in a single election. We included surveys that were both pre- and post-election surveys; and we included surveys that were not asked during an election cycle but asked respondents to indicate who they would vote for if an election were held.³

Our goal is to estimate vote choice models with four different economic evaluation questions. In each of the 87 surveys used in the analyses respondents were asked all four questions that had the following general form:

1. "Looking back over the last year, would you say that the economic situation in [name of country] has gotten much better, somewhat better, stayed the same, somewhat worse, or much worse."
2. "Looking back over the last year, would you say that the economic situation in [name of country] has gotten much better, somewhat better, stayed the same, somewhat worse, or much worse."
3. "Looking back over the last year, would you say that the economic situation in [name of country] has gotten much better, somewhat better, stayed the same, somewhat worse, or much worse."
4. "Looking back over the last year, would you say that the economic situation in [name of country] has gotten much better, somewhat better, stayed the same, somewhat worse, or much worse."

The key elements of all of these questions is that they refer to change in the economy rather than absolute levels of the economy (i.e., the economy is good or strong). In addition, one of the questions had to be retrospective and refer to the national economy; one had to be retrospective and refer to the respondent's personal financial situation; one had to be prospective and refer to the national economy; and one had to be prospective and refer to the respondent's personal financial situation. For a survey to be included in our study, we required that all four economic evaluation questions, with these elements,

³Details on the vote choice question are discussed in Duch and Stevenson (2008)

be present in the survey instrument. However, other less fundamental deviations, like whether the retrospective evaluation was over a year or two years and the number of response categories were tolerated. We do not expect these deviations to be consequential but, as with the vote choice question, we can investigate this expectation empirically.

As mentioned in the introduction to this section, we achieve consistent estimates of the impact of economic perceptions on vote choice including variables that are known to be important in voting in the particular country and time. We identify those variables from the literature on comparative voting behavior and on the country specific literatures on voting in each country. In general, four theoretical traditions provide the foundations for most empirical models of voting Alt and Chrystal (1983): the sociological tradition identifies class, urban/rural residence, religion, region, language, and race as potentially important predictors of vote choice. The influence of the Michigan school points to the importance of the direction and strength of partisanship as explanations for vote choice. Expected utility theorists emphasize the importance to the vote decision of the distance between voter issue preferences and those of contending parties (left-right scale in particular). Finally, a newer tradition has suggested that the rise of post-materialist values, green parties, and the environmental movement has introduced new cleavages into society that have activated gender, age, and education as significant predictors of the vote. It is important to understand that nothing requires that the "control variables" included in the specification of the individual vote models be measured in exactly the same way from study to study or even that the same concepts be controlled for.

Once we have decided on the variables to be included in the model for each individual survey, we estimate a logistic regression model of vote choice for the incumbent Prime Ministerial party. Equation 1 states the general form of the economic vote equation that we estimate for each voter preference survey.

$$\text{logit}(\nu_{ik}) = \frac{e^{\hat{\beta}_{1k}(X_{i1k}) + \hat{\beta}_{2k}(X_{i2k}) + \sum_{j=1}^J \hat{\phi}_{jk} Z_{jik}}}{1 + e^{\hat{\beta}_{1k}(X_{i1k}) + \hat{\beta}_{2k}(X_{i2k}) + \sum_{j=1}^J \hat{\phi}_{jk} Z_{jik}}} \quad (1)$$

where:

1. ν_i indicates a vote for the Chief Executive party by voter i
2. X_{i1} is a dummy for positive economic evaluations measured at the individual level
3. X_{i2} is a dummy for negative economic evaluations measured at the individual level
4. Z_{ij} are other characteristics of individuals that shape self-reported vote choice

Once we estimated these models for each of the approximately 87 voter preference studies in our sample, we then estimated the relative importance of each of the five economic vote calculi (including the null model) for each individual in each of the surveys – so for approximately 34,000 respondents. The relative importance was estimated as follows:

1. for each voter preference survey, estimate five separate models (null, prospective sociotropic, retrospective sociotropic, prospective egocentric, and retrospective egocentric)
2. employing the model estimates and their standard errors generated for each voter conduct 1000 simulations that randomly draws each time from the distribution of each parameter and uses these random draws from the parameter distributions to generate a prediction for each of the five models
3. determine which of the five predicted probabilities were most consistent with the case's actual voter choice (for or against the Chief Executive party)
4. for each case sum the number of times out of the 1000 simulation the case generated the most consistent prediction
5. these ratios of most consistent over 1000 (which sum to 1 over each case) are the dependent variable in the analysis

3.2 Micro-level Results

One of our central concerns in this essay is understanding how income shapes the voter's choice of one of the four types of economic vote types. Our hypothesis is that particular income groups favouring certain types of economic voting can have consequences for income inequality. In particular a situation where the more well off favour the egocentric economic vote while the less well off favour the sociotropic economic vote, is an invitation for exaggerating income inequality. To gain better insight into whether this is in fact the case we analyze the patterns of economic vote types across income categories for the countries in our sample. The results are reported in Table 3. In general, there is little evidence of a correlation between income and the egocentric vote which certainly raises questions about the notion that rich tend to be more sophisticatedly egocentric. The U.S. is a possible exception in that the rich tend to be more likely to engage in egocentric voting although they are also more likely, than to not exercise an economic vote, to exercise a sociotropic vote. Canada may be the only case that fits the "rich tend to vote egocentrically" model. In this sample we see that the better off are more likely to exercise a prospective egocentric economic vote. In fact, generally, to the extent there is an income effect, the more well-off seem to favour sociotropic economic votes.

Table 3: Income Levels and Type of Economic Vote

	Retro-Socio	Pro-Socio	Retro-Pocket	Pro-Pocket
Australia	–	–	0	0
Canada	0	0	0	+
Denmark	+	+	0	0
France	0	0	0	0
Germany	0	0	0	0
Greece	0	+	0	0
Hungary	0	0	0	0
Ireland	0	0	0	0
Norway	+	+	0	0
Portugal	–	+	–	–
Spain	0	0	0	–
UnitedStates	+	+	+	+

3.3 Macro-level Results

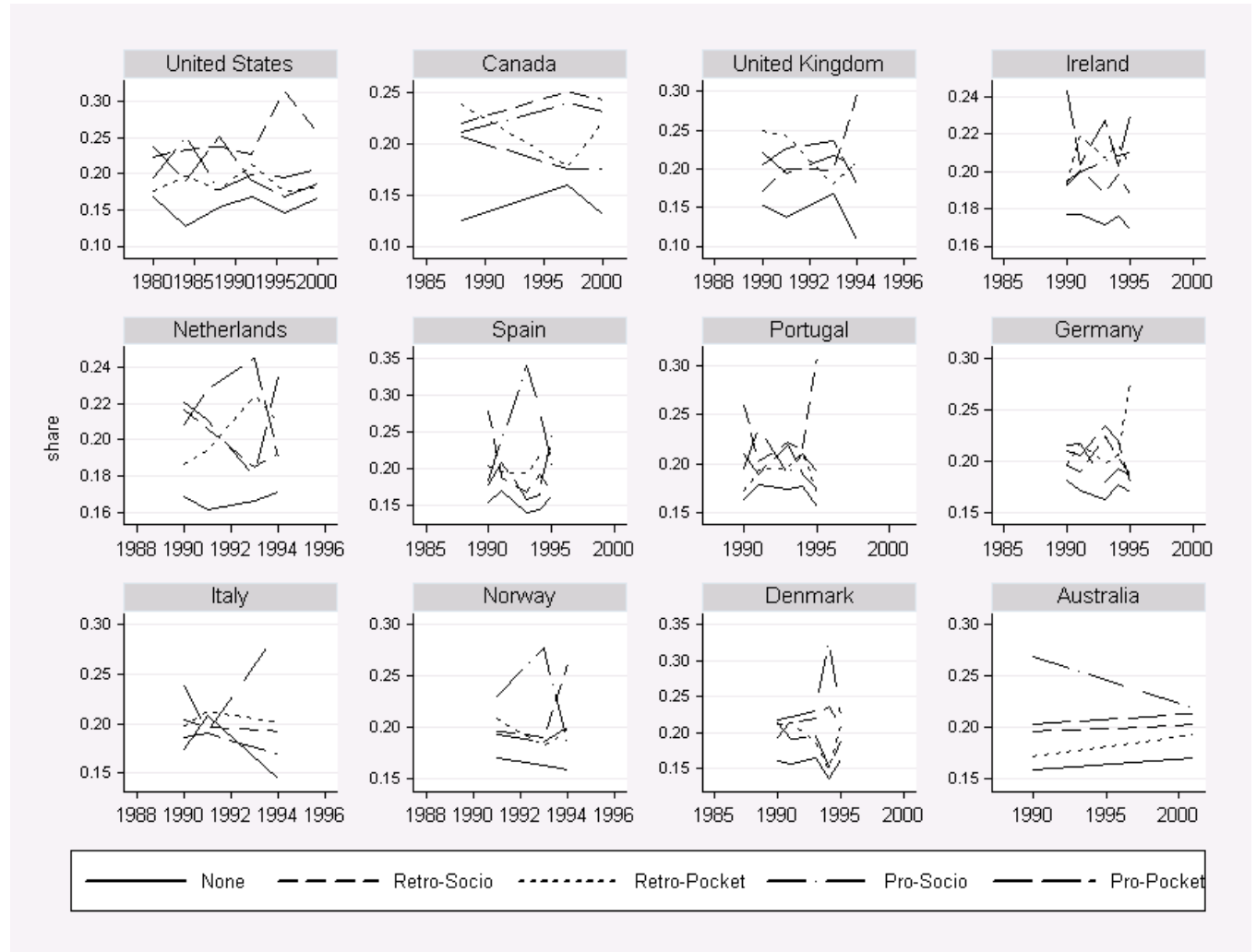
As described above, our empirical approach allows us to simulate the number of times each respondent relies on any and none of the economic calculi of voting. Therefore, it is straightforward to calculate the relative proportions of individuals employing the different economic evaluations in their vote choice at the country-year level. For example, our simulations suggest that in Australia (in 1990) about 15.9 percent of respondents didn't rely on any kind of economic evaluation; about 17.2 percent and 19.6 percent employed retrospective personal and sociotropic economic evaluations, respectively; about 20.3 percent relied on the prospective personal economic calculus of voting; while the remaining 26.9 percent voted in a prospective-sociotropic way. At times, we will use the mode of these percentage shares (or proportions) to classify country-years into one of the five possible types.

What are the macro-level patterns of economic evaluations? Figure 1 displays select countries from our data-set. All displayed countries are advanced industrialized countries (AICs).⁴ The Figure suggests at least four (preliminary) findings. First, the category of "no economic calculus" (labeled "None" in the Figure) is almost always the smallest, and never the largest. Especially in light of a recent comprehensive study which finds that the "economic vote" is fairly small Duch and Stevenson (2008), this finding may surprise. However, remember that our simulations are not concerned with significance tests but with the question whether any (and which) economic calculus improves the data fit. Second, there is quite a bit of variation across countries and over time (please note the country-scaled axes!). Third, the "average" distribution of calculi of economic voting is fairly even (around 0.21). Fourth, the distribution of modes finds the following rank-order of economic calculi: Pro-Socio 40 percent (23 out of 58) > Retro-Socio 24 percent (14) > Pro-Pocket 21 percent (12) > Retro-Pocket 15 percent (9). This puts sociotropic economic evaluations clearly on top of the list, but it also suggests that prospective

⁴We left out France and Greece, which both contain likely outliers. In France in 1994, Retro-Socio achieves about 0.62. In Greece in 1991, Retro-Pocket is reported as 0.61. These may or may not be outliers, but as a precautionary measure, we drop these two country-years from the analysis.

evaluations dominate retrospective ones.

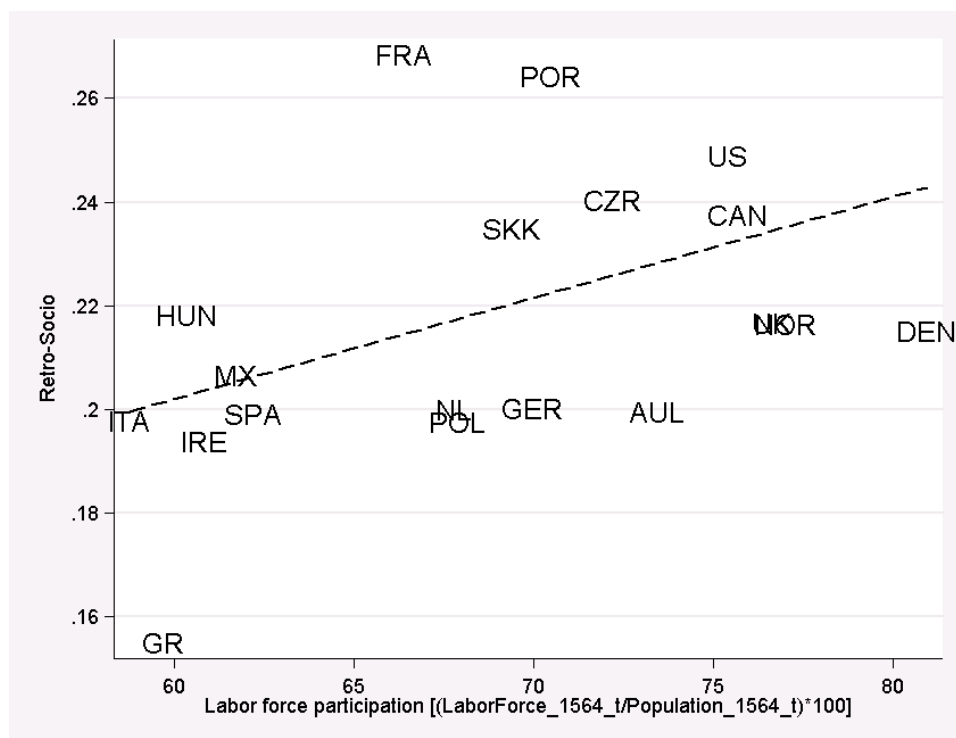
Figure 1: Magnitude of Five Types of Economic Voting



What explains these patterns? Above, we conjectured that three factors may influence patterns of economic evaluations: salience, incentives/information, and ideology. And we specified three specific empirical hypotheses.

Salience. As anticipated, and as Figure 2 illustrates, the more people are participating in the labor market (i.e. the higher labor force participation rates), the higher the share of people applying the Retro-Socio logic.

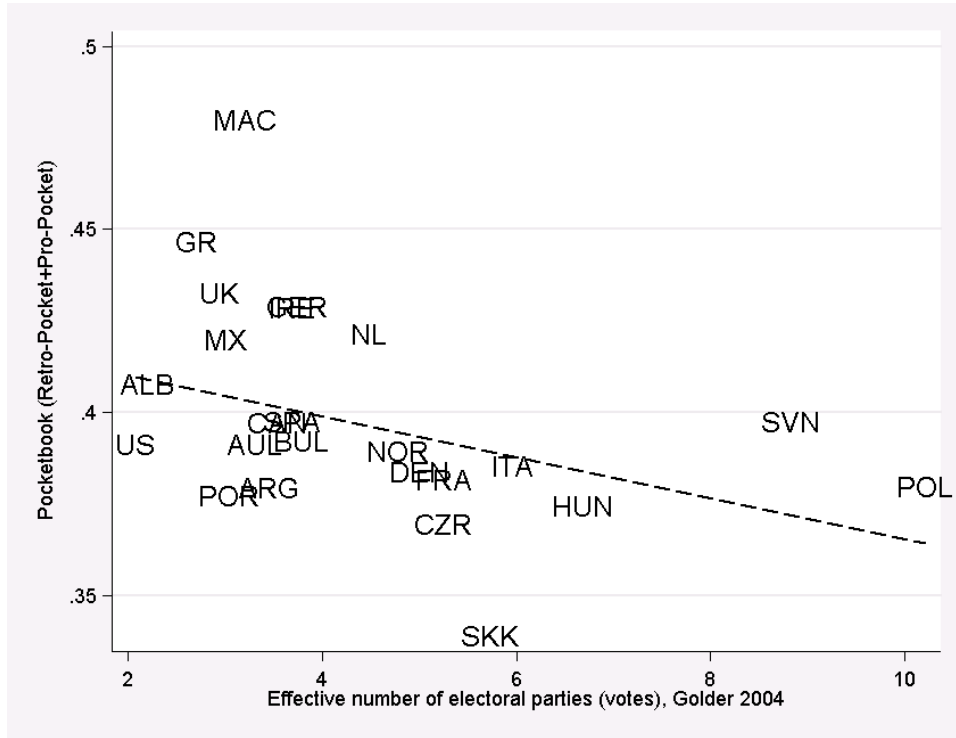
Figure 2: Labour Market Participation and Type of Economic Voting



Incentives / information. Conjectures and variables that can be thought of relating to incentives or information perform generally quite well. In particular, properties of electoral systems seem to induce certain voting behaviors. For example, the more parties there are (as measured by the effective number of electoral party votes or seats (Golder, 2005)), the less likely is Pro-Pocket voting (and personal voting more generally) - a finding that resonates well with conventional arguments about the clarity of executive decisions (Powell, 2000). In contrast, incentives for politicians to cultivate personal votes (measured in various ways; see Golder (2005) and Carey and Shugart (1995)) generally do increase selfish forward-looking behavior (i.e. Pro-Pocket voting). More generically, proportional

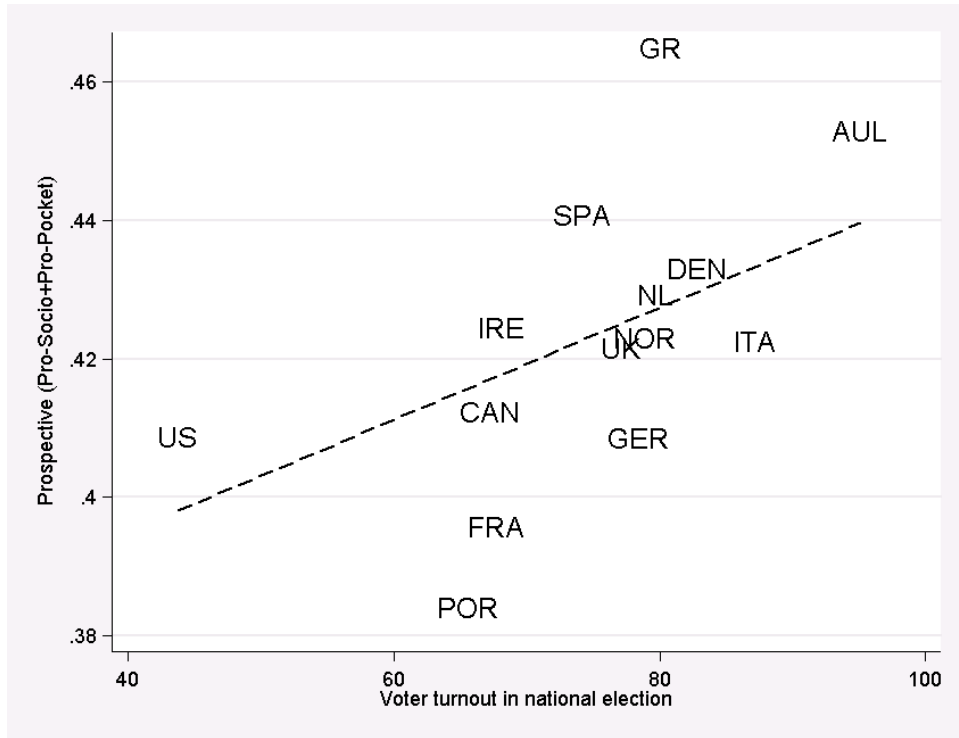
systems discourage prospective pocketbook voting. In fact, pocketbook voting (pro- or retrospective) is never the dominant calculus of economic voting in proportional systems.

Figure 3: Effective Number of Parties and Type of Economic Voting



Ideology. As Figure 4 indicates, higher voter turnout - which has been suggested to increase the saliency of narrower self-interested economic issues for the average voter - does decrease Retro-Socio.

Figure 4: Voter Turnout and Type of Economic Voting



4 Conclusion

The theoretical motivation and the results reported in this essay are clearly still preliminary. Nevertheless, they suggest the theoretical and empirical direction is likely a promising one. First, we argue that the four typical calculi of economic voting (retrospective sociotropic; retrospective egocentric; prospective sociotropic; and prospective egocentric) vary significantly across individual (individual-level heterogeneity), over time and across countries. We are interested in understanding how this economic vote is exercised – and what accounts for its variation – because we believe this has important implications for our understanding of the extent to which government policies produce more, or less, income inequality in a country.

These preliminary empirical results are encouraging. First, the micro-level analyses suggest that retrospective and prospective sociotropic economic voting tends to be most prevalent in the advanced democracies. Nevertheless, the individual-level models suggest considerable variation – and there are clearly countries in this what we are calling sophisticated self-interest economic voting takes place. The macro-level results are intriguing. They clearly suggest that context likely condition which of these four economic voting calculi are likely to prevail. Preliminary results suggest that higher labour force participation rates generates more sophisticated self-interested economic voting. Also, the more parties there are (as measured by the effective number of electoral party votes or seats, the less likely is prospective pocket voting (and personal voting more generally) - a finding that resonates well with conventional arguments about the clarity of executive decisions. Finally, higher voter turnout - which has been suggested to increase the saliency of narrower self-interested economic issues for the average voter - decrease retrospective sociotropic voting.

In a preliminary analysis of the micro-level data we explored the notion that there are systematic differences in the particular type of economic vote exercised by high versus low income voters.

We believe these preliminary results suggest that representation, as captured by economic voting, will likely vary cross-nationally in a fashion that will generate greater levels of inequality in some context relative to others.

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