

Economic Voting: Do Institutions Affect the Way  
Voters Evaluate Incumbents?\*

June 1, 2004

Yoshitaka Nishizawa  
Political Science Department  
Doshisha University  
Kyoto, 602-8580 Japan  
[ynishiza@mail.doshisha.ac.jp](mailto:ynishiza@mail.doshisha.ac.jp)

## 1. Introduction

A classic reward-punishment model of economic voting (Key 1966; Goodhart and Bhansali 1970; Kramer 1971; Muller 1970) is a simple yet powerful tool to explain voting decisions. It holds that when voters find that an incumbent government has done a good job in controlling the state of the economy during its term, they vote for the incumbent government parties or candidates on election day, and when voters are not happy about the way that incumbents have handled the economy, they vote for the opposition parties or their candidates.

Naturally, a large body of literature has developed under this topic since the model was first introduced. Many theories about the mechanism of economic voting, far more sophisticated than the original simple reward-punishment model, have been proposed and tested empirically.<sup>1</sup> Lewis-Beck and Paldam (2000) concisely summarize the findings of some thirty years of research in the field. According to them, we now know that economic changes are associated with both day-to-day popular support of the incumbent government (popularity function) and support of the government at polls on election day (vote function). We also know that unemployment and inflation, among other available macroeconomic indicators, most successfully exhibit associations with the vote and the popularity functions. Most researchers also agree that voters' memories about the economic variables that affect the voting decision are short in time. We also know that voters react to past economic events more (retrospective) than to future ones (prospective). We also believe that voters evaluate the government's performance based both on the national economic well-being (sociotropic) and on personal economic situation (pocketbook). Past empirical studies, however, tend to support the former more often than the latter. It is also reported that voters' response to the economy is not symmetrical. They seem to react more when the economy fails than when it progresses. Little is known, however, about voters' cognitive processes when they make political decisions using macroeconomic information.

Finally, Lewis-Beck and Paldam point out that the economic voting literature suffers from instability. Any particular proposition related to the above-mentioned findings may be empirically supported with one type of data – say, for example, aggregate data – but may not be so with other types of data – for example, individual survey data. The same proposition tested and found to be valid in one country may not be applicable to other countries, or may not be sustained even in the same country at different times. Given the amount of energy and time devoted to these topics, such contradictory results are a rather striking reality to me (and perhaps to many other political scientists), but Lewis-Beck and Paldam confess that this instability is “the main reason why this research has shown no tendency to die” (2000, p. 113).

The Comparative Study of Electoral Systems (CSES) data set (Module 1) is not designed to further investigate any of the particular topics Lewis-Beck and Paldam listed. It does, however, provide us with an important opportunity to test a set of propositions that may help us understand the reasons for the instability problem. It allows us to systematically investigate the effect of institutional factors that mediate and shape the mechanism between voters' evaluation of the economy and support for the incumbent government. Combining cross-sectional survey data from different countries

with varying political institutions, we can now study the effect of the economy on voting while taking institutional factors into consideration. The data set is unique in that an identical set of survey questions was administered in the participating countries specifically designed to measure institutional effects.

In recent years, the role of political context received increased attention (Lewis-Beck 1988; Paldam 1991; Powell and Whitten 1993; Anderson 1995a, 2000, Pacek and Radcliff 1995; Leyden and Borrelli 1995; Lowry, Alt and Ferree 1998; Kiewiet 2000; Rudolph and Grant 2002). This is a natural development. A basic logic of economic voting requires voters to be able to identify who is responsible for the current economic situation. If, for example, a voter finds the economy growing but does not believe the president is responsible for such economic successes, the link between the economy and support for the president cannot logically exist. Similarly, even if a voter feels that his financial situation has worsened lately, if he cannot decide whether he should blame the president or members of the legislature, the link between the economy and support for particular actors in the government should be unclear. Importantly, it is political institutions that determine the clarity of responsibility.

Among possible institutional comparisons, I will make two sets of comparisons: One between parliamentary countries and presidential countries, and another between countries with plurality electoral systems and those with proportional representation (PR) electoral systems. I will, first, demonstrate that economic voting can be found more often in parliamentary countries than in presidential countries. As I will discuss in more detail later, there are competing hypotheses as to whether parliamentary systems or presidential systems facilitate economic voting. The empirical analysis here suggests that the former is stronger than the latter. Second, I will show that a stronger link between the economy and support for the government can be found among plurality electoral system countries than the PR countries.

Another unique aspect of the CSES data set is that it includes developing countries along with established OECD countries. Unlike most of the comparative studies conducted so far that only deal with OECD countries (for example: Powell and Whitten 1993; Lewis-Beck 1988; Anderson 1995a, 1995b), the CSES data set provide with us an opportunity, for the first time, to test whether economic development is a prerequisite for economic voting to take place. I will demonstrate that economic management is even more important for incumbent governments in developing countries than OECD countries.

In the remainder of this chapter, I will proceed in the following manner. In the next section, I will review competing hypotheses as to which system, parliamentary or presidential, exhibits better clarity of responsibility. I also will review arguments about electoral systems, again, in terms of clarity of responsibility. In the following section, I will introduce a statistical model. Because the dependent variable is an incumbent vote that is a dichotomous choice, I will use logistic regression models. The models will include interaction terms between the institutional type and evaluation of the economy. The estimated coefficients for the interaction terms are the main interest of the study. I will then present operational definitions of dependent variables and the main independent variables. Then, I will present the estimation results in a form of post-

estimation simulation, highlighting the effects of interaction terms. The chapter will end with a summary and a discussion of the limitations the CSES data set inherits. I do not pretend to have solved the instability question, because of the limitations I face, but I think I can demonstrate significant implications for the future study of economic voting.

## 2. Clarity of Responsibility and Political Contexts

### 2.1 Parliamentarism vs. Presidentialism

Among possible classifications of democracies, the most fundamental distinction is between parliamentarism and presidentialism.<sup>2</sup> In parliamentary governments, the head of the government (often called the prime minister or premier) is elected by members of the legislature, and therefore is responsible to the legislature. And she herself and her cabinet are dependent on the confidence of the legislature. She will serve for a fixed term, but can be removed from office by the legislature with a no confidence vote. In presidential governments, the head of the government (mostly called president) is elected directly by citizens separately from the legislature. She serves for a fixed term and, except for the rare case of impeachment, she cannot be politically removed from her office by the legislature (Lijphart 1984).

The question here is which of the two institutional arrangements is more favorable to facilitating economic voting. Arguments can be made in support of both systems.

The most distinctive nature of presidential government is the direct election of the chief executive. Lijphart (1992, p. 12) considers this as one of the most significant advantages of presidential system. In terms of the level of direct accountability between voters and elected officials, Shugart and Carey (1992, p. 44), too, claim that presidentialism is “clearly” superior to parliamentarism, “since voters vote directly for an executive that cannot be removed by shifting coalitions in the assembly.” Because a president is elected by a direct popular vote, unlike his counterpart in a parliamentary government whose head is indirectly elected, voters regard him as the most important and powerful figure in the government. In addition, an incumbent candidate running for re-election frequently appears in newspapers and network news programs while he holds office. Even a non-incumbent candidate or challenging candidates receive considerable public attention during the election campaign. Because of that, voters may find it easier to associate policy responsibility with the president than with any other political figure in the government.

The same argument, however, can be made for a prime minister in most parliamentary countries. Particularly in parliamentary systems with a dominant two-party system, the head of the majority party usually becomes the prime minister. Thus, even if the selection process is indirect, voters, in effect ‘elect’ a head of the government by selecting a majority party in the parliament. In everyday politics as well, strong prime ministers can be a focus of mass media, perhaps as much as their counterparts in presidential countries. In such cases, voters find it almost as easy to assign responsibility to the prime minister as in presidential countries. In other words, due to the phenomenon of highly visible prime ministers, we cannot decide which of the

two agents, presidents in pure presidential countries or prime ministers in pure parliamentary countries, is likely to collect more of the attention of the voters.

In terms of clarity of responsibility, the more important distinction between parliamentarism and presidentialism lies in the fact that there is only one agent of the electorate, a legislature, for parliamentary systems whereas in presidential systems there are two-- a legislature and a president (Shugart and Carey 1992, p. 1). The separation of power for the presidential systems means division of responsibility, which in turn implies unclear responsibilities.<sup>3</sup> As a consequence, the voters cannot know whom to credit or blame for the policy outcomes.

The fact that there are two agents, both of which are supposed to be working for the interest of the electorate, makes it difficult for the voters to identify which of the two is responsible for the current state of the economy. Identifying responsibility becomes even more difficult when the two agents are controlled by different political parties, just like the recent situation in the US where the presidency is controlled by the Democratic party and congress by the Republican party. When a seemingly effective economic package prepared by the congress was supported by the president, and the package, in fact, was successful, should voters credit the congress (the Republican party) or the president (the Democratic party). Or, when the congress and the president cannot agree with each other on a certain set of economic programs, and the delay of action caused by this deadlock made the situation even worse, which of the two, the congress (the Republican party) or the president (the Democratic party) should voters blame for their inability to compromise in a timely fashion?

Provided that clarity of responsibility is the main mediating factor in the link between the economy and support for the government, and assuming all other things to be equal, I will have a better chance of finding supportive evidence of economic voting in parliamentary countries than in presidential countries.

## 2.2 Electoral Rules: Majoritarian vs. Proportional Democracy

Another important classification of democracy has to do with two distinctive types of electoral rules and two corresponding principles that each rule aims to realize. The two principles are, to use Huber and Powell's terms, the Majority Control vision of democracy and the Proportionate Influence vision of democracy (Huber and Powell 1994; Powell 2000). The former is mostly associated with single-member plurality electoral systems and the latter is often realized in proportional representation systems.

Under the majority control vision of democracy, the political institutions and electoral rules are designed to produce a single majority party. The majority party is expected to take control of the policy-making process. The congruence between citizens and policymakers is observed in that the majority of citizens explicitly support the government. And a majority party is produced most likely by a single-member plurality electoral system. Under single-member plurality rules, voters whose first preference is a candidate of a third party or even weaker party have no chance of winning, and thus tend to vote for the better of the candidates offered by the top two

parties. As a result, the rules tend to produce two-party systems (known as Duverger's Law).

Under the proportional influence vision of democracy, legislatures are expected to be made of all parties that represent all citizens. In such legislatures, any one party is unlikely to win a majority of seats, so governments are formed by coalitions of several parties. The congruence between citizens and policymakers, in other words, is expected to be obtained by the post-election bargaining among parties. This type of party system is most often realized by proportional representation rules.

Obviously, clarity of responsibility is greatest when the government is composed of a single party. Voters can easily identify which party to credit when the economy is in good condition, and which party to blame when the economy is poor. If, on the other hand, the responsibility is dispersed among several governing parties, and especially, the governing parties are decided not directly by the vote at the election time but by bargaining among parties after elections, voters have a hard time deciding which party to credit/blame for the economy. I should, therefore, have a better chance of finding evidence of economic voting among countries that employ single-member plurality rules than countries with PR rules.

### 3. Does Economic Voting Assume Economic Development?

Given a large number of studies generated under the topic of economic voting, it is rather surprising to find that virtually all of them use economically developed countries (mostly OECD countries) as their cases of investigation. The fact that most of the theories and hypothesis so far have only been tested in the OECD countries leaves us with an important question: Is economic development a prerequisite for economic voting to take place? Does what we know so far about economic voting remain valid in all democratic countries or will it hold only in highly developed countries? The CSES data set, with data from both OECD countries and non-OECD countries, provides me with a rare chance to confront this puzzle.

There are several possible reasons why non-OECD countries have not been studied so far. For one, it is not easy to collect comparable and reliable data on economic conditions and political behavior in newly developing countries. But, more importantly, I suspect that in the mind of those who have studied the relationship between the economy and the political support of incumbents, consciously or unconsciously, there exists an assumption that a certain degree of economic stability must be established before economic voting can take place among citizens. Surely, governments must be able to control the economy, or at least the voters have good reasons to believe that their government is taking control of economy, before the governments are held responsible for economic management. It takes years of 'experiments' before governments learn to acquire effective economic policies to control their economy.

In his study of economy and voting behavior of four post-communist countries (Czech Republic, Hungary, Poland and Slovakia), Fidrmuc suggests that voters in the post-communist countries may behave differently from those in Western countries. He suggests four reasons: 1) voters' lack of experience with the political processes and

institutions of democracy; 2) uncertain effects of retrospective voting in times of extraordinary economic turbulence; 3) unique economic circumstances that reflect more of the consequences of the collapse of communism than of poor economic policies of the post-communist government and 4) much higher voter concern about economic well-being in these countries than in developed countries (Fidrmuc 2000, p. 200). In another study of economic voting in 17 OECD countries with special attention to differing levels of welfare spending, Pacek and Padcliff (1995) claim that the lack of a social “safety net” can increase voters’ sensitivity to economic fluctuations. Both of the studies, although their data are from OECD countries, suggest a need for attention to the level of economic development. I will, therefore, test whether there are observable differences in the probability of economic voting between economically developed countries and developing countries.

#### 4. Strategy to Identify Institutional Effects: A Basic Conceptual Model

My strategy in this chapter is to take full advantage of the unique nature of the CSES data set. Because it is a pooled cross-national data set, the CSES Module 1 permits me to directly measure the magnitude of institutional influence on the probability of economic voting. Unlike most studies in which model estimations are conducted at a country level and the coefficients for economic evaluations are then compared across counties (Lewis-Beck 1988 takes this approach, for example), I will not subdivide the data set by country. Instead, I will use the pooled cross-national data as one data set. I will also prepare a set of dummy variables for institutional factors. By including interaction terms between the economic evaluation variable and the institutional dummies in the model, I can directly access and test the impact of institutional factors.<sup>4</sup>

A basic conceptual model is represented in the following equation:

$$\ln \{P_{ij} / (1 - P_{ij})\} = B_0 + B_1 X_{ij} + B_2 X_{ij} Z_j + B_3 D_1 + \dots + B_m D_{J-1} + e_{ij}$$

In this equation,  $P_{ij}$  represents a probability of voter  $i$  voting for an incumbent candidate or an incumbent party in country  $j$ . Because the dependent variable is a dichotomous choice, a log ratio is assumed. The main independent variable (evaluation of economic performance) is denoted by  $X_{ij}$ . The parameter  $B_1$ , therefore, shows the magnitude of the main effect ( $X$ ). The term  $Z_j$  indicates a dummy variable that identifies a specific institutional type. The interaction term is a simple multiplication of the main effect and the institutional dummy variable. It is the  $B_2$  parameter, along with  $B_1$  for the main effect, that we are interested in.

The roles of the main effect and that of the interaction terms are conceptually represented in Figure 1. Let us suppose the effect of the main independent variable is operating in countries in group A (denoted as ‘interactive group’), but not in the rest of the countries (group B) (‘non-interactive group’). When a model is specified without an interaction term, it in effect attempts to reproduce a line in the middle (denoted by ‘A and B combined’). But, the middle line clearly is a misrepresentation of the reality. In

that case, the effect of the main independent variable is underestimated for the interactive group, and it is overestimated for the non-interactive group. A model with an interaction term will enable me to identify the fact that the main independent variable is operating only in one of the groups.

[Figure 1]

The D terms in the equation are binary dummy variables representing the J-1 countries where J represents a total number of countries in the analysis. They are included in the model to depict variances in the dependent variable that are specific to each country but not explained in the model.

A careful reader might have noticed that the equation above lacks a term for the institutional main effect (Z). As most standard texts for regression methods suggest, a model normally should include both main effects that “compose the interaction” (X and Z, in this case) when it has an interaction term (XZ) (see, for example Fox 1997, 149). Omitting the institutional main effect in my equation appears as if it forces the same Y-intercept for different types of institutions. It does not, however, create such a constraint. Once again, please note that my model has country dummy variables. By including country dummy variables, I am, in effect, estimating Y-intercepts for each country individually. In other words, I am assuming that a country dummy is composed of the variance that is unique to its institutional category and a variance that is associated specifically to each country.<sup>5</sup>

## 5. Operational Definitions of Dependent and Independent Variables

The dependent variable here is the incumbent vote: In parliamentary elections, whether a respondent voted for or against the parties (or a candidate of the parties) that formed a cabinet during the term prior to the general election; and in presidential elections, whether a respondent voted for or against the candidate who held the presidential office during the term prior to the election.

In a comparative study of this kind, even a simple concept of an ‘incumbent vote’ poses some complicated empirical issues. Of those, the most critical one is which vote among multiple votes that voters can cast in national level elections is most suitable for comparing across different political systems. The CSES data set has three different types of vote information: the presidential vote, the parliamentary party list vote, and the parliamentary candidate vote (Table 1). When I compare parliamentary systems with presidential systems in the analysis below, the parliamentary votes are used for the former countries and the presidential votes are used for the latter. Even for the presidential countries, however, when a particular election in the data set is for its parliament, the parliamentary votes naturally are evaluated. When I make other comparisons, one between single-plurality electoral systems with PR systems and another between OECD countries with non-OECD countries, the parliamentary votes are used for both parliamentary and presidential countries. For more information, interested readers should refer to the notes at the bottom of Table 1.

[Table 1]

Another issue is how to define ‘incumbents.’ For presidential elections, if the contest is a reelection of the incumbent president (Clinton at the US 1996 election, for example) the ‘incumbent’ is obvious. If, however, it is an open-seat election in which the past president decides not to run for re-election, identifying an ‘incumbent’ is not so automatic. In such a case, the ‘incumbents’ are determined individually. The Russian 2000 presidential election is one such example. Because Putin was considered to be a successor of the former president, a vote for Putin is coded as the incumbent vote.<sup>6</sup> For parliamentary systems, votes for any of the candidates (or party) of the government (or parties in the case of coalition government) are considered to be incumbent votes.<sup>7</sup>

The main independent variable is the evaluation of economic performance during the past government. It is measured as a response to the following question: “Would you say that over the past twelve months, the state of the economy in [country] has gotten better, stayed about the same, or gotten worse? (For those who answered “gotten better”:) Would you say much better or somewhat better? (For those who answered “gotten worse”:) Would you say much worse or somewhat worse?” Scores 0, .25, .5, .75 and 1 are assigned to these five response categories from “much worse” to “much better” respectively.<sup>8</sup>

Figure 2 summarizes the aggregate relationship between the percentages for incumbent votes and the mean scores of evaluation of economic performance for the 35 elections in the special release of the CSES Module 1.<sup>9</sup> An “eyeball” analysis of the scatter plot suggests that there is some association between the two indicators. In elections with high scores of evaluation of economic performance, the incumbent candidates or parties tend to receive higher vote percentages. And in elections with low scores, the incumbent candidates or parties tend to lose support.

[Figure 2]

## 6. Explaining Incumbent Vote: Models to be Tested

The models to be tested are summarized as following:

[Base Model, Model 1, 2]

$$\begin{aligned} \text{Incumbent Vote} = & b_1 \times \text{Satisfaction with Democracy} \\ & + b_2 \times \text{State of Economy} \\ & + b_3 \times \text{Evaluation of Economic Performance (EEP)} \\ & + b_{10} \times \text{Close Feeling to the Government Party} \\ & + b_{11} \times \text{Party Like/Dislike Scale} \\ & + b_{12} \times \text{Income} \\ & + b_{13} \times \text{University Education} \\ & + b_{14-41} \times \text{Country Dummies} \\ & + \text{constant} \end{aligned}$$

[Comparative Models, Model 3-8]

$$\begin{aligned} \text{Incumbent Vote} = & b_1 \times \text{Satisfaction with Democracy} \\ & + b_2 \times \text{State of Economy} \\ & + b_3 \times \text{Evaluation of Economic Performance (EEP)} \\ & + b_{4-9} \times \text{EEP} * \text{Institutional Dummies} \\ & + b_{10} \times \text{Close Feeling to the Government Party} \\ & + b_{11} \times \text{Party Like/Dislike Scale} \\ & + b_{12} \times \text{Income} \\ & + b_{13} \times \text{University Education} \\ & + b_{14-41} \times \text{Country Dummies} \\ & + \text{constant} \end{aligned}$$

Evaluation of Economic Performance (EEP) is the main independent variable. As explained earlier, it runs 0 for the economy being “much worse” through 1 for it being “much better” during the past 12 months.

The terms “Evaluation of Economic Performance \* Institutional Dummies” are interaction terms. Take Model 3 and 4 (presidential vs. parliamentary) as an illustration. There are two institutional dummies for this comparison: A presidential system dummy has value 1 for the presidential countries and 0 for the rest, and a parliamentary system dummy has value 1 for the parliamentary countries and 0 for the rest of the countries. Interaction terms are created by simply multiplying the EEP and the institutional dummy variables. The EEP x Presidential term, therefore, takes actual EEP values (EEP value x 1 = EEP value) for the presidential countries and 0 (EEP value x 0 = 0) otherwise. The EEP x Parliamentary term has actual EEP values for the parliamentary countries and 0 otherwise.<sup>10</sup>

In addition to the economic evaluation variable, I included several other independent variables in the model. The evaluation of the current state of the economy is included to control for the fact that the economic evaluation of the past twelve months is always relative to the state of the current national economy. A respondent may find that the economy is getting better, but he may believe that the national economy is still in a poor shape. If this is the case, the respondent may not be satisfied with the economic policies of the current administration. Or another respondent may consider the state of the economy still to be good, though she thinks it is not as good as twelve months ago. She, too, may not be happy with the economic policies of the current government. I have adopted a five point scale running from 0 for “the economy is very bad” to 1 for “the economy is very good.”

For some of the newly developed democracies, voters may be more concerned about the way the government is running than its economic performance. An indicator for satisfaction with democracy, therefore, is included in the model. It is a four point scale running from 0 for “not at all satisfied” to 1 for “satisfied” with the way democracy works in the country. I also included two variables in the model that measure general evaluation of the parties. One of them is the existence of a political party that a respondent “feels close to.” The variable is coded 1, if a respondent feels close to any

one of the incumbent parties and 0 otherwise. The second party evaluation measure is constructed from the “like/dislike” party indicators. In each country, up to six parties are evaluated on an 11-point scale running from 0 for “dislike” of a particular party to 10 for “like” that party. The variable here reflects a difference between the average “likeness” of incumbent parties and the average “likeness” of opposition parties. Table 2 lists parties in power for the closeness evaluation and opposition parties being evaluated on the like/dislike scale.

[Tables 2a and 2b]

Two demographic variables-- income and education--are added to the model. Clearly, change in the state of the economy affects poor voters differently from rich voters. Household income is a five-point scale running from 0 for the lowest quintile to 1 for the highest quintile (with an increment of .25 points). Education is another control variable. A person needs some level of information to make an intelligent evaluation of the governmental performance on national economy. The education variable is also coded 1 for those who have some university education or higher and 0 otherwise.

Finally, the 28 country dummy variables are included to control for the difference of probability of the incumbent vote that is not explained by the independent variables included in the model. West Germany, whose mean value for the dependent variable was closest to the overall mean value for the entire data set, was used as a reference point.<sup>11</sup>

## 7. Estimation Results

Because the dependent variable is coded 0/1 (1 for an incumbent vote and 0 for an opposition vote), I used a logistic regression estimation method.<sup>12</sup> The results are summarized in Tables 3a and 3b. For each model, the left column lists estimated coefficients and the right column lists probabilities that the coefficients are not being 0 by chance (i.e. significance level).

[Tables 3a and 3b]

Model 1 and Model 2 are the base models that do not have any institutional dummy variables. As the significance levels for “Evaluation of Economic Performance (EEP)” are .000 (i.e. smaller than .0005) for both Model 1 and Model 2, I can, statistically speaking, claim that economic voting is taking place in these 29 elections. Incumbent parties (or candidates of incumbent parties) are more likely to receive votes when voters consider the state of the economy on election day to be better than that of 12 months before, while opposition parties tend to collect votes when voters think the state of the economy fell behind during the past year.

Because the coefficients for the logistic regression estimation cannot be interrupted by their numeric magnitude, I have calculated the probability of incumbent vote for hypothetical values of the independent variable.<sup>13</sup> The results of these post-estimation simulations are summarized in Figure 3. As the solid line in Figure 3a shows, when all respondents judged the state of economy to be much worse, some 30% of the respondents would vote for incumbent parties, and when all considered the state of economy to be much better, 44% of the respondents would vote for incumbent parties. The variable, in other words, could theoretically produce a maximum increase of 14% in the support level for the incumbent party. Note, at the same time, that the line for Model 1 does not go across the 50% horizontal line which suggests that the EEP by itself would not make the incumbent parties a majority when other factors stay the same.

[Figures 3a, 3b, and 3c]

Model 3 and 4 compare presidential elections with parliamentary elections. The estimation results turn out to be exactly as I anticipated. It does exhibit the same pattern in Figure 1. While the coefficients of the main effect show statistically strong effects (.000, .000), the interaction terms, too, are statistically significant (.007, .007). And as Figure 3a illustrates, the parliamentary interaction line (Model 4) runs steep in slope, and the presidential interaction line (Model 3) stays flat, while the base line (Model 1) runs in between. In theory, the EEP can raise incumbent support by 19% in parliamentary elections, while it can only add 10 points in presidential elections. This is a strong evidence to support the following proposition: Parliamentary incumbents are more susceptible to the voters' evaluation of the economy than are presidential incumbents. Note, however, that the parliamentary interaction line does not still reach the 50% incumbent vote line, which suggests that even in the parliamentary countries the EEP by itself would not make the incumbent parties a majority when other factors stay the same.

Model 5 and 6 compare the plurality electoral systems with the PR electoral systems. For this comparison, the dependent variable is parliamentary incumbent votes for both presidential and parliamentary countries. The estimation results are, once again, exactly as anticipated. Although not as dramatic as the parliamentary vs. presidential comparison (note that the chances of error are higher (.015, .015 respectively) for this set of interaction terms), as in Figure 3b, the plurality interaction line (Model 5) runs steep in slope, and the PR interaction line (Model 6) stays flat, while the base line (Model 2) runs in between. In theory, the EEP can raise the chance of incumbent vote by 13% in plurality elections, but by only 5 points in PR elections. This supports my second proposition: Incumbents in plurality elections are more vulnerable to the voters' evaluation of economy than are the counterparts in PR elections.

Finally, Models 7 and 8 compare OECD countries with non-OECD countries. For this comparison, too, the dependent variable is parliamentary incumbent votes. The

estimation results indicate that EEP influences the probability of economic incumbent vote more in non-OECD countries than in OECD countries. The interaction terms are statistically significant (.000, .000).<sup>14</sup> As in Figure 3c, the non-OECD interaction line (Model 8) runs steep in slope, and the OECD interaction line (Model 7) stays flat, while the base line (Model 2) runs in between. In theory, the EEP can raise the chance of incumbent vote by 12% in non-OECD elections, but only 4 points in OECD countries. This suggests that voters in newly developing countries are not patient enough to wait for the economic infrastructure to be established before assigning responsibility to the government for its economic policy. The voters in such countries are even more sensitive to economic well-being in evaluating incumbent candidates and parties than those in economically developed countries.

## 8. Conclusion

Using the CSES Module 1, I have tested the possibility of economic voting in 29 elections included in the data set. The estimation results confirm that economic voting is taking place in these elections. The evaluation of economic performance during the 12 months period prior to the election does affect the probability of voting for incumbent party or parties (and candidates of incumbent parties). If the incumbent government is successful in managing the economy, it is rewarded with more votes at the next election, and if it fails, it is punished by a loss of votes.

I also tested the effects of institutional setting by comparing two sets of factors: parliamentary vs. presidential systems and plurality vs. pure PR electoral systems. I anticipated that the more the political institutions facilitate the clarity of responsibility, the higher the likelihood of economic voting among the electorates. The results did confirm my propositions. Parliamentary incumbents are more susceptible to the voters' evaluation of the economy than are presidential incumbents. Also, incumbents in plurality elections are more vulnerable to voters' evaluation of the economy than are their counterparts in PR elections. I also tested whether economic development is a prerequisite for economic voting to take place. The estimation results suggest otherwise. The economy seems to be the prime concern of voters, particularly in countries whose welfare safety-net is under developed.

While the empirical results presented here are all supportive of the idea that political or institutional context is an important intervening factor in economic voting, and while the statistical results are robust, I do not intend to claim that I have solved the "instability" puzzle in any way. It strongly suggests, however, that any future studies on economic voting must take the institutional factors into consideration.

There are at least two factors that make my statements modest: one is technical and the other is empirical. The statistical model I used here is a hybrid of what Jones and Steenbergen call "dummy variables models" and "interactive models" (Jones and Steenbergen 1997, Steenbergen and Jones 2002). As they suggest, these traditional methods "fail to account for macro-level stochastic variation across contextual units." If I had used a multi-level modeling technique, the picture might have been different. I

decided not to use the hierarchical multi-level modeling simply because I did not feel comfortable with a small amount of level-two variance (i.e. the number of countries).

Second, I worry about the existence of the idiosyncrasy associated with each election in different countries. Each election is unique in its own way. The US presidential election in 1996, for example, was contested during a relatively stable economic period. The economy may not have been the central issue for many American voters then. In 1996, Taiwan voters chose a president by popular vote for the first time. Establishing a democratic system must have been equally important for the Taiwanese. In New Zealand, the 1996 general election was contested for the first time under the new electoral system. Although the election was categorized as “PR” for the purpose of this analysis, New Zealanders’ voting behavior must have been influenced by the customs carried over from the previous electoral system. If I had a different set of elections for my analysis, estimation results might have been different.

I do not mean, however, to discredit the power of the data set. Perhaps the real significance and power of the CSES project is that despite the technical limitations and idiosyncratic factors, statistical analyses can illuminate some consistent and important patterns of voting behavior. The analyses here clearly suggest that institutional context matters.

---

#### Notes

\* An earlier version of this paper was presented at the XVIII IPSA WORLD CONGRESS at the Quebec Hilton in Quebec City, August 1-5, 2000. I am thankful for comments offered by the commentator, Hans-Dieter Klingemann, and other participants, including Gary Cox, John Curtice and W. Phillips Shively at the meeting. Advices from Ulises Beltran, Takashi Hashimoto, Mikitaka Masuyama, Tetsuya Matsubayashi, Takeshi Minakuchi, Etsuhiro Nakamura and Ole Borre at different stages of the project were also helpful.

<sup>1</sup> For reviews of the literature, see Paldam 1981; Kiewiet 1983; Kiewiet and Rivers 1984; Lewis-Beck 1988; Norpoth et al. 1991; and Nannestad and Paldam 1994. For a most recent discussion on this topic, refer to Lewis-Beck and Paldam’s introduction to the special issue of Electoral Studies (Lewis-Beck and Paldam 2000).

<sup>2</sup> Even within a category of presidential system, there are variations. For example, while there is a pure presidential system (Type 1), there are hybrid systems in which there are both a prime minister (as in a parliamentary system) and a directly elected president (Type 2 and 3) (See Shugart and Carey 1992, Shugart 1993, also see Shugart and Haggard 2001). Shugart (1993) considers Type 4 (Parliamentary with “president”) and Type 5 (“Pure” parliamentary) being essentially identical in executive-legislative relations. For the purpose of this chapter, however, I will treat the countries as ‘presidential’ as long as their head of the state is elected directly by the people.

<sup>3</sup> For critics of presidentialism this is a major drawback of the presidential system (for example, see Bagehot 1867).

---

<sup>4</sup> For a supportive discussion of using multiplicative terms in regression equations, see Friedrich 1982.

<sup>5</sup> I could include institutional dummies in place for country dummies. But, knowing the fact that a cross-country variance is larger than cross-institutional variances (see, Figure 2 that appears later), I chose to include country dummies instead.

<sup>6</sup> Asahi Daily Newspaper, 27 March 2000.

<sup>7</sup> Identifying “incumbent parties” for all countries included in the data set was not an easy task. I adopted the following rules. For countries whose macro pdf files are available on the CSES website and whose documentation provides cabinet member information with party affiliation, I considered as “incumbent” any party that had at least one minister. For other countries, I searched for newspaper reports and articles about the elections in the Asahi Daily Newspaper (corresponding various years). When a party is quoted as “government party” in the reports and articles, I identified them as “incumbent.” I must admit that this latter method does not guarantee an exhaustive list of the incumbent parties.

<sup>8</sup> The planning committee for Module 1 decided to adopt this ANES standard question for the evaluation of economic well-being of the past twelve months. This particular set of wordings measures 1) retrospective, and not prospective; and 2) sociotropic, and not pocketbook nature of economic voting. Numerous detailed studies on these topics exist. (See, for example, Kinder and Kiewiet 1981; Feldman 1982, 1988; Kiewiet 1983, 2000; Kramer 1983; Kiewit and Rivers 1984; Rosenstone, Hansen and Kinder 1986; Abramowitz, Lanoue and Ramesh 1988; Markus 1988; Kinder, Adams, and Gronke 1989; Erikson, MacKuen and Stimson 2000). They all imply one should be careful, theoretically and empirically, of selecting the measurement (i.e., the question wording).

<sup>9</sup> The analysis in this chapter is based on the CSES\_BERLIN.SAV (special release of CSES Module 1, prepared for this volume by Hans-Dieter Klingemann, Bernhard Wessels, and Hossein Shahla, Social Science Research Center Berlin, June 2002. I am thankful to them for their permission to use the data set.

The original data set prepared by Klingemann, Wessels, and Shahla contains information from 35 elections in 31 countries (or regions). I excluded some of the elections from the analysis for different reasons, mostly when one or more variables were missing. In the end, I included 29 elections (counting Canada, Quebec, East-Germany, West-Germany, Great Britain, and Scotland as different elections, as defined in the original data set).

Also, they defined each “vote cast” as a unit of analysis, which means that respondents who cast two votes (presidential and parliamentary votes in the U.S., or party list and candidate votes in Germany, for example) appear twice in the data set. While this design allows us to study fine distinction between different votes even for the same individual, my unit of analysis is not the individual vote, but is an individual voter. For that reason, I have altered the data structure back to the regular pooled cross-section

---

format. For the interested readers, I have made my SPSS command file available on my website at:

“<http://www1.doshisha.ac.jp/~ynishiza/pleasedownload.html>”.

<sup>10</sup> In a statistical sense, Models 3 and 4 are just mirror images of the same model because they differ from each other only by the institutional dummies that identify one of the two mutually exclusive, but exhaustive group categories. Presidential countries, for example, are coded 1 and non-presidential (i.e., parliamentary) countries are coded 0 for its institutional dummy in Model 3. In Model 4, however, presidential countries are coded 0 and non-presidential countries are coded 1 for the institutional dummy. In other words, Model 3 uses parliamentary countries as its base for dummy estimation while Model 4 uses presidential countries as its base. Nevertheless, they are estimating the same model. The same is true with Models 5 and 6, and Models 7 and 8 respectively. I will estimate both models in each set because I need estimates for both models to conduct a post-estimation simulation (discussed later).

<sup>11</sup> West Germany dummy does not appear in the equation for that reason.

<sup>12</sup> Sample sizes for different elections in the data set are different. All elections are weighted so that each becomes 1,500 respondents per election. I have treated Canada and Quebec as one country by assigning separate weights so that the two regions together become 1,500 respondents. I treated East-Germany and West-Germany in the same manner, as well as Great Britain and Scotland.

<sup>13</sup> First, I assigned a hypothetical value of 0 (i.e. “much worse”) for all respondents to the variable of interest (EEP) in the estimated equations, and calculated the probability of incumbent vote for that particular value. In another words, I estimated the probabilities of incumbent vote assuming all voters considered the economy as “much worse.” Then, I repeated the same procedure for other values of the EEP up to 1.0 (i.e. “much better”).

<sup>14</sup> The main effect (EEP) for the OECD model becomes statistically not significant (.111).

#### References

- Abramowitz, Alan I., David J. Lanoue and Subha Ramesh. 1988. ‘Economic Conditions, Causal Attributions, and Political Evaluations in the 1984 Presidential Election.’ *Journal of Politics* 50: 848-863.
- Anderson, Christopher J. 1995a. *Blaming the Government: Citizens and the Economy in Five European Democracies*. Armonk, NY: M.E. Sharpe.
- Anderson, Christopher J. 1995b. ‘The Dynamics of Public Support for Coalition Governments.’ *Comparative Political Studies* 28 (October): 350-83.
- Anderson, Christopher J. 2000. ‘Economic Voting and Political Context: A Comparative Perspective.’ *Electoral Studies* 19: 151-170.
- Bagehot, Walter 1867. *The English Constitution*. London: Oxford University Press.

- 
- Erikson, Robert S., Michael B. MacKuen and James A. Stimson. 2000. 'Bankers or Peasants Revisited: Economic Expectations and Presidential Approval.' *Electoral Studies* 19: 295-312.
- Feldman, Stanley. 1982. 'Economic Self-Interest and Political Behavior.' *American Journal of Political Science* 26: 446-466.
- Feldman, Stanley. 1988. 'Structure and Consistency in Public Opinion: The Role of Core Beliefs and Values.' *American Journal of Political Science* 32: 416-440.
- Fidrmuc, Jan. 2000. 'Economics of Voting in Post-Communist Countries.' *Electoral Studies* 19: 199-217.
- Fox, John. 1997. *Applied Regression Analysis, Linear Models, and Related Methods*. Thousand Oaks, California: Sage Publications.
- Friedrich, Robert J. 1982. 'In Defense of Multiplicative Terms in Multiple Regression Equations.' *American Journal of Political Science* 26: 797-833.
- Goodhart, C. A. E. and R. J. Bhansali. 1970. 'Political Economy.' *Political Studies* 18: 43-106.
- Huber, John D. and G. Bingham Powell, Jr. 1994. 'Congruence between Citizens and Policymakers in Two Visions of Liberal Democracy.' *World Politics* 46: 291-326.
- Jones, Bradford S. and Marco R. Steenbergen. 1997. 'Modeling Multilevel Data Structures.' Paper prepared for the 14th annual meeting of the Political Methodology Society, Columbus, OH, July 25, 1997.
- Key, V.O., Jr. 1966. *The Responsible Electorate: Rationality in Presidential Voting, 1936-1960*. Cambridge: Harvard University Press.
- Kiewiet, D. Roderick. 1983. *Macroeconomics and Micropolitics: The Electoral Effects of Economic Issues*. Chicago: University of Chicago Press.
- Kiewiet, D. Roderick. 2000. 'Economic Retrospective Voting and Incentives for Policymaking.' *Electoral Studies* 19: 427-444.
- Kiewiet, D. Roderick and Douglas Rivers. 1984. 'A Retrospective on Retrospective Voting.' *Political Behavior* 6: 369-393.
- Kinder, Donald R. and Roderick D. Kiewiet. 1981. 'Sociotropic Politics: The American Case.' *British Journal of Political Science* 11: 129-161.
- Kinder, Donald R., Gordon Adams and Paul Gronke. 1989. 'Economics and Politics in the 1984 American Presidential Election.' *American Journal of Political Science* 33: 491-515.
- Kramer, Gerald H. 1971. 'Short-Term Fluctuations in U.S. Voting Behavior, 1896-1964.' *American Political Science Review* 65: 131-43.
- Kramer, Gerald H. 1983. 'The Ecological Fallacy Revisited: Aggregate-Versus Individual-Level Findings on Economics and Elections, and Sociotropic Voting.' *American Political Science Review* 77: 92-111.
- Lewis-Beck, Michael S. 1988. *Economics and Elections: The Major Western Democracies*. Ann Arbor: University of Michigan.
- Lewis-Beck, Michael S. and Martin Paldam. 2000. 'Economic Voting: An Introduction.' *Electoral Studies* 19: 113-121.

- 
- Leyden, Kevin M. and Stephen A. Borrelli. 1995. 'The Effect of State Economic Conditions on Gubernatorial Elections: Does Unified Government Make a Difference?' *Political Research Quarterly* 48: 275-290.
- Lijphart, Arend. 1984. *Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries*. New Haven: Yale University Press.
- Lijphart, Arend, ed. 1992. *Parliamentary Versus Presidential Government*. Oxford; Oxford University Press.
- Lowry, Robert C., James E. Alt and Karen E. Ferree. 1998. 'Fiscal Policy Outcomes and Electoral Accountability in American States.' *American Political Science Review* 92 (December): 759-74.
- Markus, Gregory B. 1988. 'The Impact Of Personal And National Economic Conditions On The Presidential Vote: A Pooled Cross-sectional Analysis.' *American Journal of Political Science* 32: 137-154.
- Mueller, John. 1970. 'Presidential Popularity from Truman to Johnson.' *American Political Science Review* 64: 18-34.
- Nannestad, Peter and Martin Paldam. 1994. 'The VP-Function: A Survey of the Literature on Vote and Popularity Functions after 25 years.' *Public Choice* 79: 213-245.
- Norpoth, Helmut, Michael S. Lewis-Beck and J. D. Lafay, eds. 1991. *Economics and Politics: The Calculus of Support*. Ann Arbor: University of Michigan Press.
- Pacek, Alexander C. and Benjamin Radcliff. 1995. 'Economic Voting and the Welfare State: A Cross-National Analysis.' *Journal of Politics* 57: 44-61.
- Paldam, Martin. 1981. 'A Preliminary Survey of the Theories and Findings on Vote and Popularity Functions.' *European Journal of Political Research* 9: 181-199.
- Paldam, Martin. 1991. 'How Robust is the Vote Function?' In Helmut Norpoth, Michael S. Lewis-Beck, and J. D. Lafay, eds., *Economics and Politics: The Calculus of Support*. Ann Arbor: University of Michigan Press.
- Powell, G. Bingham, Jr. 2000. *Elections as Instruments of Democracy: Majority and Proportional Visions*. New Haven: Yale University Press.
- Powell, G. Bingham, Jr. and Guy D. Whitten. 1993. 'A Cross-National Analysis of Economic Voting: Taking Account of the Political Context.' *American Journal of Political Science* 37: 391-414.
- Rosenstone, Steven, John M. Hansen and Donald R. Kinder. 1986. 'Measuring Change in Personal Economic Well-Being.' *Public Opinion Quarterly* 50: 176-92.
- Rudolph, Thomas J. and J. Tobin Grant. 2002. 'An Attributional Model of Economic Voting: Evidence from the 2000 Presidential Election.' *Political Research Quarterly* 55 (December): 805-823.
- Shugart, Matthew S. 1993. 'Of Presidents and Parliaments.' *East European Constitutional Review* 2: 30-32.
- Shugart, Matthew S. and John M. Carey. 1992. *Presidents and Assemblies: Constitutional Design and Electoral Dynamics*. Cambridge: Cambridge University Press.

- 
- Shugart, Matthew S. and Stephan Haggard. 2001. 'Institutions and Public Policy in Presidential Systems.' In *Presidents, Parliaments, and Policy*, edited by Stephan Haggard and Mathew D. McCubbins. Cambridge: Cambridge University Press..
- Shugart, Matthew S. and Martin P. Wattenberg. 2001. 'Mixed-Member Electoral Systems: A Definition and Typology.' In *Mixed-Member Electoral Systems: The Best of Both Worlds?* edited by Matthew S. Shugart and Martin P. Wattenberg. New York: Oxford University Press.
- Steenbergen, Marco R. and Bradford S. Jones. 2002. 'Modeling Multilevel Data Structures.' *American Journal of Political Science* 46: 218-237.

Figure 1: Conceptual Representation of Interaction Effects

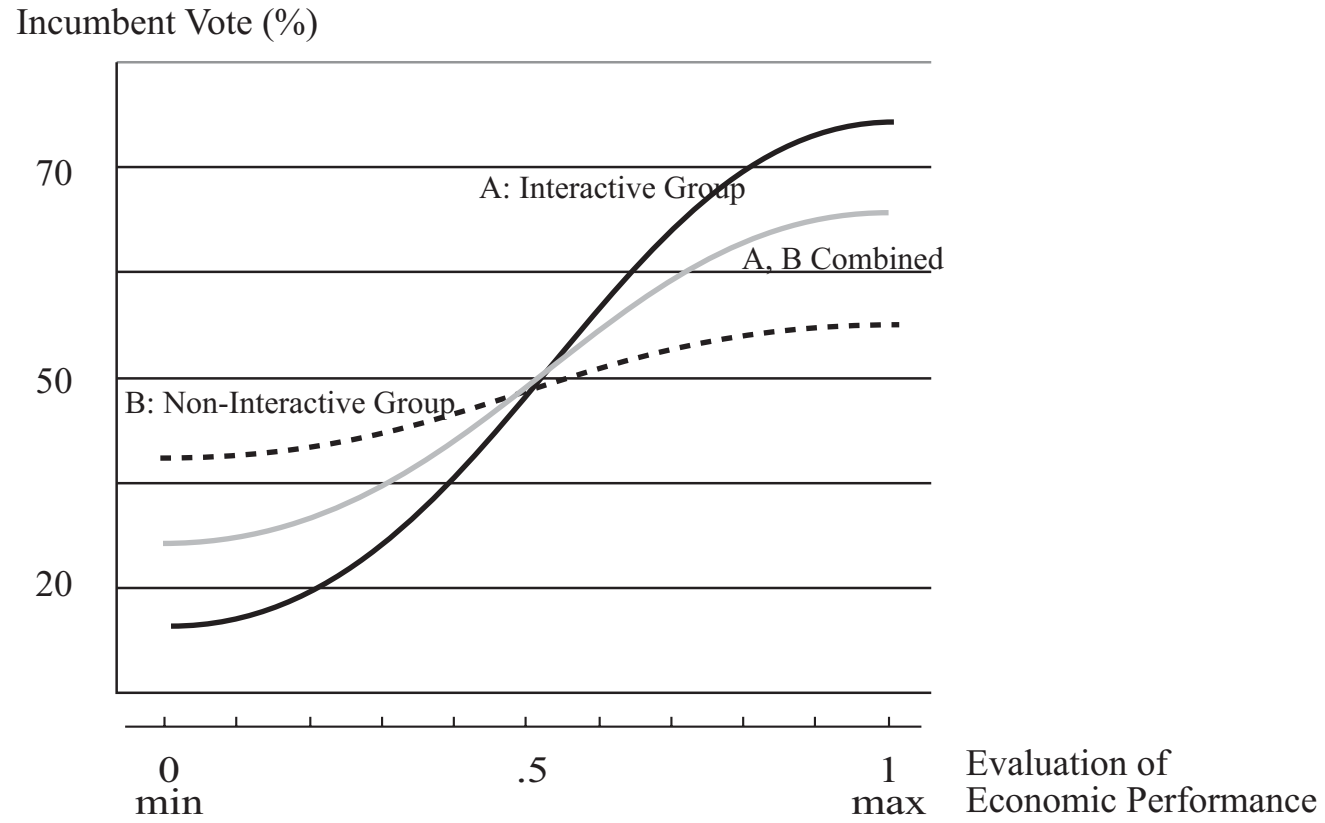
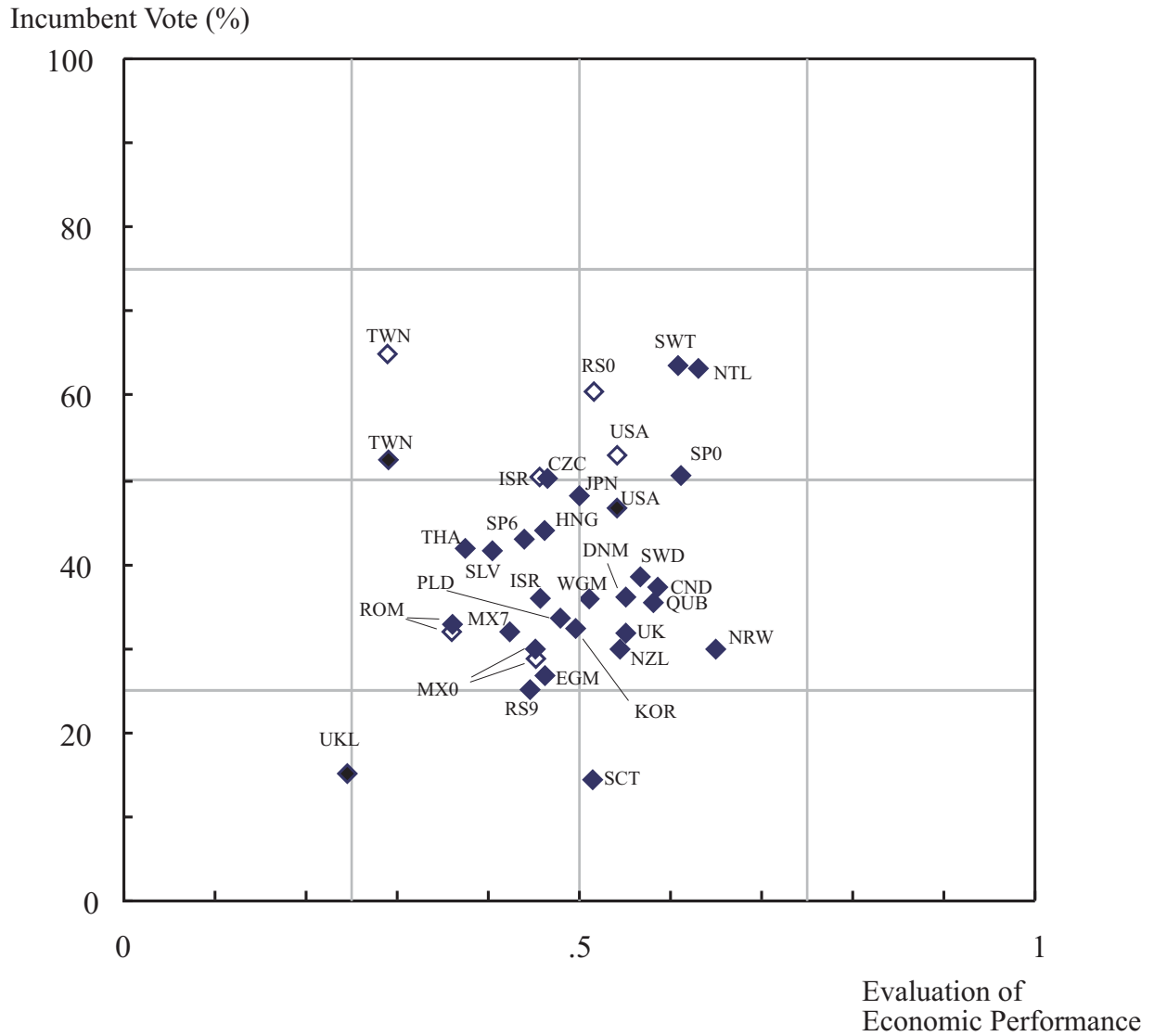


Figure 2: Evaluation of Economic Performance and Incumbent Vote in 35 CSES Elections



Country Keys -- CND: Canada, CZC: Czech, DNM: Denmark, EGM: East-Germany, HNG: Hungary, ISR: Israel, JPN: Japan, KOR: Korea, MX7: Mexico 1997, MX0: Mexico 2000, NTL: Netherlands, NZL: New Zealand, NRW: Norway, PLD: Poland, QUB: Quebec, ROM: Romenia, RS9: Russia 1999, RS0: Russia 2000, SCT: Scotland, SLV: Slovenia, SP6: Spain 1996, SP0: Spain 2000, SWD: Sweden, SWT: Switzerland, TWN: Taiwan, THA: Thailand, USA: USA, UKL: Ukraine, UK: Great Britain, WGM: West-Germany

Code -- ◇: Presidential (Prime Ministerial) , ◆: Parliamentary

Figure 3a: Summary Effects of Evaluation of Economic Performance: Presidential vs Parliamentary

Incumbent Vote (%)

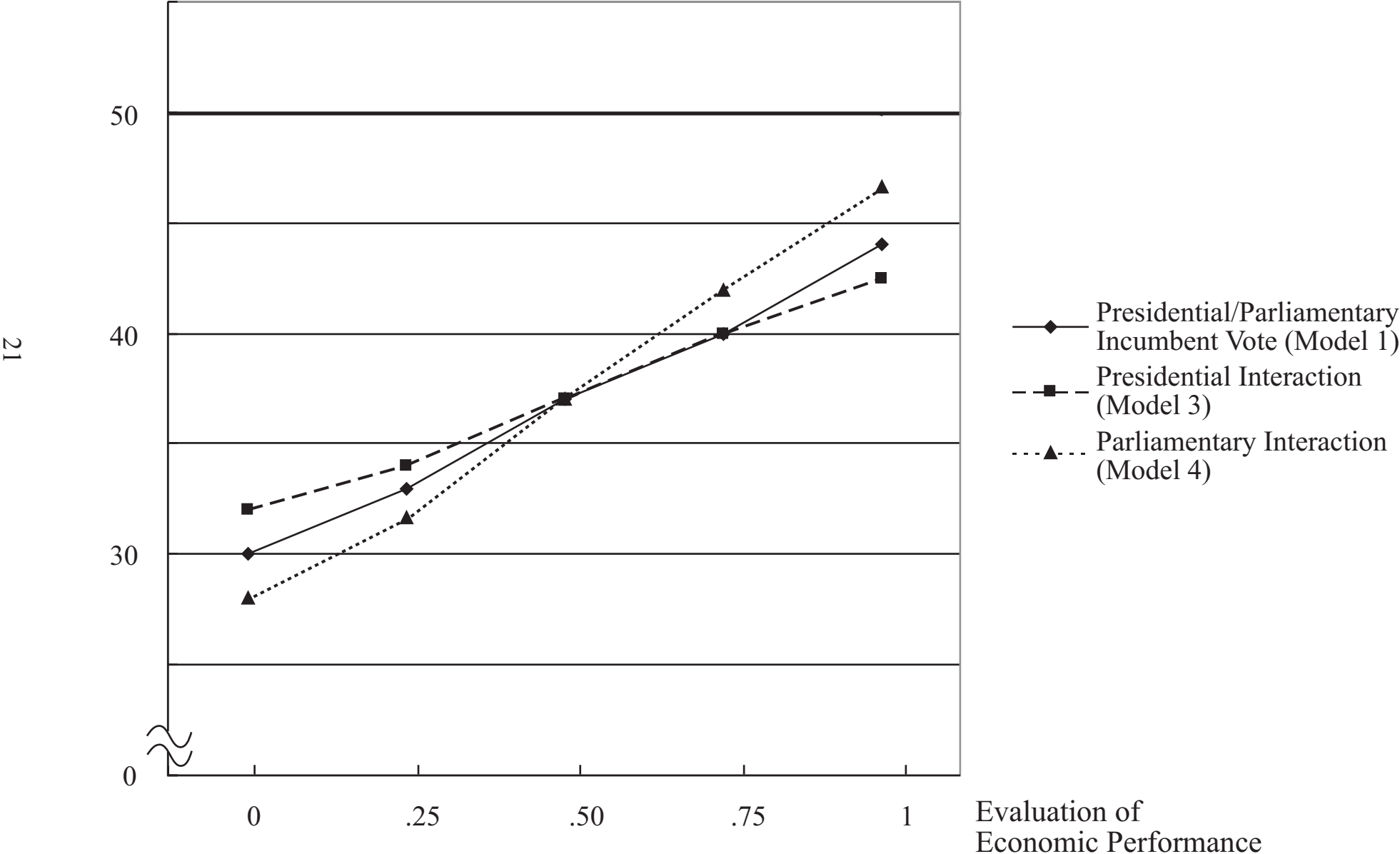
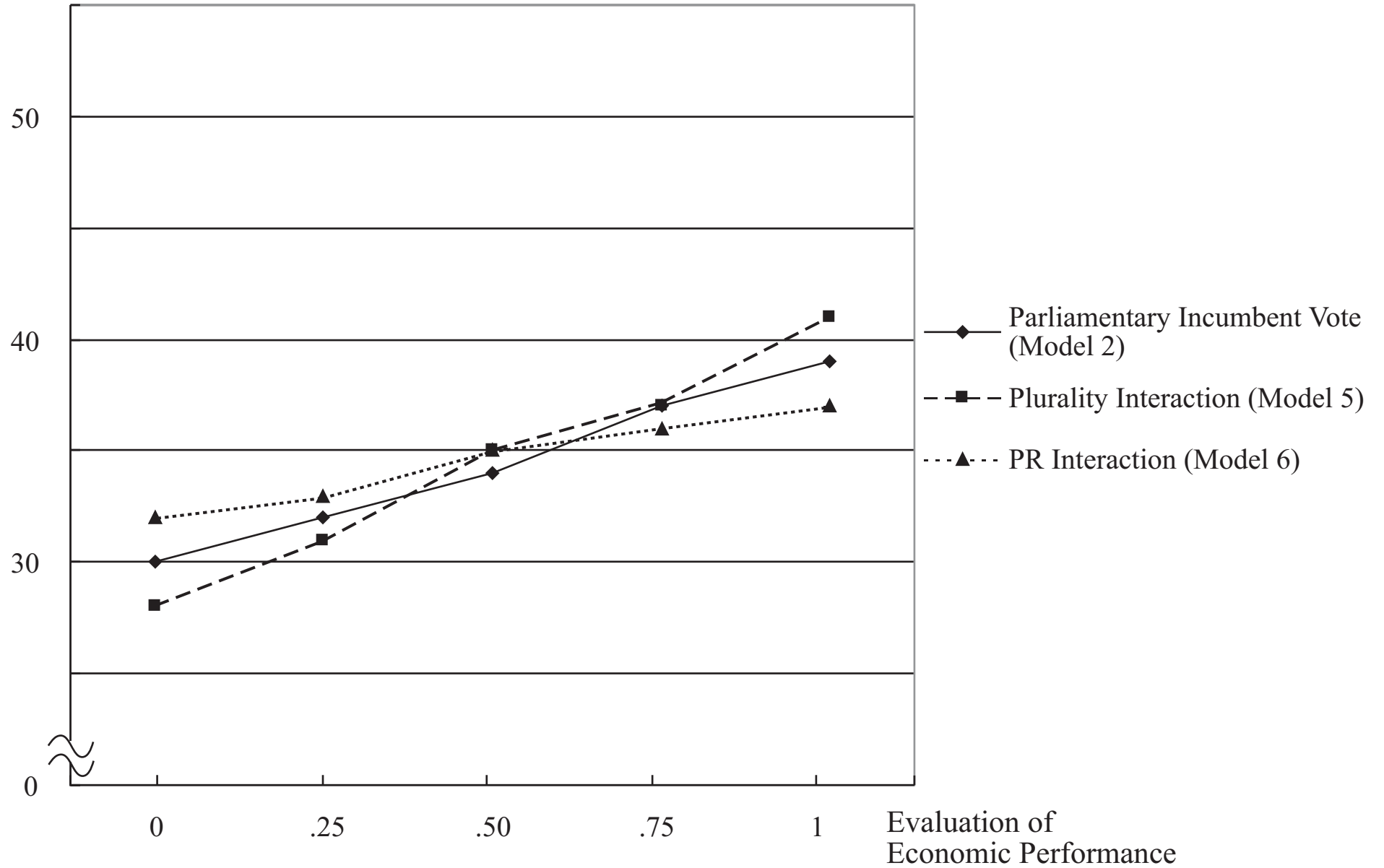


Figure 3b: Summary Effects of Evaluation of Economic Performance: Plurality vs PR

Incumbent Vote (%)

22



Evaluation of  
Economic Performance

Figure 3c: Summary Effects of Evaluation of Economic Performance: OECDs vs Non-OECDs

Incumbent Vote (%)

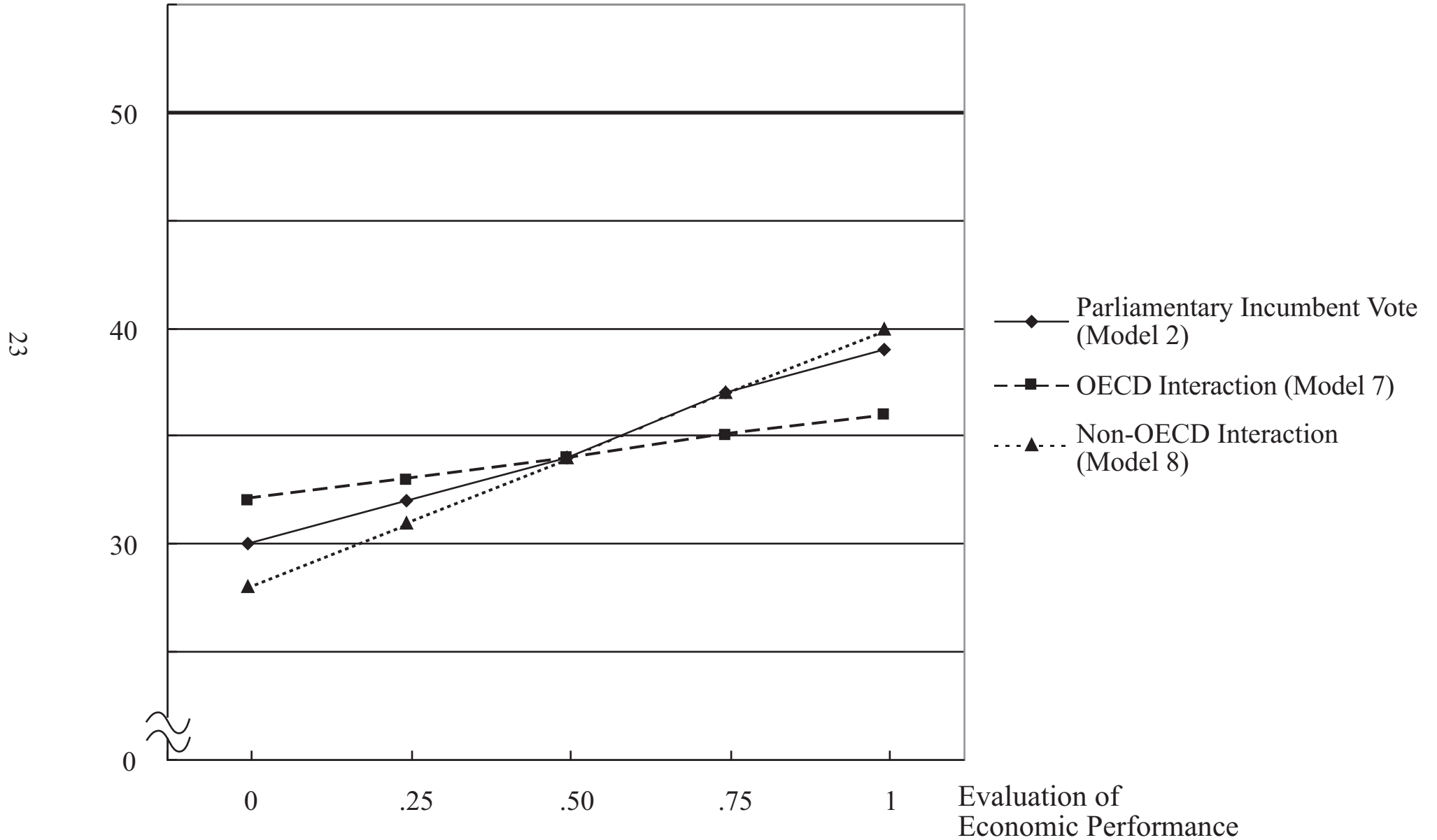


Table 1: Macro Classifications of Elections in the Data Set

Country/Region	Election Date	Vote Choice (x:reported, X:used)			Institutional Classification for Analysis						Economic Development				
		Presidential	Parliamentary		Presidential vs Parliamentary		Electoral System				OECD		Non-OECD		
			Party List	Candidate	Presidential	Parliamentary	Plurality	MMM	MMP	PR	Old	New			
Canada, Non-Quebec	97.06.02			X		x	x					x			
Canada, Quebec	97.06.02			X		x	x					x			
Czech	96.05.31		X			x					x		x		
Denmark	98.03.11		X			x					x	x			
West Germany	98.09.28		x	X		x					x	x			
East Germany	98.09.28		x	X		x					x		x		
Hungary	98.05.10		X	x		x					x		x		
Israel	96.05.29	X	X			x					x			x	
Japan	96.10.20		x	X		x					x	x			
Korea	00.04.13			X	x						x		x		
Mexico	97.07.06			X	x						x		x		
Mexico	00.07.02	X		X	x						x		x		
Netherlands	98.05.06		X			x					x	x			
New Zealand	96.10.12		X	x		x					x	x			
Norway	97.09.15		X			x					x	x			
Poland	97.09.21		X		x						x		x		
Romania	96.11.03	X	X		x						x			x	
Russia	99.12.19		X	x	x						x			x	
Russia	00.03.26	X			x						-	-	-	-	x
Slovenia	96.11.10		X		x						x			x	
Spain	96.03.11		X			x					x	x			
Spain	00.03.12		X			x					x	x			
Sweden	98.09.20		X			x					x	x			
Switzerland	99.10.24		X		x						x	x			
Taiwan	96.03.12	X		X	x						x				x
Thailand	01.01.06		X	x		x					x				x
Ukraine	98.03.29		X		x						x				x
Great Britain, without Scotland	97.05.01			X		x	x					x			
Great Britain, Scotland	97.05.01			X		x	x					x			
USA	96.11.05	X		X	x		x					x			

24

\* Israeli prime ministerial votes are treated as 'presidential votes' in the analysis. (Note continues to the next page.)

Table 1: Macro Classifications of Elections in the Data Set (Note continuing from the previous page)

- \* The vote choice to be used for parliamentary elections are determined by the following rules (x or X indicate that corresponding vote information is supplied in the data set, X represents the vote information used in the analyses):
  1. For the pure PR elections, "Party List" votes are used;
  2. For the pure plurality elections, "Candidate" votes are used; and
  3. For the mixed-member electoral systems, when only one piece of the vote information is available, that information is used; when both "Party List" and "Candidate" votes are available, the vote information that exhibits higher positive correlation with the main independent variable (i.e. the evaluation of economic performance) is used.
- \* In this table, "Russia 1999" and "Russia 2000" appear to be two different data sets. But, they are parts of the same panel survey. In other words, respondents are identical for these two data sets. In order to avoid including the same respondents more than once in the analysis, I used only one of the appropriate data sets for the Russian sample.
- \* "MMM" and "MMP" represent "mixed-member majoritarian" and "mixed-member proportional" respectively. They are subtypes of mixed-member electoral systems. In my analysis comparing plurality and PR electoral systems, I have treated MMM as "plurality" system and MMP as "PR" system. See Shugart and Wattenberg (2001) for a definition and typology.

Table 2a: Political Parties in Power and Oppositions at Elections for the 24 Countries (Continued)

Country	Election Date	Political Parties	
		In Power*	Oppositions Considered for Like/Dislike
Canada	97.06.02	Liberal Pty	Progressive Conservative, New Democ. Pty, Reform Pty, Bloc Quebecois
Czech	96.05.31	Christian Democ. Union, Civic Democ. Alliance, Civic Democ. Pty	Czech Social Democ. Pty, Communist Pty of Bohemia and Moravia, Association for the Republic
Denmark	98.03.11	Social Democrat, (Social Liberal)	Conservative, Centre Democrat, Socialist People, Danish People, Liberal
Gernany	98.09.28	Christian Democ. Pty, Christian Social Union in Bavaria	Social Democ. Pty, Free Democ. Pty, Alliance 90/Greens, Pty of Democ. Socialism
Hungary	98.05.10	Hungarian Socialist Pty, Alliance of Free Democrats	Alliance of Young Democrats, Independent Smallholder's Pty, Hungarian Truth and Life Pty, Hungarian Worker's Pty
Israel	96.05.29	Avoda, Shas, Meretz	Likud, Mafdal
Japan	96.10.20	Liberal Democ. Pty, Social Democ. Pty, New Pty Harbinger	New Frontier Pty, Democ. Pty of Japan, Japan Communit Pty
Korea	00.04.13	Millenium Democ. Pty	Grand National Pty, United Liberal Democrats, Democ. Peoples Pty, New Korian Pty of the Hope, Democ. Liberal Pty
Mexico	97.07.06	Institutional Revolutionary Pty	National Action Pty, Democ. Revolutionary Pty, Labor Pty, Mexican Ecological Pty
Mexico	00.07.02	Institutional Revolutionary Pty	Labor Pty, Mexican Ecological Pty, Authentic Pty of the Mexican Revolution, Alliance for Change, Alliance for Mexico
Netherlands	98.05.06	Labor Pty, People's Pty for Freedom and Democracy, Democrats 66	Christian Democratic Appeal, Green Left, Socialist Pty
New Zealand	96.10.12	National	Labour, New Zealand First, Alliance, ACT, Christian Coalition
Norway	97.09.15	Labor	Socialist Left Pty, Christian People's Pty, Center Pty, Conservative Pty, Progress Pty
Poland	97.09.21	Democ. Left Alliance, Polish Peasant Pty	Union of Labor, Freedom Union, Solidarity Election Action, Movement for the Reconstruction of Poland
Romenia	96.11.03	(Democ. Pty), Romanian Pty of Scial Democracy, Nati'l Liberal Pty, (Nat'l Peasant and Christian Democ. Pty), Democ. Union of Hungarians in Romania, (Romenian Soc.Dem.Pty)	Romenian Pty for National Unity, Greater Romania Pty, Romenian Democ. Convention, Social Democ. Union

Table 2b: Political Parties in Power and Oppositions at Elections for the 24 Countries

Country	Election Date	Political Parties	
		In Power*	Oppositions Considered for Like/Dislike
Russia	99.12.19	Yedinstvo (Unity)	YABLOKO, Zhirinovskiy, Fatherland All Russia, Communist Pty of the Russian Federation, Union of Right Forces
Russia	00.03.26	Yedinstvo (Unity)	YABLOKO, Zhirinovskiy, Fatherland All Russia, Communist Pty of the Russian Federation, Union of Right Forces
Slovenia	96.11.10	Liberal Democ. Pty, Slovenian Christian Democrats	Slovenian People's Pty, Social Democ. Pty, United List of Social Democrats, Democratic Pty of Retired Persons
Spain	96.03.11	Partido Socialista Obrero	Partido Popular, Izquierda Unida, Convergencia i Unio, Partido Nacionalista Vasco, Coalicion Canaria
Spain	00.03.12	Partido Populaire	Partido Socialista Obrero, Izquierda Unida, Convergencia i Unio, Partido Nacionalista Vasco,
Sweden	98.09.20	Sweden's Social Democ. Worker's Pty	Left Pty, Center Pty, People Pty's Liberals, Moderate Rally Pty, Christian Democrats
Switzerland	99.10.24	Christian Democrats, Social Democrats, Swiss People's Pty	Freethinking Democrats, Liberal Pty, Green Pty
Taiwan	96.03.12	Nationalist Pty	Democ. Progressive Pty, Chinese New Pty
Thailand	01.01.06	Thai National Pty, Rassadorn Pty Justice and Freedom Pty, Democratic Pty, National Development Pty	New Aspiration Pty, Thai Love Thai Pty, Prachakornthai Pty
USA	96.11.05	Democratic Pty	Republican Pty, Reform Pty
Ukraine	98.03.29	(Agrarian pty of Ukraine), Rukh, People's Democ. Pty	Pty of Greens of Ukraine, Communist Pty of Ukraine, Socialist Pty of U, Peasants Pty of Ukraine
Great Britain	97.05.01	Conservative	Labour, Liberal Democrats, Scottish National Pty, Plaid Cymru

\* "Political parties in power" includes party (or parties) that held at least one cabinet position in the incumbent administration.

\* Parties in parentheses, i.e. ( ), have no party codes assigned in the data set. They, therefore, are not included in the analysis.

Table 3a: Incumbent Vote-Estimation Results, Logistic Regression (Continued)

Independent Variables	Model 1	Model 2	Model 3	Model 4
Satisfaction with Democracy	.328 .000	.251 .001	.319 .000	.319 .000
State of Economy	.591 .000	.477 .000	.592 .000	.592 .000
Evaluation of Economic Performance (EEP)	.783 .000	.552 .000	.601 .000	1.054 .000
EEP x Presidential			.453 .007	
EEP x Parliamentary				-.453 .007
EEP x Plurality Vote				
EEP x PR vote				
EEP x OECDs				
EEP x non-OECDs				
Feel Close to the Government Parties	1.064 .000	1.022 .000	1.064 .000	1.064 .000
Parties Like/Dislike (Government Parties - Opposition Parties)	.480 .000	.473 .000	.481 .000	.481 .000
Income	.057 .293	.059 .281	.058 .290	.058 .256
University Education	-.222 .000	-.237 .000	-.218 .000	-.218 .000
Country Dummies (Base: West-Germany)				
Canada	-.689 .000	-.646 .000	-.675 .000	-.675 .000
Quebec	-.231 .390	-.207 .436	-.221 .409	-.221 .409
Czech	.210 .162	.199 .178	.200 .181	.200 .181
Demark	-.537 .000	-.485 .001	-.531 .000	-.531 .000
East-Germany	-.120 .502	-.144 .414	-.133 .456	-.133 .456
Hungary	.102 .524	.085 .591	.096 .549	.096 .549
Israel	1.649 .000	.384 .015	1.637 .000	1.637 .000
Japan	1.088 .000	1.048 .000	1.085 .000	1.085 .000
Korea	.085 .581	.050 .742	-.152 .390	-.152 .390
Mexico 97	.104 .522	.064 .691	-.123 .500	-.123 .500
Mexico 00	-.468 .004	-.268 .092	-.699 .000	-.699 .000
Netherlands	1.314 .000	1.360 .000	1.334 .000	1.334 .000
New Zealand	-.674 .000	-.622 .000	-.664 .000	-.664 .000
Norway	-.950 .000	-.851 .000	-.927 .000	-.927 .000
Poland	.629 .000	.619 .000	.391 .040	.391 .040
Romenia	-.435 .004	-.576 .000	-.634 .000	-.634 .000
Russia 99	- -	-1.109 .000	- -	- -
Russia 00	1.757 .000	- -	1.517 .000	1.517 .000
Slovenia	1.175 .000	1.107 .000	.968 .000	.968 .000
Spain 96	.105 .505	.081 .599	.092 .557	.092 .557
Spain 00	-.111 .476	-.059 .701	-.095 .540	-.095 .540
Sweden	-.319 .031	-.294 .044	-.310 .036	-.310 .036
Switzerland	1.792 .000	1.818 .000	1.524 .000	1.524 .000
Taiwan	1.417 .000	.822 .000	1.250 .000	1.250 .000
USA	.886 .000	.538 .000	.641 .000	.641 .000
Ukraine	-.699 .000	-.796 .000	-.889 .000	-.889 .000
Great Britain	.286 .093	.318 .059	.300 .077	.300 .077
Scotland	-.928 .001	-.881 .002	-.912 .002	-.912 .002
Thailand	1.459 .000	1.393 .000	1.437 .000	1.437 .000
Constant	-2.324 .000	-2.075 .000	-2.225 .000	-2.225 .000
Percent Predicted Correctly	80.9%	80.9%	81.0%	81.0%
N	27,692	27,647	27,692	27,692

In each model, the left column lists logistic regression coefficients, and the right column lists their probability of being different from zero by chance.

Table 3b: Incumbent Vote-Estimation Results, Logistic Regression

Independent Variables	Model 5	Model 6	Model 7	Model 8
Satisfaction with Democracy	.251 .001	.251 .001	.254 .001	.254 .001
State of Economy	.481 .000	.481 .000	.471 .000	.471 .000
Evaluation of Economic Performance (EEP)	.728 .000	.335 .007	.224 .111	.728 .000
EEP x Presidential				
EEP x Parliamentary				
EEP x Plurality Vote	-.393 .015			
EEP x PR vote		.393 .015		
EEP x OECDs			.504 .003	
EEP x non-OECDs				-.504 .003
Feel Close to the Government Parties	1.021 .000	1.021 .000	1.021 .000	
Parties Like/Dislike (Government Parties - Opposition Parties)	.473 .000	.473 .000	.471 .000	.471 .000
Income	.058 .287	.058 .287	.052 .339	.052 .339
University Education	-.237 .000	-.237 .000	-.242 .000	-.242 .000
Country Dummies (Base: West-Germany)				
Canada	-.417 .040	-.417 .040	-.657 .000	-.657 .000
Quebec	.017 .951	.017 .951	-.217 .416	-.217 .416
Czech	.208 .162	.208 .162	.208 .161	.208 .161
Denmark	-.492 .001	-.492 .001	-.489 .001	-.489 .001
East-Germany	-.132 .456	-.132 .456	-.133 .453	-.133 .453
Hungary	.292 .105	.292 .105	.090 .571	.090 .571
Israel	.393 .014	.393 .014	.640 .000	.640 .000
Japan	1.255 .000	1.255 .000	1.050 .000	1.050 .000
Korea	.254 .144	.254 .144	.055 .715	.055 .715
Mexico 97	.260 .148	.260 .148	.075 .642	.075 .642
Mexico 00	-.069 .701	-.069 .701	-.258 .104	-.258 .104
Netherlands	1.342 .000	1.342 .000	1.342 .000	1.342 .000
New Zealand	-.633 .000	-.633 .000	-.630 .000	-.630 .000
Norway	-.875 .000	-.875 .000	-.870 .000	-.870 .000
Poland	.621 .000	.621 .000	.620 .000	.620 .000
Romania	-.543 .000	-.543 .000	-.365 .027	-.365 .027
Russia 99	-.906 .000	-.906 .000	-.851 .000	-.851 .000
Russia 00	- -	- -	- -	- -
Slovenia	1.131 .000	1.131 .000	1.332 .000	1.332 .000
Spain 96	.096 .546	.096 .546	.093 .551	.093 .551
Spain 00	-.074 .632	-.074 .632	-.073 .636	-.073 .636
Sweden	-.304 .038	-.304 .038	-.303 .038	-.303 .038
Switzerland	1.800 .000	1.800 .000	1.798 .000	1.798 .000
Taiwan	.977 .000	.977 .000	1.005 .000	1.005 .000
USA	.751 .000	.751 .000	.539 .000	.539 .000
Ukraine	-.631 .001	-.631 .001	-.597 .002	-.597 .002
Great Britain	.543 .005	.543 .005	.304 .071	.304 .071
Scotland	-.652 .029	-.652 .029	-.896 .002	-.896 .002
Thailand	1.574 .000	1.574 .000	1.613 .000	1.613 .000
Constant	-2.171 .000	-2.171 .000	-2.162 .000	-2.162 .000
Percent Predicted Correctly	80.9%	80.9%	80.9%	80.9%
N	20,947	20,947	20,947	20,947

In each model, the left column lists logistic regression coefficients, and the right column lists their probability of being different from zero by chance.