# Testing the Interaction between Economic Evaluations and Political Knowledge：A Case Study of Taiwan，Japan，and Great Britain 

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#### Abstract

In their AJPS article and following research, Gomez and Wilson (2001, 2003, 2006) proposed an economy voting model that incorporated the level of knowledge regarding national politics, arguing that better-informed people are more likely to use pocketbook evaluations in their decisions to oppose or support the government. One of their premises is that economic voting prevails in every democracy. Comparing established single-member districts (SMD) and newly-adopted ones, we assume that economic voting is more important in long-term single-member districts because voters may hold the incumbent party accountable for economy. However, we are skeptical about the effect of sophistication on economy voting due to the fact that sophisticated voters may not necessary have more specific information regarding economy than others.

Since Gomez and Wilson $(2001,2003,2006)$ have analyzed economy voting in American presidential and congressional elections and the legislative elections of Canada, Mexico, Hungary and Taiwan, this paper will focus on the candidate districts in the mixed-member majoritarian (MMM) system and compare them with the SMD system. Our theory is that the electorate needs time to learn how the SMD system works in which the incumbent party could be punished for bad economic situation. We choose to examine the 2008 legislative election in Taiwan and 2005 House of Representative election in Japan. Moreover we compare the results with the 2005 parliamentary election of Great Britain. The evidences do not find strong support for Gomez and Wilson's $(2001,2003,2006)$ theory of heterogeneous attribution, but confirm the general claim that voters respond to economic situation, particularly in the SMD system.


## 1. Introduction

Gomez and Wilson (2001) proposed an economy voting model that incorporated
the level of knowledge regarding national politics, arguing that better-informed people are more likely to use pocketbook evaluations in their decisions to oppose or support the incumbent party. They tested their theory of heterogeneous attribution on the 1992, 1996, and 1998 American presidential elections. Later, they extended their theory to the 1998 American congressional election. Their latest article titled "Cognitive Heterogeneity and Economic Voting: A Comparative Analysis of Four Democratic Electorates", in which Gomez and Wilson (2006) tested their theory using data from the legislative elections of Canada, Mexico, Hungary and Taiwan. Their main purpose is that, "to examine the robustness of our theory in the face of all of these variations." (p. 128) Gomez and Wilson (2006) found the significant effect of political sophistication on pocketbook economic voting in Canada and Mexico, but they failed to confirm their hypothesis in Hungarian and Taiwanese cases.

According to Gomez and Wilson (2006), their selection of these four cases is based on the criteria of institutional diversity and level of democratization. Among these four cases, only Canada and Hungary are using the parliamentary system, while Hungary's president is elected by the members of National Assembly and the prime minister is the leader of the executive branch. Both Mexico and Taiwan use the presidential system; the president and Congress are elected separately. In other words, Gomez and Wilson (2006) intentionally included both parliamentary systems and presidential systems. However, their theory only held in one country of each type of government systems.

The major argument of Gomez and Wilson’s $(2001,2003,2006)$ series of articles reviewed aforementioned is that economy voting is generalizable across individuals but level of sophistication decides whether personal finance or national economy would be attributed to the incumbent party. Sophisticated people tend to hold the government accountable for their personal economic situations, because their cognitive integration allows them to trace personal matters to distal government. Political sophisticated are able to find the linkage between complicated economy activity and their pocketbook. Instead, less-informed voters would commit sociotropic economic voting because they seek congruence between two distal matters: national economy and government. These individuals may attribute responsibility for the national economy to the incumbent party.

This paper do not run against Gomez and Wilson's $(2001,2003,2006)$ theory of heterogeneous attribution, but argue that different election and government systems may lead to slightly different attribution process from what Gomez and Wilson (2006) conceptualized. To be more precisely, the SMD system induces voters to focus on the comparison of the incumbent party and the main opposition party, which encourages economy voting. However, the legacy of multi-member district system may continue
to diminish the accountability of representatives in the SMD system because particular interests are emphasized in multi-member districts because candidates are faced with intra-party competition. Gomez and Wilson's (2006) findings may only hold in the SMD with two-party system.

## 2. Economic Voting and Accountability

In the 1970s, Kramer (1971) argued that a party's vote share represents a sum of three parts: party identification, past economic performance and incumbent advantage, and error term. He found that change in real personal income during the election year will explain more than half of variation in the vote. Since then, political scientists have developed a handful of models explaining or even predicting electoral outcomes. Tufte (1978) provided an engaging analysis of economic effects on congressional voting. His analysis shows that presidential popularity along with yearly change in real income per capita account fit the election results from 1948 to 1976 very well. Erikson (1990), however, rebutted prior research, demonstrating that the effect of economy on the midterm vote is not at a level of statistical significance when controlling for the vote in the prior presidential election. Regarding the presidential election, scholars presented empirical evidences of impact of economic conditions on voting behavior (Fair 1978; Hibbing and Alford 1981; Erikson 1989; Lewis-Beck and Rice 1992; Rosenstone 1983; Abramowitz 1996). In addition to voting, MacKuen, Erikson, and Stimsom (1989) regressed presidential approval on political events and consumer sentiment, concluding that approval is a function of economic evaluation. In short, aggregate-level analysis considers both short-term economic conditions and long-standing "normal" vote, and the implication is that voters respond to economic fluctuation linked to the government.

Individual-level analysis of election not only tries to replicate the findings from the aggregate-level research of economic voting, but also clarifies the mechanism of economy and politics. Kinder and Kiewiet (1981) provided a theoretical foundation for pocketbook and sociotropic voting. They argued that personal finance may serve the shortcut to costly information, but sociotropic voting does not place higher informational demand on voters. They claimed that, "Rather, voters must only develop rough evaluations of national economic conditions, and then credit or blame the incumbent party accordingly." (p. 132) Kinder and Kiewiet’s (1981) findings support the claim that personal economic experiences are not politically important. Feldman (1982) suggested that pocketbook voting only occurs among people who hold economic individualism. Fiorina (1978) endorses the retrospective voting theory that the incumbent president's party vote is a function of individual's personal income. Markus (1988) employs a pooling of National Election Studies survey data from 1956
to 1984, finding that both the aggregate-level economic indicator and personal finance are significant predictors of presidential voting choices. Nadeau and Lewis-Beck (2001) emphasized the influence of incumbency in the election; retrospective pocketbook voting is likely to happen when the incumbent president is running the election.

To summarize, individual-level analysis assumes that judgment on personal financial situation cuts information and decision-making costs so that retrospective voting is a linkage between the incumbent government and public preferences. National economic situations may not demand more information than personal finance because voters can make rough evaluation of national economy. Duch and Stevenson (2008) also found that citizens possess information regarding macro economy through their content analysis. Instead, personal finance may invoke the responsibility that the incumbent government bears on.

Prior research of economic voting implies that the president is held accountable for the national economy, thus voters who are not satisfied with the national economy would send a signal on the president's performance. In some senses, congressional elections are characterized as a referendum on the president (Kernell 1977). That makes congressional elections national races between political parties, instead of local contests. As Gomez and Wilson $(2003,2006)$ among others perceive, economic conditions, national or personal, are strong predictors of individual voting decisions.

Economic performance is one of the grounds on which citizens punish the government (Bloom and Price, 1975; Fair, 1978; Tufte, 1975; Kinder and Kiewit, 1979; Miller and Wattenberg, 1985; Markus, 1988; Abramowitz, Lanoue, and Ramesh, 1988; Erikson, 1989) Voters may abandon the ruling party if they are not satisfied with their economic conditions or national economy. Slomczynski, Shabad, and Zielinski (2008) showed that the individual politicians would be punished if the president's party fails to address the unemployment problem in the legislative district. In general, government and politicians are held accountable for economic conditions.

Despite that raw incumbent advantage is measured by the dummy variable of the incumbent president, Kramer (1971) acknowledged the deviation of individual races from the national pattern. However, the underlying rationale of economic voting is Downsian democratic decision rule in which the relatively better party platform will win the majority (Downs 1957). The past economic performance, implicitly measured by the president's performance, may serve to reduce the information demand placed on the rational voters, which in theory makes party voting more plausible. Fiorina (1978), Kinder and Kiewiet (1981), Markus (1988), and Nadeau and Lewis-Beck (2001) also set up their individual-level economic voting model in such a fashion.

Although the economic voting literature treats congress members as party team
members, and the "governing" team should take on the responsibility of past economic performance as a whole, lack of unified cross-national survey data refrain us from investigating the effects of candidate factors in this research. The next section will take the comparison of election systems into account.

## 3. Comparative Perspective

Every nation is a context, and studying a country entails contrasting one context with another (Kohn, 1987). The theoretical significance of theory defined in terms of specific measurement can be tested through comparative descriptive statements or a sophisticated model (Przeworski and Teune 1970). Comparative research on political parties has already shown that government structure and election systems condition party development (Schattscheider 1942; Epstein 1967; Asher and Richardson 1977).

Scholars revealed the institutional effects on political behavior, yet they have not considered the political institutions as a systematic variable. Cain, Ferejohn, and Fiorina (1997:205) found that, "not only have congressmen managed to separate themselves from Congress, but they have largely managed to separate themselves from the success and failures of the president as well." However, their English counterparts’ electoral fates are more strongly tied to the Prime Minister. Why is it the case? Cox (1987) explained that English parties became more centralized to respond to enormously increase of voters in the late $19^{\text {th }}$ century. Party discipline in the cabinet followed the decline in the personal vote. Although they hesitated to claim the causality relationship between personal vote and political system, Cain, Ferejohn, and Fiorina (1997) suggested that the level of centralization of policy making influences the scale of personal vote.

Like Great Britain, the majority party in the House of Representative formed the cabinet government in Japan. However, the medium-sized multi-member election system that functioned between 1950 and 1993 permitted the tendency of decentralizing policy-making to interest groups and locality. Richardson and Flanagan (1984) and Richardson (1997) suggested that Japanese parties are fragile coalitions of party factions, and not able to articulate social interests. Richardson (1997) found the local disagreements with the national leadership, internal fractures at all levels of the Liberal Democratic Party (LDP), generational divide in each party, and inter-ministry conflicts in the government. He concluded that, "The Japanese system makes it possible for election campaigns to be decentralized rather than centralized and for individual candidates to develop their own power bases and contacts with interest groups." (p.251) While Richardson (1988) found that party images and past voting behavior outweigh candidate recognitions and issue opinions, he insisted that,
"candidate-based choices have been resilient over time." (Richardson 1997:274)
Duch and Stevenson (2008) offered probably the most comprehensive context-based, comparative economic voting model so far. They drew their findings from 163 surveys in eighteen Western democracies. One of their arguments is that the magnitude of economic voting is larger under the unified government than under the divided government in the presidential system, and that the incumbent party of the single-party cabinet holds a larger share of economic votes than that of the coalition government. The contextual variation in administrative responsibility indeed accounts for the level of economic voting.

While they stress the role of sophistication, Gomez and Wilson (2006) also notice the influence of the system level. They assumed that the level of democratization weights in the influence of sophistication on attribution process; voters in the less democratic countries may not link their personal finance to government. According to their findings, voters will consider their government's responsibility for their personal finances and national economy only when party government is responsible.

## 4. Election Systems

Duverger (1954) pointed out the impact of electoral engineering on party systems through voting behavior. His theory has been tested and revised by numerous scholars (Rae 1971; Lijphart 1984; Taagepera and Shugart 1989; Katz 1997). One of the conclusions drawn from the literature is that the proportionality of electoral systems has a positive impact on one of the central features of party systems, the number of parties. It has been proved that the SMD voting system, used by the United States and Great Britain, consolidates two-party system .The corollary of this theory is that SMD systems encourage collective incentives and multi-member districts encourage individual incentives (Shvetsova 1995; Katz 1997; Samuels 2002).

The single non-transferable vote (SNTV) system is one of the semi-proportional formulas, using plurality rule and multimember districts. Each voter has only one vote, and each candidate's votes are added up to determine the election result. In SNTV, multi-member districts encourage parties to support more than one candidate, but the first-past-the-post rule leads to intra-party competition (Cox and Rosenbluth, 1995). Individual candidates receive incentives from SNTV to conduct candidate-centric campaigns because of the single-plurality rule (Shvetsova 1995). The SNTV system is arguably responsible for candidate-centered campaigns and factional politics in Japan prior to the 1993 electoral reform (Lin, 1996). To coordinate candidates and to reduce nomination error, the LDP divided particularistic resources among districts (McCubbins and Rosenbluth 1995; Cox 1997; Grofman 1999). Moreover, the SNTV
caused the coordination problem to opposition parties; the LDP was able to split the anti-LDP votes among several opposition parties (Reed and Shimizu 2009). The consequence of the SNTV system is that Japanese voters refer to candidates more than political party in structuring their voting choices (Rochon 1981).

Both SMD and SNTV provide individualistic incentives for candidates, but the fundamental difference between SMD and SNTV lies in the district magnitude. Because of the multi-member district, political parties tend to nominate more than one candidate in a typical district (Reed and Bolland 1999). SNTV allows voters to choose only one candidate among their partisans, so that candidates are encouraged to pursue a personal vote outside party organizations to win a plurality. In this regard, particularistic interests outweigh party labels in structuring voting choices. In the SMSP system, each political party nominates only one candidate in each district. For other things being equal, there is no intra-party competition that leads to candidate-centered campaigns in single-member districts (Cox and Rosenbluth 1995; Grofman 1999). ${ }^{1}$ With the same simple-majority rule, it is expected that the level of party voting is lower under SNTV than under SMD. Until 2008, Taiwan’s legislature was elected using the SNTV system, which is identical to Japan's old system (Cox and Niou 1994; Cox 1997). The SNTV system was cited for encouraging extreme candidates and local factions. The Legislative Yuan was composed of four parties in the 1990s.

During the 1990s, Italy, New Zealand, Japan, and some eastern European countries adopted a mixed-member electoral system (MMM), in which one tier allocates the seats based on the votes to individual candidates, and the other tier employs a proportional representation formula (Heron and Nishikawa 2001; Shugart and Wattenberg 2002). Faced with pressure from various civic groups, Taiwan's lawmakers decided to adopt the MMM system, in which 73 legislators are to be elected in single-member districts, 6 are to be elected in aboriginal constituencies, and the remainder (34) allocated proportionally to all parties that gain more than 5 percent of party list votes. Therefore, a voter has two ballots-one party list vote and one candidate vote, and they are counted separately. The new-adopted MMM system has forced many incumbent legislators of minor parties to switch to major parties; minor parties were nearly kept out of the campaign. ${ }^{2}$

[^0]Considering the differences in the type of election systems, we choose Taiwan, Japan, and Great Britain as our cases studies. Although Taiwan and Japan share the same electoral engineering, Japan adopted it earlier; there have been five general elections since the MMM was implemented in 1994. We anticipate that the legacy of SNTV system discourages emergence of two-party system, thus downsizing the importance of economic issue. Therefore, only the case study of Great Britain may display the economic voting and the influence of political knowledge on it.

## 5. Political Knowledge

Political knowledge is critical to democracy in that citizens should have a basic understanding of politics, such as political issues, political parties’ stands, and proposed alternatives (Berelson, Lazarsfeld, and McPhee 1954; Dahl 1989). With inadequate knowledge of politics, a citizen is not in a position to make sound judgments. Downs (1957) also put informed citizen as one of the preconditions of democracy.

Voters' lack of political knowledge is widespread and concerned in the western democracies (Campbell, Converse, Stokes, and Miller 1960; Converse 1964; Delli Carpini and Keeter 1991; Kinder and Palfrey 1993). The minimalism states that average citizens are ignorant about many issues (Luskin 1987). Scholars argue that citizens may rely on shortcuts provided by parties or elites if they lack factual knowledge (Berelson, Lazarsfeld, and McPhee 1954; Popkin 1991; Page and Shapiro 1992). Zaller (1992, 21) found that highly aware people are likely to receive information regarding candidates the incumbents and consequently have positive or negative considerations about them, which may in turn decide voting behavior.

Sniderman, Brody, and Tetlock (1991) questioned the minimalism and proposed that people not only possess information but also certain decision rules that dictate the reasoning of their choices. For instance, people who are sympathetic to blacks are likely to support the policy that helps blacks. They also pointed out that the well-informed voter tends to consider everything regarding the two candidates and the less well-informed voter tends to judge on the incumbent, who is responsible for the national economy. Their theory of information and choices actually inherits Downs' (1957) model in that people who lack information merely pay attention to the records of the governing party.

According to Converse (1964), political knowledge is product of ideology. The most widespread ideology is liberal-conservative continuum. If a citizen lacks knowledge or information, he may only realize simply or concrete objects. The less sophisticated objects convey less information and refer to fewer notions. Instead,
abstract, far-arching objects convey more information and less uncertainty about the label. Gomez and Wilson (2001) argued that Converse's (1964) theory falls short of considering congruence among objects; less sophisticated people would link national economy to national government because they are both remote from their daily life.

According to Gomez and Wilson (2006), heterogeneous attribution occurs when sophisticated people seek congruence between complicated matters and personal situations, and less sophisticated voters tend to tie distal matters together. According to Converse's (1964) ideology theory, however, sophisticated citizens may refer to liberal-conservative ideology when making decision. Based on those theories, we assume that political knowledge conditions the impact of economic evaluations on voting behavior, particularly in two-party systems. The long-term conceivable objects like political parties help citizens understand ideology. The mechanism is that sophisticated people possess liberal-conservative ideology that may be associated with economy policies. National economic performance is therefore more related to political knowledge in countries where political parties place themselves on the dimension of ideology. In countries where two parties are less ideological well-informed electorate may engage in pocketbook economic voting in that they employ their general information to make their judgment. Economic assessment is not constrained by liberal or conservative ideology. Instead, general information may assist well-informed people to evaluate the incumbent party's performance. Our hypothesis is that economy voting is more likely to take place in two-party systems like Taiwan and Great Britain. We also assume that Taiwanese voters tend to engage pocketbook voting and British voters are likely to conduct sociotropic voting.

## 6. Data, Models and Results

Three data sets are used and all of them contain political attitude variables, economic evaluation variables, and voting choices. For our analysis of the Taiwanese case, the 2008 legislative election (TEDS 2008L) will be examined. It is based on multistage area probability sample of approximate 1,200 and 1,900 residents. Both surveys are face-to-face interviews ${ }^{3}$. Our study of the 2005 Japanese House of Representative election makes use of a survey administered by Japanese Election Study (JES 3) ${ }^{4}$. We analyzed the seventh and eighth wave of the panel data. Last, in examining the 2005 General election of Great Britain, we rely on the election data from British Election Study (BES) ${ }^{5}$. It is a probability sample of approximate 4,161

[^1]respondents.
Like Gomez and Wilson's (2006), we treat the voting decision as a dichotomous choice between the incumbent party and other parties. Note that in the case of Taiwan the president's party, DPP, did not hold the majority of seats in the Legislative Yuan. We regard the coalition of the KMT and PFP that controlled the legislative body as the incumbent party in the 2008 Legislative election. Table 1 shows the frequencies and percentages of the voting choices in each country.

Table 1. Voting Choices in Taiwan, Japan, and Great Britain

|  | Taiwan 2008 | Japan 2005 | Great Britain 2005 |
| :--- | :--- | :--- | :--- |
| Incumbent party | $295(55.2)$ | $686(51.4)$ | $1,031(38.33)$ |
| Non-incumbent | $364(44.8)$ | $648(48.6)$ | $1,659(61.67)$ |
| parties |  |  |  |
| Total | 659 | 1,334 | 2,690 |

Data: TEDS 2008L, JES 3, BES

Because of the dichotomous choices, we use the logistic regression model to estimate the effect of the independent variables. The maximum likelihood estimate method (M.L.E.) will be used to estimate the coefficients. Because the M.L.E. estimates cannot be interpreted as the OLS model, we will graph the estimates and their standard errors to show the signs of the coefficients and whether they are statistically unequal to be zero ${ }^{6}$. Moreover, we are aware that the interaction between the level of political knowledge and economic evaluation may correlate with them, thus we may remove them if the interaction terms are not statistically significant. Therefore, we will estimate full and reduced models and present the estimates in the graphs.

## 7. Three Elections under Comparative Perspective

### 7.1. The 2008 Legislative Election, Taiwan

In the 2000 presidential election, Chen Shui-bian won the three-way race partly because James Soong broke away from the KMT that nominated Lien Chan. After the election, Soong founded the People First Party (PFP) and won 46 out of 225 seats in the 2001 legislative election. Since then, the KMT and PFP cooperated closely to confront with Chen's DPP and Taiwan Solidarity Union (TSU), founded by the former president, Lee Teng-hui. The KMT and PFP were called "pan-blue camp" because the

[^2]KMT's label is full of blue color, and the DPP and TSU were called "pan-green camp." The KMT and PFP endorsed Lien and Soong in the 2004 presidential election but lost it to Chen. Since Lien and Soong had been defeated by the DPP twice, Ma Ying-jeou, the current president, took over the KMT and most PFP legislators switched to it. After Soong lost the 2006 Taipei mayor election, Ma became the only legitimate pan-blue leader.

The 2008 legislative election was the first one held under the new electoral system in Taiwan. Before the election, the president's party, DPP, was mired by a series of scandals related to President Chen Shui-bian himself and his family members. Polls showed that the DPP was not very competitive in this election, largely because Chen Shui-bian was not popular. The long-term ruling party before 2000, KMT, successfully integrated with the PFP to challenge the DPP ${ }^{7}$. It accused the president's party of corruption and incompetent in dealing with cross-Strait relations related to economy. The two major parties’ battle left no space to PFP or TSU members.

Although the DPP held 89 out of 225 seats in 2004, it only won 13 out of 79 SMD seats with 40 percent of votes in 2008. The KMT won 61 district seats with 55 percent of vote shares. It is apparent that the KMT took advantage of the first-past-the-post rule, while the national trend favored the KMT. Both parties won almost identical vote shares in the parallel party-list district, which reflects the fact that most voters cast straight tickets (Tsai, Sheng, and Yu 2008). Without cooperation, small parties won less than 5 percent of votes and failed to be allocated any seat.

Because of adopting new electoral system, two-party system appears to gain its ground in Taiwan. Moreover, one of the main issues was economic development so that economic evaluations and their interaction with political knowledge should be significant predictors. In addition to these variables, we include demographic variables, party identification, Chen's popularity, self-identification as Taiwanese and Chinese, and independence-unification issue position in the full model. After estimating the full model, we omit the first order terms for economic evaluations and political knowledge variables.

Figure 2 presents the M.L.E. estimates and their standard errors. In the full model, party identification, self-identity with Taiwanese, and Chen's popularity have significant impacts on the probability of voting for the KMT. According to Gomez and Wilson's (2006) attribution theory, we expect to find the impact of the interaction terms. Since political knowledge and economic evaluations are not predictive of voting choices in the full model, the reduce model keeps the interaction terms and omit the first order terms. It is shown that the interaction between political knowledge

[^3]and pocketbook economic evaluation indeed affects voting choices; the larger the interaction term is, the small probability of voting for the KMT is. In other words, well-informed voters would vote for the DPP if their personal finance was getting better, which confirms Gomez and Wilson’s (2006) theory.


Figure 1. M.L.E. Estimates and Standard Errors of Legislative Voting Choices, Taiwan, 2008.

### 7.2. The 2005 House of Representative Election, Japan

In January of 2005, Prime Minister Koizumi announced that he will step down as late as September, 2006. Before then, he has been the president of the Liberal Democratic Party (LDP) and the Prime Minister since 2001. He led the LDP to win the election of the Upper House in the same year. After that, Koizumi called for privatizing postal services. His plot drew opposition inside and outside the LDP. In August of 2005, the bills related to postal privatization are voted down by the Upper

House．With high job approval rating，he dissolved the Lower House and called a snap general election in September．Koizumi forced several LDP party members who opposed postal privatization to leave，sending＂assassin＂candidates to their districts． The largest opposition party，the Democratic Party of Japan（DPJ），failed to align with the LDP splitters．Instead，the DPJ endorsed its own candidates so that Koizumi easily framed this election as＂pre－postal privatization＂against＂anti－postal privatization．＂ （Christensen 2006）Moreover，there were The LDP won 296 out of 480 seats，partly because it gained more votes in the urban area than before（浦島•菅原 2005）．The LDP also won more seat shares than vote shares in SMD districts；it won $47 \%$ of votes while it gained $73 \%$ of seats．（尾崎 2007，22）．Due to the postal privatization issue，two new parties were formed by the LDP splitters．Those small parties along with independents won only 73 out of 280 seats in SMD districts．

According to Wang，Huang and Kuo＇s（2009）findings，the popularity of Koizumi along with party identification largely determine voting behavior．Their two－level model did not find strong evidences that people are more likely to vote for the LDP＂assassin＂candidates．McElwain（2009）also found that the vote shares of LDP candidates were influenced by Koizumi＇s visits．Therefore，we anticipate that Koizumi＇s popularity would have substantial effect on voting behavior．Figure 2 shows the maximum likelihood estimates of two models．The full model includes every variable，but the reduced model excludes the level of political knowledge， sociotropic and pocketbook economic evaluations．


Figure 2. M.L.E. Estimates and Standard Errors of Voting Choices in the House of Representative Election, Japan, 2005

It is obvious that in both full and reduced models political knowledge, economic evaluations, and their interaction terms are not significant predictors of voting behavior in the 2005 House election of Japan. The LDP party identification has significant and positive impact on the likelihood of voting for the LDP. Voters' feeling about Koizumi also influences their voting choices. Moreover, our analysis shows that female voters tend to vote for the LDP.

Maeda (2009) argued that the strong party-centered campaign in 2005 could be more and more evident in the future elections. He showed the evidence that the LDP's vote shares in SMD are more and more influenced by its vote shares in the parallel party districts, controlling for the urbanization of districts. Christensen (2006), however, argued that Koizumi's platform and handpicking "assassins" attracted urban
voters. He also pointed out that DPJ may not allow the LDP to steal the agenda of reform once Koizumi steps down. According to our findings, the 2005 Diet election may unveil the era of two-party competition with one single issue, yet Koizumi’s personal charisma may downplay the role of economic situations related to government accountability.

### 7.3. The 2005 General Election, Great Britain

In the generation election of 2005, Prime Minister Tony Blair fought for a third term. Public anger over the Iraq war was the main issue in this election. Although Conservative Party leader Howard also supported the Iraq war, Blair's commitment to the war and his centrist stance on domestic issues, like privatization of some public services, has infuriated many supporters. But the Labor Party benefited from the Conservatives' even greater unpopularity.

Although Blair's Labor Party won the majority of seats as expected, it gained only 35.2 percent of popular votes. The Conservative Party and Liberal Democratic Party won 32.4 percent and 22 percent of votes respectively. While the Liberal Democrats tried to become the major opposition party, the SMD system seems to favor the Labor Party and Conservative Party in terms of translation of votes to seats. Both parties' votes are more and more concentrated in certain regions, while the Liberal Democrats are distributed more evenly (Curtice 2009). Therefore, two-party system remains solid in Great Britain.

Since the Labor Party represents working class, we expect that people of better social economic status may not vote for it. Moreover, Tony Blair's popularity and support for the war in Iraq was critical to the incumbent party, in addition to party identification and ideology. Both pocketbook and sociotropic economic assessment should be influential for voting behavior, and their interaction with political knowledge are also included in the full model. Figure 3 partially confirms our expectations. Regarding the key question about political knowledge and economic evaluations, the interaction term of sociotropic evaluations and political knowledge is predictive in the reduced model. This indicates that positive national economic evaluation increases the probability of voting for the incumbent party as individuals become well-informed. In the reduced model, moreover, the coefficient of political knowledge is significantly negative. It seems that well-informed people are not likely to support the incumbent party unless their national economic assessment improves. Sociotropic voting is only evident when the condition of economy is taken into account.


Figure 3. M.L.E. Estimates and Standard Errors of Voting Choices in the General Election, Great Britain, 2005

## 8. Conclusion

Our findings show that the less ideological political system like Taiwan may encourage well-informed citizens to generalize their personal finance matters to national government, and that long-term left-right party system, such as Great Britain, may induce the effect of political knowledge on economy voting. As for Japan, our analysis suggests that multi-party system may not lead the electorate to blame or reward the incumbent party for economic situation. As Richardson (1997) pointed out, decentralized and fragment party system hinders the governing party to bring up one single issue across districts. The legacy of SNTV remains an obstacle to government
accountability.
With strong semi-presidential system, it is not difficult for Taiwan's presidential party to form a coalition against the opposition coalition. Without historical social cleavage, small parties are not able to survive the parallel SMD and proportion-representation districts. On the one hand, two parties are ready to chase each other no matter who is the majority of the legislature or takes the presidency. On the other hand, they are both moderate on most issues. The limited constraint of ideology flows from the elite to the mass public; only well-informed people blame the party controlling the majority of the legislature for family finance. Less sophisticated people, we would argue, merely pay attention to district matters, candidates, or specific events.

Great Britain owns a typical two-party system on the liberal-conservative ideology. Parties cannot escape from the responsibility of economic situations, and ideology is not isolated from economic policies. In this case, well-informed citizens who also embrace ideological thinking tend to blame the government for national economy.

Our idea is combination of Gomez and Wilson's $(2001,2003,2006)$ and Converse's (1964) theories. It definitely needs more research before it turns to more theoretical. We will intend to cover Korea, Poland, and other semi-presidential systems to study economic voting, which may prove heterogonous attribution theory.

## Appendix

Coding of Key Variables

Economic votes
Taiwan (2008 legislative election)
"Would you say that over the past year, the state of the economy of Taiwan has gotten better, stayed about the same, or gotten worse?"
Gotten better=1, stay about the same=2, or gotten worse=3
"Would you say that over the past year, your own household's economic condition has gotten better, stayed about the same, or gotten worse?"
Gotten better=1, stay about the same=2, or gotten worse=3

Taiwan (2008 presidential election)
"Would you say that over the past year, the state of the economy of Taiwan has gotten
better, stayed about the same, or gotten worse?"
Gotten better=1, stay about the same=2, or gotten worse=3
"Would you say that over the past year, your own household's economic condition has gotten better, stayed about the same, or gotten worse?"
Gotten better=1, stay about the same=2, or gotten worse=3

Japan (1996)
"Would you say that over the past twelve months, the state of economy on Japan has gotten better, stayed about the same, or gotten worse?"

Gotten much better=1, gotten somewhat better=2, stayed the same=3, gotten somewhat worse=4, gotten much worse=5

## Great Britain (1997)

"Would you say that over the past twelve months, the state of economy on Japan has gotten better, stayed about the same, or gotten worse?"
Gotten much better=1, gotten somewhat better=2, stayed the same=3, gotten somewhat worse=4, gotten much worse=5

Political knowledge
Taiwan (2008 legislative election)
(Q1)Who is the current Vice President of our country?
(Q2)Who is the current President of the United States?
(Q3)Who is the President of the PRC?
(Q4)What body has the power to interpret the constitution?
(Q5)How many years is the term of the legislators elected this year?
(Cronbach's $\alpha=0.574$ )。

Japan (2005)
(Q1)Do you know what local government (the referendum) was held?
(Q2)What about others?

Great Britain (2005)
(Q1)Polling stations are closed at 10 P.M.
(Q2)Liberal Democrats favor privatization.
(Q3)Minimum voting age is 16 .
(Q4)Chancellor exchequer sets interest rates
(Q5)Labor policy states that university students pay 3000 pounds per year.
(Q6)Conservative policy states that (there should be) strict limits for asylum seekers. (Cronbach's $\alpha=0.516$ )。

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[^0]:    ${ }^{1}$ In some SMD systems, political parties use primary elections to decide their nominees, which may increase the intensity of intra-party competition. In some other countries, however, the nomination is not entirely opened to the public. Therefore, the SMSP system should have lower level of intra-party competition than the SNTV system.
    ${ }^{2}$ In the 2004 legislative election, the two major parties, Kuomingtang (KMT) and Democratic Progressive Party (DPP), won 89 out of 225 seats and the KMT obtained 79 seats respectively. In the 2008 legislative election, the KMT persuaded the People First Party (PFP), which won 34 seats in 2004, to cooperate because the PFP's support has been declined and lacked resources to run district candidates. The DPP's ally, the Taiwan Solidarity Union (TSU), ran some candidates in the

[^1]:    ${ }^{3}$ Data analyzed in this article were from Taiwan's Election and Democratization Studies 2008L. The coordinator of multi-year project TEDS is Professor Chi Huang (National Chengchi University). The principal investigator of TEDS2008L is Yun-han Chu (National Taiwan University). More information is on TEDS website (http://www.tedsnet.org).
    ${ }^{4}$ JES 3 data is available at http://www.coe-ccc.keio.ac.jp/data_archive_en/index.html.
    ${ }^{5}$ BES data is available at http://www.essex.ac.uk/bes/.

[^2]:    ${ }^{6}$ Certainly, if there one only one or two independent variables in the logistic regression model, it is less difficult to compute the probability of the event occurs. However, the logistic district form is non-linear so that the effects of the explanatory variables are not linear.

[^3]:    ${ }^{7}$ The KMT left four slots for the PFP in its 34 party-list. Based on the election result, it was allocated 20 seats and three of them were recommended by the PFP.

