Economic Performance and Accountability: The Revival of the Economic Vote Function[1]

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Abstract

The purpose of this paper is to investigate the relationship between the probability of reelection of the incumbent party and its economic performance. Contrary to Cheibub and Przeworski (1999) I will show that the vote does function as an instrument of accountability for economic outcomes. Powell and Whitten (1993) argued that only in institutional contexts where clarity of responsibility is high, would one be able to observe economic voting. Although I find an impact on the electoral outcomes by ideological and institutional variables, this effect is mixed. Independent of the clarity of responsibility context, I find that the better the economic performance of the incumbent party, the higher its probability of reelection. This relationship holds for parliamentary and presidential regimes. The size of the effects of economic growth rates and inflation on the incumbent's probability of reelection will depend on whether it was inflation or growth the major economic problem faced by the incumbent party. But no matter the size of the effect, bad performance in any of these variables will be punished. Voters, contrary to conventional wisdom, are sophisticated when judging economic performance. When necessary, they take the past into account when judging incumbent's performance. Other times, they vote myopically. The difference between short versus long-term judgments depends on what type of economic variable they are evaluating.

I Introduction

In the last half of the twentieth century, following the works of V.O. Key (1966), Anthony Downs (1957), and numerous other authors, the scholarship on electoral studies has been focused on verifying empirically what we have known intuitively for quite some time: the economic voting hypothesis.[2] "When economic conditions are bad, the citizens vote against the incumbent party".[3]

Although survey research and case studies have successfully established a stable relationship between economic performance and government popularity or voter intent, aggregate cross-national analyses have failed to find a robust link between electoral and economic outcomes.[4] Some scholars argue that this result is due to the fact that there is no relationship between the economy and electoral outcomes (Cheibub and Przeworski 1999; Paldam 1991). Others, contend that we will only observe economic voting contingent on some institutional and political variables (Anderson 2000; Powell and Whitten 1993; Stokes 2001). Finally, some academics do not dispute the relationship between elections and the economy, but they disagree on how voters judge the economy. Some consider voters as completely myopic- or at least that is how they portray them in their econometric models (Kramer 1971; Paldam 1991). Others suggest that voters are more sophisticated and base their voting decision by taking into account longer periods of information (Peltzman 1990). And still others approach economic voting with a Bayesian framework and contend that voters' vision will depend on how much "noisiness" or economic instability they

[2] The scholarship on this subject is substantial. In particular, see Kramer (1971), Hibbs (1982), Lewis-Beck (1980,1988), Fiorina (1978, 1981), Kinder and Kiewiet (1979), Peltzman (1990), Paldam (1991), Remmer (1991), Powell and Whitten (1993), and Przeworski and Cheibub (1999). The economic voting hypothesis is also known as the responsibility hypothesis (Nannestad and Paldam,1994).
[3] Lewis-Beck (1988)
[4] Two examples of failed attempts to find a robust and stable economic function are the works of Paldam (1991) and Przeworski and Cheibub (1999)

experienced in the past. Thus, they will be short sighted if they experienced a lot of economic variance, i.e. economic instability in the past, and longer sighted if this variance was low (Magaloni 1997).

This paper seeks to show that there is in fact an economic vote function. I maintain that earlier cross-national studies have had problems finding that relationship because either the econometric models or the theory were incorrectly specified. I also suggest that economic voting will be observable even without taking into consideration the political context. However, the political context will have an effect on the incumbent probability of reelection.

The interest in finding an economic vote function stems from the implications that its non-existence would have for democracy. If voters do not punish bad economic performance through their ballots, then office holders would have little incentive to invest in prudent economic management. Under this scenario, the probability of reelection for the incumbent party would not depend on its economic performance. This is incompatible with one of the main characteristics of democracy: accountability. In a democracy, citizens can hold political leaders accountable through their vote. If voters are satisfied with the government's economic performance they can choose to reelect it; otherwise, they can vote for the opposition with the intent of punishing the incumbents for a bad economic performance. The vote, as an accountability instrument, creates the proper incentive for office-seeking politicians to implement sound economic policy. The aim of this paper is to determine whether such a vote function exists. Specifically, I will try to show that there is a relationship between the incumbent party's economic performance and its probability of reelection, and that this relation holds for both parliamentary and presidential regimes.

II Literature Review

The pioneers of the economic vote theory were Anthony Downs (Downs 1957) and V.O. Key (Key Jr. 1966). Both of them suggested the idea of a retrospective vote, where citizens vote for the party that gives them the highest income utility. The main difference between the Downs' model and Key's model is that the first incorporates prospective and comparative elements. Downs' model contends that the individual will make a comparison between the utility he gained when the incumbent party was in office and the expected utility of the opposition, had it been in office. By contrast Key's model is simply retrospective. Voters evaluate the incumbent economic performance and punish or reward him at the ballots. If the voter thinks that the incumbent performance was bad, he punishes him by voting for the opposition, else he rewards him with his vote.

There have been numerous works that have attempted to verify (empirically) the economic voting hypothesis. I will only mention some of the aggregated data time series cross-sectional models. One of the first studies that used aggregated data was Kramer's (1971). Kramer studied 35 national legislative elections that took place from 1896 through 1964 in the United States. He found that candidates from the incumbent party won more votes as the GDP per capita increased, while opposition candidates benefited when GDP per capita lowered. This study successfully verifies the economic voting theory, but it does so only with one country (Kramer 1971). Similar studies that have analyzed the economic vote function with larger samples have not been as successful.

One failed attempt to find an economic vote function cross-nationally was the one made by Martin Paldam (1991). He studies the vote function in 17 industrialized democracies over a period of 38 years. In total, he studies 197 elections. Paldam uses the first differences method, i.e. he measures the change in the percentage of votes won by the

incumbent party, controlling for the change in the rates of unemployment and inflation (his unit of analysis is one year). The results he finds are not encouraging: his coefficients appear to be statistically insignificant, and sometimes their signs are in the incorrect direction (Paldam 1991)

Two years later, Bingham Powell and Guy D. Whitten (1993) expanded Paldam's model and incorporated political and institutional variables that may affect the voter's capacity for attributing responsibility for economic outcomes. They argue that the economic vote function will only be seen in high clarity of responsibility contexts, where voters have a clear sense whom to punish or reward for the economic performance. Their study covers 100 national elections in 19 industrialized democracies. They find a relationship between economic performance and electoral outcomes only when controlling for the institutional context (Powell and Whitten 1993).

Finally, Adam Przeworski and José Antonio Cheibub (1999) presented the most recent study of economic voting. Their work is novel in three respects: (a) they study not only industrialized democracies, but all democracies in the world; (b) instead of using the change in votes won by the incumbent party as the dependent variable, they use the probability of survival (in office) of the incumbent president or prime minister, and (c) they study whether the economic vote function is the same in presidential and parliamentary regimes. Even with all these novelties, they fail to find a relationship between economic performance and electoral outcomes (no matter the regime type and the institutional context). Thus, they conclude that elections are not useful for inducing the government to perform well in the economic arena. They also argue that the vote does not function as an accountability instrument because many times voters are not able to elect their representatives. In parliamentary regimes, they contend, a high percentage of the changes in

the head of government are due, not to elections, but rather to votes of no confidence or breakups in the governing coalition[5]. On the other hand, presidential systems that do not allow consecutive reelection of the president leave the voter without the opportunity to punish or reward the head of government [6](Cheibub and Przeworski 1999).

In the following sections I will show that the previous results are wrong, and that an economic vote function does exist, both in presidential and parliamentary regimes.

Is the economic vote function just a myth?

One reason why there is an interest in demonstrating the existence of an economic vote function stems from the implications that the absence of it has for democracy and on the usefulness of the vote as an instrument of economic accountability. The main function of the vote is to enable citizens to hold the government responsible for its actions (Cheibub and Przeworski 1999). The vote, as an accountability instrument, also creates the incentives for the incumbent government to perform well, at least in economic matters. If the economic performance of the incumbent party is bad, voters have the power to punish the government by voting for the opposition. In this context the party in government runs the risk of losing office. If, on the contrary, voters are happy with the economic performance of the incumbent party they can reward it by reelecting it.

If one of the functions of the vote is to serve as an accountability instrument, why has it been so difficult to observe a stable and robust relationship between economic performance and electoral outcomes? Powell and Whitten suggest that earlier models of

[5] They found that between 1950 and 1990, forty eight percent of the changes of Prime Minister were due not to elections but to votes of no confidence or falls in the governing coalition.
[6] Still even when they analyze only cases where reelection is possible, they do not find a relationship between the economy and the electoral outcomes.

economic voting failed because they did not take into account the political, ideological and institutional variables. Specifically, they argue that it is imperative to consider the clarity of responsibility context generated by specific institutional arrangements:

> *The logic of clarity of responsibility is that the effect on economic voting is interactive. That is, where clarity of responsibility is high, the economic variables should have the predicted effects: GDP growth should help all governments; higher inflation should hurt rightist governments… higher unemployment should hurt leftist governments…But where clarity of responsibility is low, the economic factors will be blurred.* (Powell and Whitten, 1993, 405)

Although I agree with PW[7] that the institutional and ideological arrangements may have an impact on the economic vote function, the model I present suggests that these effects are not necessary to observe the economic vote function; and even if the clarity of responsibility context has an effect on the vote, it may not always run in the same direction predicted by Powell and Whitten. A low clarity of responsibility context may blur the voter's vision and benefit the incumbent party by saving it from electoral punishment for bad economic performance, but it can also hurt the government by withholding the electoral rewards for a good economic performance (i.e. the incumbent party may not win additional votes for a good economic performance under a context of low clarity of responsibility). In fact, this last effect may be stronger than the first effect, making a low clarity of responsibility context a bad situation for the incumbents. Additionally, there is always the possibility that some institutional arrangements that induce high clarity of responsibility benefit, rather than harm (in an electoral sense), the incumbent party. Thus, it is not yet clear whether some institutional contexts benefit or harm the incumbent party. Institutional arrangements may have ambiguous effects on the economic vote function.

[7] From now I will refer to Powell and Whitten as PW and to Cheibub and Przeworski as CP.

Another weakness of the PW and CP models is that their economic variables may not be correctly specified. Both works measure the GDP or GDP per capita growth considering first differences. Their measure takes into account only short periods of time. In this sense it is a myopic measure, and this type of specification may be biasing their results.

Additionally, even though PW stress the importance of the clarity of responsibility context, they do not take into account all the institutional variables that may affect the clarity of responsibility context. One variable that may play an important role in the economy and on the clarity of responsibility context is the degree of central bank independence. The intuition behind this variable is that the more independent a central bank is, the less clear it is for the voter whom he should hold responsible for a bad inflation performance. Who is responsible for high inflation, the government or the independent central bank?

Finally, the ideology results that PW present, go against Kiewiet's (1983) argument that under high inflation the probability that a right wing party gets elected rises. This suggestion stems from the idea that voters are more likely to elect the party that they believe is more competent in solving the most sever economic problem. In high inflation contexts, right parties have a reputation for being the more competent, because their agenda prioritizes lowering the inflation rate. However, in recent times it has been suggested that as a result of the financial globalization, leftist parties have become more orthodox in handling the economy. This means that they are also interested in achieving lower rates of inflation. My hypothesis (following the argument of Downs and Key that the vote is not ideological but economic) will be that no matter the ideology of the incumbent party, bad economic performance will always be punished.

III Model Specification

The purpose of this paper is to present a model that improves on some of the weak points of recent models of economic voting. The ultimate goal is to test whether economic performance has electoral repercussions[8], and thus, whether the vote functions as an instrument of accountability, at least where economic matters are concerned. I will argue that earlier models failed in this task, not because they did not take into account the institutional context, which is important, but because they were incorrectly specified.

The main hypothesis of this paper is:

The probability of reelection of the incumbent party decreases when the economic situation deteriorates, and increases when the economic performance is "good". I will describe in detail what I mean by good and bad economic performance when I explain the economic variables of the model.

My model incorporates executive elections, for president or Prime Minister, in 41 electoral democracies[9] from 1980, or since the country had its first democratic elections after transitioning from an authoritarian regime or since I had economic data, through 1998.[10] The countries under study are:

[8] I will suggest that even though the institutional context is important, the relationship between economic performance and vote is sufficiently strong to be observed, even without taking into account the political context.

[9] The criteria I used to classify my cases as electoral democracies is the one established by Freedom House. Freedom House uses as 1 to 7 scale, where 1 represents the most free, and 7 the least free (this scale is derived form the average each country gets with respect to its political and civil rights) The index is as follows: free (1-2.5), partially free (3-5.5), and not free (5.5-7) In my sample I only incorporated free countries, and in some cases countries that in one point of their history, were classified as partially free, up to an average of 4.5. However, all my cases are considered electoral democracies by Freedom House.

[10] Except for Mexico where I also incorporated the 2000 presidential election.

Parliamentary Democracies: Austria, Australia, Belize, Belgium, Canada, Denmark, Finland,[11] Germany, Greece, Ireland, Israel, Italy, Japan, Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, United Kingdom.

Presidential Democracies: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, France,[12] Guatemala, Honduras, Mexico, Nicaragua, Panama, Philippines, South Africa, South Korea, United States, Uruguay, Venezuela .

Dependent Variable: Probability of Reelection of the incumbent party

Almost all of the previous economic voting models take as the dependent variable the change in votes received by the incumbent party in the legislative elections compared to the last elections. Thus, these models usually use first differences. Although losing votes can be interpreted as a form of punishment, it does not necessarily imply that the incumbent party loses power. It may lose some votes, and still be able to retain power. The fact that governments may produce bad economic outcomes -and still manage to retain power- questions the strength of the punishment and the pervasive incentives this situation may create. Additionally, it is not the same to lose 5% of the votes in an election when the party won 65% of the vote in the last election, to lose 5% of the vote in a situation where the party won the last election with 51% of the vote. It is obvious that in the first case, supposing we are in a bi-party system, the party retains power, but in the second it loses it.

[11] Even though in the period studied Finland has a semi-presidential system I classified it as a parliamentary one, because it functions much more as a parliamentary democracy than as a pure semi-presidential system. The prime minister has much more power than the president.

[12] France has a semi-presidential system but I classified it as a presidential system because in the 1981, 1988, and 1995 presidential elections, the president's party had the majority in the Legislature, thus, making it function as a presidential regime. Still, it is important to mention that during a period of time, the president lost power to the prime minister, because its party lost the majority in the Legislature. This happened from 1986 to 1988, from 1993 until 1995, and since 1997 until 2002.

Probably the incentives for the party are different under these two scenarios, even if the percentage of votes lost is the same. The only way to ensure that the parties have incentives to perform well is if they perceive a real threat of losing power. Getting thrown out of office is the worst punishment that a party can receive by the electorate. This is the ultimate accountability measure. Taking this into consideration, I use as my dependent variable the reelection or non-reelection of the *incumbent party.* This is a dichotomous variable that takes the value of one if the incumbent party (the president or the prime minister's party, no matter if it is a coalition government or one party government) gets reelected, and takes the value of zero if another party gets elected.

The main argument of this paper is that governments are held accountable for their economic performance. Thus, the probability of reelection of the incumbent party increases if the economic performance of the government improves, and decreases if the economic performance declines. Contrary to CP, I contend that even with all the institutional and electoral complexities of presidential and parliamentary regimes, the economic vote function exists. Both parliamentary and presidential systems give the voter the opportunity to vote for a party. I do not deny that voters may tend to attach personal blame to either the President or Prime Minister, and that this personal attribution is very important. In fact, the actions of the head of government may weigh more in the voter's mind when deciding her vote, but this does not imply that there is no connection between the voters and the incumbent party as a whole. In fact, this connection probably is even stronger where presidents cannot reelect themselves, and where voters are left with no choice but to punish or reward the incumbent party rather than the president. Using reelection of the incumbent party as a dependent variable has several advantages in comparison to other dependent variables. First, it lets me incorporate all presidential elections, even when the president

does not have consecutive reelection. And second, and more important, it analyses the relationship between the economy, and what, in the end, may matter most to rational politicians: the probability of staying in power or being thrown out of office, given the economic performance.

Economic variables

In order to study the effect that the economic outcomes have on the vote, I considered two types of models: the myopic and the non-myopic. The first one assumes that voters are short sighted and only care for the present situation and immediate past. In these models voters are assumed to have a short-term memory and myopic stance with respect to the economy. On the other hand, the second model assumes that voters are not that short sighted and do care about the past. In these models voters take into account the immediate economic past previous to the election, but compare it to the historical economic performance of the nation. The difference between these two models lies in how I measured the economic variables of Growth per capita and Inflation. As I will later show, voters react differently to both economic variables. With respect to inflation, voters are much more myopic than with respect to growth. This is not surprising given that a rise in the prices has a generalized and immediate effect on the people i.e. lowers her purchasing power, whereas a decrease or increase in growth sometimes is not evenly distributed among the population and its impact may not be immediate. The following section explains the economic variables I use in the models[13]:

[13] All the economic data was extracted from the IMF database and from the "World Development Indicators (WDI)" World Bank database.

1. **Myopic Inflation**. This variable measures the logarithm of the average rate of inflation of the last two years previous to the election. Following the main hypothesis, I expect that higher inflation rates decrease the probability of reelection of the incumbent party. On the contrary, if the average inflation is low, the probability of reelection of the incumbent party increases, so I expect a negative sign on the coefficient.
2. **Non-myopic Inflation.** This variable measures the difference between the logarithm of the average rate of inflation of the last two years previous to the election and the logarithm of the mean average rate of inflation of the ten years preceding that current government. For example, if we were to study the non-myopic inflation effect on the 2000 US election, this variable would measure the difference between the average inflation rate that happened from the year 1998 through 2000, and the average mean rate of inflation from 1986 through 1995. My hypothesis is that this variable will have less of an impact than the myopic inflation.
3. **Myopic GDP per capita growth.** This variable measures the average growth rate observed in the two years previous to the election. I expect a positive coefficient sign.
4. **Change in GDP per capita growth**. This variable measures the difference between the mean growth rate observed from the moment since the party took power until new elections took place and the mean growth rate of the ten years preceding that government. As one can see, this is a long term variable because it compares present growth rates with an historical growth rate. Contrary to earlier models that considered growth as a myopic variable, I considered GDP per capita growth as a long term variable, assuming that voters are not myopic when it comes to judging

growth performance. I did this for several reasons. I took the idea of using a long-term growth variable from the work of Magaloni (1997). In studying the Mexican elections, Magaloni uses a retrospective electoral model based on Bayesian principles, where *past* and *present* information determine the voter's decision with respect to the incumbent performance. In her model, voters estimate the future incumbent economic performance based on its historical and present performance. In this context, voters are not myopic when they judge the performance of the growth rate. They update their beliefs with the latest government economic performance, but if they have seen a stable performance in the past, recent outcomes will not matter much when they vote (Magaloni 1997). Another reason I chose to measure GDP per capita growth rate as a long-term variable is because economic growth cannot be as easily manipulated by politicians as other economic variables. While the rate of inflation (especially in the cases where the degree of central bank independence is very low) depends on the government monetary policies, the growth rate depends on other factors that may not be as easily manipulated, and that require more time to change and to have an effect. Thus, as the economic vote function predicts, I expect that increases in the GDP per capita growth rate will increase the probability of reelection of the incumbent party. The expected coefficient sign is positive.

5. **Change in GDP per capita growth (adjusted)**. This variable is similar to the previous one, in the sense that it compares average growth rates to an historical mean, but it differs because it is measured exactly the same way as the non-myopic inflation. I estimated it as the difference between the average growth rate observed *in the last two years* before the election took place, and the mean average growth

rate of the ten years preceding that government. Why do I only consider, as in the non-myopic inflation measure, the average growth rate of the two years previous to the election, instead of all of the years that the government was in power? I took this idea from one of the economic cycle models (Alesina and Rosenthal 1995). Contrary to the partisan cycle model (Hibbs 1977) [14], Alesina and Rosenthal argue that the economic effects of right and left wing parties are not permanent due to people's rational expectations and eventual wage readjustments. Thus, in the first few years of a left wing government we will observe high rates of inflation and growth, but, given rational expectations and wage readjustment, it would be natural to expect normal growth and inflation rates after a period of time. The contrary effect happens in the first few years of a right wing government. But the main point here is that Alesina and Rosenthal expect the same rates of growth and inflation for both types of government by the end of their terms when rational expectations return the growth rates to normal. I use this variable only in the models run with the presidential elections sub-sample because it brought better results. Perhaps this measurement works better in this sample because it lowers the variance that one would otherwise observe if we take into account the whole period that the incumbent party was in office. [15]

6. **Wealth (Income)**. This variable controls for the differences in wealth across the countries. It measures the logarithm of GDP per capita of every country included in

[14] Hibbs argued that the effects that a party has on the economy depend on its ideology. Thus, considering the Phillips curve, he suggested that if the party in power had a leftist ideology, it would implement economic policies that lowered unemployment even at the cost of higher rates of inflation. The contrary happened with a right wing party.

[15] Or perhaps it works better because it goes along with the Bayesian principle in which voters put more weigh on recent performance when the historical performance was "noisy" i.e. with great variance. This is the case in the presidential sample where the majority of countries are from Latin America and suffered from radical changes in growth.

the model in the year 1990. As one can observe (chart 1), there are large differences in wealth across the countries studied. This fact may bias the results of the model because it could be the case that richer countries experience smaller fluctuations in inflation and economic growth than poorer countries. It is well known that poor countries are almost always the ones that experience the highest fluctuations in the inflation rate, or large decreases in growth. This could lower the probability of reelection of the incumbent party in poor countries.

Chart 1. Descriptive Statistics of the Economic Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Myopic Inflation (%)	201	.02	7487.61	108.13	722.55
Non-myopic Inflation (%)	199	-598.85	7465.98	82.02	724.11
Myopic GDP/cap growth	189	-12.18	32.38	1.58	3.95
? GDP/cap growth rate	186	-7.94	7.27	-0.20	2.65
? GDP/cap growth rate (adjusted)	186	-13.94	14.48	-0.29	3.65
Wealth (GDP/cap in 1990 US Dollars)	248	320	26400	11867	9019.65

IV The Myopic, Non-myopic and Mixed Models

Before describing the political and institutional variables used in the subsequent models, I will present three models: the first one, which I will call the "replication model"

or the "myopic model", is a model that, although it fails to replicate in exactly the same way the models by PW or CP, it does so at least in spirit. It only considers short-term measured economic variables similar to those used by PW and PC. I use the myopic inflation and the myopic GDP per capita growth variables in this model. Table 1 presents the "replication model". The second model (Table 2) is the non-myopic model. For this model I only use long-term measures for the economic variables (non-myopic inflation and non myopic change in GDP per capita growth). Finally, in Table 3, I present the mixed or basic model. In this model I use the myopic measure of inflation, but the non-myopic measure of growth. As I had explained before, it is not strange to assume that voters will be much more short sighted with respect to inflation than with respect to growth given the different impacts and the timing of these impact that both of these variables have on the electorate.

Table 1. Myopic or Replication Model

Logit Analysis: Probability of Reelection of the Incumbent Party

Independent Variables	Replication Model	
	Coefficient	Std. Error
Constant	.7052**	.3128
Myopic GDP/cap growth	.0597	.0450
Myopic Inflation	-1.1109***	.3073
***p<.01	N=184	
**p<.05 *p<.10	Overall Prediction: 64.13 %	

Dependent Variable: Incumbent Party Reelection=1; Non reelection=0

[Insert Graphs 1.1 and 1.2 around here]

Table 2 Non Myopic Model

Logit Analysis: Probability of Reelection of the Incumbent Party

Independent Variables	Long Term Model	
	Coefficient	Std. Error
Constant	-.2522	.1705
? GDP/cap growth rate	.1221*	.0640
Non-myopic Inflation	-.8223**	.3323
***p<.01	N=180	
**p<.05 *p<.10	Overall Prediction: 60.56%	

Dependent Variable: Incumbent Party Reelection=1; Non reelection=0

[Insert Graphs 2.1 and 2.2 around here]

Table 3. Basic Model (Mixed Model)

Logit Analysis: Probability of Reelection of the Incumbent Party

Independent Variables	Basic Model	
	Coefficient	Std. Error
Constant	.8492***	.2981
? GDP/cap growth rate	.1587**	.0656
Myopic Inflation	-1.1202***	.3081
***p<.01	N=182	
**p<.05 *p<.10	Overall Prediction: 67.03 %	

Dependent Variable: Incumbent Party Reelection=1; Non reelection=0

[Insert Graphs 3.1 and 3.2 around here]

The difference between the three models is very interesting. In the replication model (Table 1) only the inflation coefficient appears statistically significant. The fact that the inflation coefficient is statistically significant implies that perhaps this measure of inflation is better than the one used in the PW and PC models. But most importantly, it implies that

even without considering the institutional context, economic performance with respect to inflation affects the electoral outcome, so there is an economic vote function, after all. The myopic growth rate coefficient is not statistically significant, although the sign is in the correct direction. This result is not surprising. I expect that voters punish or reward *long-term changes* in growth rates compared to an historical mean, rather than myopic average or level growth rates. This result contradicts the view that voters are "dumb" or "short sighted" with respect of the economy. They apparently have long-term memories, and take the past into account. This is evident in models 2, and especially in model 3, where the coefficients of change in GDP/cap growth rate (a long-term measure) gain statistical significance. In model 2, both economic variables are statistically significant, but the growth coefficient is only statistically significant at the 10% level, and the overall prediction percentage is the lowest of the three models, suggesting a less robust fit. Finally, in the mixed model, both variables are statistically significant and the overall prediction of the model is 67%, the highest of the three models.[16] These results suggest that voters' judgments depend on what type of economic performance they are evaluating. Thus, they tend to be myopic with respect to inflation, but non-myopic with respect to growth. This difference may be due to the type of effect that each economic variable has on them. The interesting point here is that these results suggest a possible sophistication of the electorate, at least with respect to these economic variables. Voters when necessary take the past into account. Finally, the size and statistical significance of the long-term economic growth coefficients, suggest that maybe PW and PC did not specify their models correctly. The models suggest that, even without considering the institutional context, voters do punish the

[16] Given the better fit of these two variables, for all the subsequent models in the paper I use the myopic inflation variable and the long term change in GDP growth per capita.

incumbent party for bad economic performance. Summarizing the results we can say that the probability of reelection of the incumbent party lowers when inflation rises and when the GDP/cap growth rate decreases. This confirms the economic voting hypothesis: "When economic conditions are bad, the citizens vote against the incumbent party." (Beck 1988)

V The Extended Model: Political and Institutional Variables

Following the idea of clarity of responsibility suggested by PW, I incorporate some institutional variables into the basic or mixed model.[17] PW argue that earlier models of economic voting did not yield satisfactory results because they did not take into account the institutional context that affects the clarity of responsibility. They contend that in situations where there is low clarity of responsibility, voters have difficulty attributing responsibility for bad economic performance, thus making the relationship between economic performance and electoral outcomes disappear. In contrast, when the clarity of responsibility is high, voters are able to punish or reward economic performance. Thus, it is in this context where one can observe the vote function. This type of argument, if correct, has three (discouraging) implications for democracy: The first, and most obvious one, is that the vote *only* functions as an accountability instrument in certain type of contexts, in this case, in contexts of high clarity of responsibility. The second implication derived from the first, is that incumbent parties *only* have incentives to perform well under certain type of institutional contexts. And finally, under this logic, incumbent parties then have strong incentives to create institutional arrangements and situations that blur voter's vision and retrospective judgment.

[17] All the data for the dependent variable, and the institutional and political variables was taken primarily from the "Keesing's Record of World Events Online" database. I also used information from four political web pages mentioned in the Bibliography.

One of the purposes of this paper is to argue that it is not imperative to consider the institutional context to observe economic voting. This is clear by the results of the first few models. Still, these results do not imply that the institutional context does not have an effect. The institutional context may strengthen or weaken the relationship between economy and elections, but not necessarily in the direction suggested by PW. It may be that low clarity of responsibility, far from helping the incumbent party (by saving it from electoral punishment when it performs badly), injures it. Low clarity of responsibility contexts may not save incumbents from punishment, and worse, they may take away the rewards for a good economic performance. In order to study the effects of the institutional context I consider the following variables:

1. Bicameralism. This variable measures if the system is bicameral or unicameral. It takes the value of one when the system is bicameral, and the value of zero when the system is unicameral. When the country has a bicameral system, the responsibility for economic policies is shared by: the executive and the two chambers. Under a bicameral system, the executive, although it has more limited power, has the advantage of sharing the responsibility for a bad economic performance with the bicameral legislature. Thus, following PW argument, the electoral punishment may be less severe under a bicameral system than under a unicameral system because the clarity of responsibility is lower when more players hold power. But this may not necessarily happen, because even though the executive may share economic responsibility, this may not be a sufficient condition to save him from electoral punishment. Additionally, if there are more veto-players, as is the case under a bicameral system, the incumbent party may face more obstacles when passing its preferred economic policies. This may harm its economic

performance. Still, it is unclear whether a bicameral system will help or harm the incumbent party.

2. Minority government. This variable establishes whether the incumbent government holds a majority of the seats in parliament, i.e. if it is a minority government (or divided government as it is called in presidential systems) or not. It takes the value of one if the government is divided (minority government) and the value of zero when it is a majority government. Although minority governments can also share the responsibility for bad economic outcomes with the opposition majority (this is a low clarity of responsibility situation), this type of government may face deep troubles in implementing their economic policies. This in turn can create political instability, and bad economic performance. As in the bicameral system, the sharing of the responsibility may not be condition enough to save them from an electoral punishment if the economic performance is less than optimal. Thus the probability that the incumbent party gets reelected under a minority government may be even lower than under a majority government. The expected coefficient sign is negative.

3.Number of parties in the coalition. This variable applies mainly to the parliamentary cases. Even though presidential systems may form electoral coalitions, governing coalitions are very rare and unstable because the president does not depend on the coalition to keep holding office. By contrast, in a Parliamentary system the Prime Minister has to hold the governing coalition together, or he can lose office. Thus, when I speak of number of parties in the coalition I am only referring to the parliamentary cases. The more parties in the governing coalition, the more dispersed the power, and

the lower the clarity of responsibility for the voter. Again, as in the divided government situation, even though the governing coalition may be very big and the Prime Minister may share responsibility for bad economic outcomes with the rest of the parties in the coalition, it may not save him from an electoral punishment, especially since it usually is the Prime Minister's party that dictates the economic policy. Additionally, it is harder to agree on economic issues when the coalition is large, and this can produce inefficient and slow results fostering a bad economic performance. Considering the above, I expect that the probability of reelection of the incumbent party will be lower the greater the number of parties in the governing coalition. In this context, low clarity of responsibility does not help the incumbent party; on the contrary, it harms it.

4.Electoral System. This is a dummy variable that takes the value of one if the electoral system is a majority system, and the value of zero if it is a proportional representation system. The classification for this variable was taken out from the work of Lijphart (Lijphart 1999), and for some of the Latin American cases, from the work of Jones (Jones 1995) . Given that the district magnitude under majority systems is one, small parties tend to disappear, whereas in systems of proportional representation, the party system tends to fragment because of the larger district magnitude (Cox 1997; Taagapera and Shugart 1989). The more fragmented the party system in the Legislature, the more diffuse is the responsibility for economic performance, and the less clarity of responsibility there is for the voter. Following PW, I expect that proportional representation systems raise the probability of reelection of the incumbent party, while

majority electoral systems lower it. The expected coefficient sign is negative, and in this case the diffusion of responsibility may help the incumbent party. [18]

5.Right Wing Party (Ideology). This is a dummy variable that measures the effect on the probability of reelection of the incumbent party produced by a change from a left wing government to a right wing government. The variable takes the value of one when the incumbent party has a reputation of being a right wing party, and zero when it has the reputation of being a left wing party. Although I do not believe that ideology has an effect per se on the probability of reelection, given the economic performances produced on average by both type of parties in these last two decades, we could predict that left wing parties have a higher probability of getting reelected than right wing parties. Chart 2 shows that left wing parties did a better job handling the economy than right wing parties, especially with respect to the GDP per cap growth rate.

Chart 2

	Mean Inflation	Mean GDP/cap growth
Right wing parties	**116.58%**	**-0.24%**
Left wing parties	**99.90%**	**-0.18%**

[18] This goes against the logic I just presented in the minority government and number of parties variables. I still do not have an answer of why in some cases high clarity of responsibility helps the incumbent party, while in others it hurts it. Perhaps low clarity of responsibility just helps the incumbent when it does not affect the economic performance directly.

6.Interactive variable: Ideology*Inflation. This variable measures the effect that party ideology may have on the relationship between inflation performance and the probability of reelection. This variable seeks to measure whether right wing parties tend to be reelected with a higher probability under different economic conditions. Political business cycles theorists (Alesina 1997; Alesina and Rosenthal 1995; Hibbs 1977) have studied the effect that ideology has on the incumbent political economy. Departing from the Phillips curve trade off, the traditional political cycle theory states that left-wing governments prefer a low unemployment rate even at the cost of high inflation; while, right wing governments prefer lower rates of inflation even at the cost of high unemployment rates. With this in mind PW expect that right wing parties will be more punished than left wing parties for high inflation, because the electorate expects that right wing parties will maintain lower inflation rates. Similarly, left wing governments will be more severely punished for high rates of unemployment.

Following Downs' belief that the vote is not ideological but economic, I expect that no matter what the ideology of the incumbent party, bad economic performance, in this case high inflation, will be punished. I do not know if we will see a difference in the severity of the punishment between left and right wing parties, as Kiewiet (Kiewiet 1983) or PW predict.

7.Years of Continuous Electoral Democracy (Years of Demo). This variable measures the years that the country has been a continuous electoral democracy since 1948 through 1998. For example, under this measure, the US, England and Belgium have 50 years of continuous electoral democracy, whereas Spain only has 21 years, and Mexico only four. If we assume that voters have a learning curve with respect to how

democracy works, then we could suppose that in the "oldest" democracies the economic vote function will be more robust.

8.Concurrent Elections (Concurrent). This variable is only for the models I run with the presidential sub-sample. In presidential regimes, elections can be concurrent with congressional elections or not. The variable takes the value of 1 when elections are concurrent and of zero when elections are non-concurrent. One could suppose that concurrent elections make the election more risky in the sense that all the offices are at stake, whereas in non concurrent elections, voters know either what type of Congress the next president will face (if congressional elections are first), or with what type of president the next Congress will govern. Non-concurrent elections produce high clarity of responsibility because voters know with what type of congress will the new executive govern or vice-versa. But they also provide voters the opportunity to punish the president's party twice (both in the presidential and congressional elections). This could induce voters to be less severe with the president's party, because they know they have a second opportunity to punish, if economic performance is bad (Alesina and Rosenthal 1995). Thus one could expect that the double punish opportunity that non-concurrent elections give to voters, will tend to increase the probability of reelection of the incumbent party. I expect a negative sign on the coefficient.

9.Central Bank Independence (CBI). I use this variable for a model (model 4.3) that only takes into account a sub-sample of executive elections in 19 industrialized democracies. The variable measures the effect that the degree of the Central Bank Independence has on the probability of reelection of the incumbent party. The problem

with this variable is that I did not find a Central Bank Independence index for both industrialized and developing countries, that takes into account not only the eighties, but also the nineties, or if the index does, it only does so for industrialized countries. The Cukierman, Webb, and Neyapti index, for example, measures the degree of CBI in both industrialized and developed countries, but it only does so until the eighties. The problem is that in the nineties almost all Latin American countries experienced reforms in their Central Banks (making them more independent), and there are still no indices for both industrialized and developed countries that take these changes into account.[19] Thus this variable will be run in a model for only a sub-sample of industrialized democracies. I use the index of CBI constructed by Alesina and Summers (Alesina and Summers 1993).[20] Assuming that the neoclassical approach is correct, this is, that countries with independent central banks have lower rates of inflation than countries with dependent central banks, then the question that arises is: who is responsible for the inflation performance, the government or the central bank? When the central bank is dependent the government dictates the monetary policy, and the responsibility for economic performance relies solely on the government (high clarity of responsibility context). But in the cases where the central bank is independent, it is not clear who carries the punishment for a bad performance. It is known that voters cannot directly punish the central bank, but perhaps they can at least spare the government of punishment if there is high inflation and the central bank is independent. My hypothesis

[19] There is an index that was especially constructed by Luis I Jacome (IMF Working Paper, December 2001) for Latin American Countries in the nineties, the problem is that this index only is for Latin America and it does not incorporate industrialized countries.

[20] The Alesina and Summers' index averages the indexes of Bade and Parkin, and of Grilli, Masciandaro and Tabellini into one index. I incorporated the cases of Austria, Greece, Ireland and Portugal from the Grilli, M and T into this index, and changed its 1 to 4 scale to a 0 to 1 scale, where 0 means no independence and 1 means complete independence.

is that even if the central bank is independent and is the sole monetary policy authority, incumbent parties will carry the blame for a bad economic performance. I am not sure if the degree of independence of a central bank will affect the incumbent probability of reelection per se.

Before analyzing the extended models, I present a merely descriptive linear regression model that shows the effect that the degree of central bank independence has on the inflation rate (only for 19 industrialized countries), corroborating at least partially the neoclassical literature.

Linear Regression. Effect of Central Bank Independence on Inflation

N=112	**Beta**	**Std. Error**
Constant	**9.508**	**.837**
Central Bank Independence	**-8.851**	**1.813**
Dependent Variable: Inflation	R Square=.178	

In the following section, I present the extended models that take into account the whole sample of executive elections in 41 democracies, and incorporate the political and institutional variables discussed in the preceding section. Then I present the models for both parliamentary and presidential sub-samples, discuss the results, and conclude with a future agenda.

Extended models

Table 4 Logit Analysis: Probability of Reelection of the Incumbent Party

Expanded Models						
Independent Variables	Model 4.1		Model 4.2		Model 4.3 (19 industrialized democracies)	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff	Std Error
Constant	-2.1985	1.7797	-.9800	1.7848	-.9461	9.6022
? GDP/cap growth rate	.2225***	.0743	.2290***	.0748	.3689**	.1529
Myopic Inflation	-.8906**	.3495	-1.9965***	.7551	-.0659	.0540
Bicameralism	.2247	.3514	.2392	.3531	-.5615	.6319
Minority Government	-.8569**	.3748	-.8564**	.3771	-1.6166**	.6555
# Parties/Coalition	-.3433**	.1728	-.3687**	.1775	-.4604**	.2130
Electoral System(Majority)	-.4541	.4716	-.5691	.4798	-1.2322*	.6747
Right-Wing Ideo.	-.9692***	.3506	-2.2065***	.7967	-1.0286**	.5024
Ideology*Inflation			1.4293*	.7969		
Years of Demo.	.0013	.171				
Central Bank Ind.					2.1133	1.8880
Wealth	.8989*	.5446	.8673**	.4042	.5453	2.3269
***p<.01 **p<.05 *p<.10	N=181 Overall Prediction: 69.61%		N=181 Overall Prediction: 71.27%		N=101 Overall Prediction: 71.29%	

[Insert Graphs from Model 4.2 around here]

As the results in Table 4 show, institutional and political variables do have an impact on the probability of reelection of the incumbent party, but they do not change the relationship between economic performance and electoral outcomes. Both, the change in GDP per capita growth and the inflation coefficients maintain their correct signs and statistical significance. Only in model 4.3 does the inflation coefficient lose all statistical significance. This may be due to the perception that voters have of what is the more important economic problem. Additionally it is important to remember that Model 4.3 does not take into account the whole sample of elections, but only incorporates elections of 19 industrialized countries where the rates of inflation are fairly low. Voters tend to judge the incumbent's economic performance with respect to the economic problem they perceive as more severe. In this case, given the period studied and the sample of OECD countries in model 4.3, economic stagnation, not high inflation, may have been the priority in the voters' mind. This may explain why in model 4.3 inflation is not statistically significant.

The models also show how low clarity of responsibility does not necessarily save the incumbent party from electoral punishment. On the contrary, as one can observe, the coefficients of minority government and number of parties in the coalition, which represent low clarity of responsibility situations, decrease the probability of reelection of the incumbent party. These findings contradict the results of PW.

Minority governments, although they contribute to a low clarity of responsibility context, also lower the probability of reelection of the incumbent party. As explained before, minority governments may experience political instability and have trouble passing economic policies. This may lead to a bad economic performance. The same thing happens with the number of parties in the coalition. The more parties in the governing coalition, the harder to reach a consensus on economic policy, and the lower the probability of reelection

of the incumbent party. Although, in models 4.1 and 4.2, the direction of the bicameral coefficients supports the PW low clarity of responsibility theory, the coefficients lack statistical significance, so it is impossible to establish this relationship with certainty. By contrast, in model 4.3 the bicameral coefficient has a negative sign, contradicting PW, but, again, it is not statistically significant. The only result consistent with PW is the one regarding the electoral system. But this result only appears significant in model 4.3 where almost all the cases are parliamentary democracies. In proportional representation systems (which lower the clarity of responsibility context) incumbents have a higher probability of reelection.

As expected, left parties have a higher probability of being reelected than right parties. The interaction variable coefficient sign is also significant and in the correct direction. Right wing parties get less punished by inflation. These results contradict the PW model, and confirm Kiewiet's argument (1983). In times of high inflation voters will tend to vote for a right wing party because they believe that for this party lowering the inflation rate is a priority. So, when inflation is high, even if the party in power is a right wing party, voters will tend to stick with it. If, on the contrary the incumbent party is left wing, citizens will tend to vote for a right wing party.

The years of continuous electoral democracy (model 4.1) do not have an effect on the probability of reelection of the incumbent party, and neither do they affect the economic variables coefficients. Economic voting is observable in both young and old democracies.

As mentioned before I present model 4.3 just to analyze the effects of the degree of central bank independence. It is interesting to see that the sign of the coefficient is positive, this means that if the coefficient were statistically significant, which is not, incumbent parties would have a higher probability of reelection if the central bank were more

independent. It is extremely strange to see high inflation when the central bank is independent[21] (as the linear regression showed), so it may be reasonable that incumbents would have a higher probability of reelection when the central bank is independent. Finally in models 4.1 and 4.2 the wealth coefficient appears to be statistically significant. Incumbents have higher probability of being reelected in richer countries than in poorer ones. In model 4.3 the wealth coefficient is not significant. This is not strange given that the variance in wealth for the sample of countries in model 4.3 is not as significant as the variance for the whole sample of countries.

Why do we find that in low clarity of responsibility contexts -like minority government situations or grand coalitions- incumbents get harmed? One reason I can think of is the asymmetric relation between electoral punishments and rewards. When the clarity of responsibility context is low, citizens, on the one hand, will not forgive the government for a bad economic performance, and on the other hand, if the economic performance is good they will not reward it as much. This uneven relationship between electoral rewards and punishments is what Nannestad and Paldam call the "grievance asymmetry", or what Mueller calls the "Kick-the-Rascals-Out-Asymmetry"(Nannestad and Paldam 1994). Voters tend to punish bad economic performance more than they reward good economic performance. When the clarity of responsibility context is high, voters may be able to more easily reward good economic performance. A low clarity of responsibility context may blur the voter's vision and keep him from rewarding the incumbents for good management of the economy, but this same context will not make the voters forgive a bad economic performance. As the coefficients on the economic variables show, low growth and high

[21] See Alesina and Summers 1993."Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence" *Journal of Money, Credit and Banking*, Vol 25(2).

inflation will be punished no matter what the institutional and political contexts are. Thus, bad economic performance will always be punished. If one looks at the coefficients of the institutional variables, it is clear that the effects of low clarity of responsibility are not always the same. In the case of the electoral system (model 4.3), low clarity of responsibility benefits the incumbent. But one has to remember that this model only takes into account elections in 19 industrialized democracies. In models 4.1 and 4.2 where the whole sample is considered, although the direction of the coefficient is the same, it lacks statistical significance. I do not know how to account for the result of model 4.3. I can only say that this result implies that the effects of a low clarity of responsibility are not always the same. Summarizing the main results of Table 4 one can say that low economic growth and high inflation rates lower the probability of reelection of the incumbent party. Minority governments and grand coalitions are the worst scenario for incumbent parties. The electoral system and the ideology of the incumbent party are also factors that impact the probability of reelection of the incumbent party. The Degree of Central Bank Independence does not have an effect on the probability of reelection. Incumbents' probability of reelection increases the wealthier the country.

Finally, in the next section I will divide the whole sample into two sub-samples, parliamentary and presidential, and see if the main findings of the previous models hold.

VI. Parliamentary and Presidential Models.

Parliamentary Models

Table 5 Logit Analysis: Probability of Reelection of the Incumbent Party

Parliamentary Sub-sample						
Independent Variables	Model 5.1		Model 5.2		Model 5.3	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff	Std Error
Constant	-.8270**	.3345	-7.1336	4.7920	-9.3916	5.5552
? GDP/cap growth rate	.3730***	.1239	.4325***	.1348	.4819***	.1448
Myopic Inflation	-.6463*	.3990	-.8299*	.4524	-2.8799**	1.1537
Bicameralism			-.4365	.5737	-.4221	.5923
Minority Government			-1.8994***	.6655	-1.8604***	.6802
# Parties/Coalition			-.4831**	.2003	-.5568***	.2152
Electoral System(Majority)			-1.1553*	.6847	-1.3352*	.7059
Right-Wing Ideo.			-1.0853**	.4738	-3.0289***	1.1009
Ideology*Inflation					2.6661**	1.2559
Wealth			2.1382*	1.1616	3.0975**	1.3976
***p<.01 **p<.05 *p<.10	N=112 Overall Prediction: 67.86%		N=111 Overall Prediction: 74.77%		N=111 Overall Prediction: 72.07%	

[Insert Graphs 1 and 2 from model 5.1 around here]

Presidential Models

Table 6. Logit Analysis: Probability of Reelection of the Incumbent Party

Independent Variables	Model 6.1		Model 6.2	
	Coeff.	Std. Error	Coeff.	Std. Error
Constant	.5353	.6289	5.0379*	3.0573
? GDP/cap growth rate (adjusted)	.0874	.0584	.1175**	.0675
Myopic Inflation	-1.1896**	.5459	-1.9657***	.7569
Bicameralism			1.6719**	.7589
Minority Government # Parties/Coalition				
Electoral System(Majority)				
Concurrent			-.9787	.8479
Right-Wing Ideo.			-1.5372**	.6684
Ideology*Inflation				
Wealth			-.9175	.7659
***p<.01 **p<.05 *p<.10	N=70 Overall Prediction: 67.14%		N=70 Overall Prediction: 75.71%	

[Insert Graphs 1 and 2 from Model 6.1 around here]

From the models of tables 5 and 6 we can draw the following conclusions: The first and most important one is that in both regimes there is an economic vote function. In all the parliamentary models a decrease in GDP per capita and higher rates of inflation lower

the probability of reelection of the incumbent party. In the presidential models it is mostly high inflation that is punished by voters. Growth lacks statistical significance in model 6.1, and its coefficient is fairly small. This difference of impact of growth and inflation for both regimes can be better understood if one looks at chart 3. It is obvious that for the period studied, inflation was a much more salient problem for presidential democracies than economic growth. The mean inflation for the period and presidential regimes studied is approximately of 252 %, compared to a mean inflation of only 9% in parliamentary democracies. It is also possible to notice that decreases in economic growth were more severe in parliamentary democracies than in presidential ones. This explains the stronger effect of growth for parliamentary democracies. With these statistics in mind it is easier to understand why graph 1 of model 5.1 shows a much more linear relationship between GDP/cap growth and the probability of reelection, than the much less linear and spread out graph 2 of inflation. The contrary can be seen for the presidential models graphs. The graph of inflation appears more linear and less spread out than the economic growth graph.

Chart 3.Descriptive Economic Statistics for Parliamentary and Presidential Regimes

	Mean Inflation	Mean GDP/cap growth
Parliamentary Democracies	**9.24%**	**-0.23%**
Presidential Democracies	**251.65%**	**-0.15%**

With respect to the institutional variables, almost all have the same effect in parliamentary systems as the ones seen in the extended models with the whole sample (Models 4.1 and 4.2), except for the bicameral coefficient that is not statistically significant but has a negative sign, implying that in parliamentary systems incumbent parties have a

higher probability of getting reelected if there is only one chamber. This result goes against the PW argument. Unicameral systems contribute to a clearer responsibility context, and this in turn increases the incumbent's party probability of reelection. Still the coefficient lacks statistical significance, so we cannot draw definite conclusions. Minority governments and grand coalitions harm incumbent parties. The only low clarity of responsibility institutional factor that benefits them is a PR electoral system. This result is goes in favor of PW. Still the mixed effects of institutions that lower the clarity of responsibility context, makes one doubt of the PW results.

For the presidential models, the results were not very good. Almost all the institutional variables had very high standard errors and were insignificant. Still, in all the models I ran, the institutional variables did not change the main results of inflation and economic growth. For this reason I presented only models 6.1 and 6.2. Model 6.2 was the only model in which growth gained significance. Concurrent elections appear to decrease the probability of reelection of the incumbent party as I had already explained, but the coefficient is not statistically significant, so this relationship cannot be established. Ironically, one of the few coefficients with statistical significance in model 6.2, besides the economic, is the bicameral one, but with the opposite sign observed in the parliamentary models. In presidential systems, bicameralism benefits, rather than harms the incumbent party. This result also goes in line with PW low clarity of responsibility argument. I cannot explain why the impact of bicameralism is so different for both regimes. It would be very interesting to account for this result. Perhaps it is completely spurious. One can see that the presidential models only take into account 70 cases, whereas the parliamentary ones take consider 112 cases. Although if I follow this logic I am forced to say that the rest of the

results in models 6.1 and 6.2, are spurious too, and this is not helpful. I will just say that the effects of bicameralism on the probability of reelection of the incumbent party are unclear. Finally, right wing parties were also losers in presidential regimes. The probability of being reelected is higher for left wing parties than for right wing parties in the period under study.

The main point that I want to get across with tables 5 and 6 is that, independent of the regime and its institutional complexities, bad economic performance will be punished. This is an encouraging result because it implies that politicians must attend to economic performance, or their probability of staying in power decreases. The vote, thus, functions as an economic accountability instrument, and voters, after all, are not as myopic and ignorant with respect to the economy as some studies portray.

VII Some final conclusions and future agenda

I would like to finish this paper with some thoughts on the results and some ideas for future research. The first three models of this paper show that voters are more sophisticated in judging economic performance than what has been generally thought. Voters do make comparisons and take the past into account, at least when judging economic growth. With respect to inflation, voters are short sighted, but I would contend that they are myopic not out of forgetfulness or short memory, but because it is much more rational for them to judge inflation this way, given the immediate and generalized effects that an increase in prices brings. Thus, voters can be long and short sighted, this will depend on what they are evaluating.

The results of the basic and extended models suggest that, although the institutional and political contexts have an effect on the economic vote function, this function is strong enough to be observed even without controlling for the institutional variables. V.O. Key

was correct in his theory: incumbents will be punished for bad economic performance. These results go against the findings of Cheibub and Przeworski. The vote does function as an accountability instrument. Contrary to PW we can see that low clarity of responsibility contexts (minority governments, big coalitions, proportional representation systems, etc) do *not always* benefit the incumbent party by saving it from electoral punishments. On the contrary, in some instances they harm the incumbent party. We can also observe that in this model the winners were the left-wing parties, for obvious economic reasons.

The economic vote function appears in both parliamentary and presidential regimes. No matter the intrinsic institutional complexities of these regimes, voters always have the opportunity to punish the incumbent party for a bad economic performance, and they do make use of this opportunity, especially when judging the most salient economic problem.

Although these are interesting findings, I cannot deny that this study has some important shortcomings that ask to be corrected and improved upon. First, incorporating other economic variables like the rate of unemployment could help us understand better the relationship between economic performance and electoral outcomes. Are voters myopic or long term sighted with respect to unemployment? More important, do they punish high rates of unemployment? Second, I need to justify why in the GDP/cap growth measure I compared the average mean growth seen in the period previous to the election to an "historical" average mean of ten years. Why ten years? What is the reason behind this measure? What would happen if I compared it to an average mean of 20 years? Or to a different mean? Is there a better way to specify the long-term economic growth?

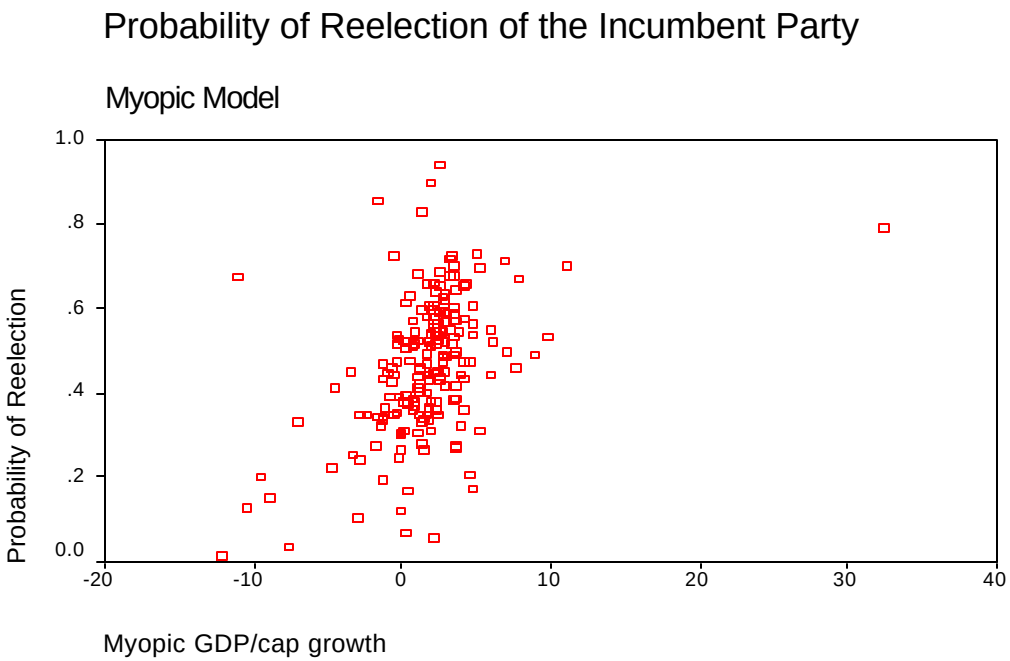
Third, would demographic variables affect the main results of this study? How can I explain the different effects of the institutional variables?

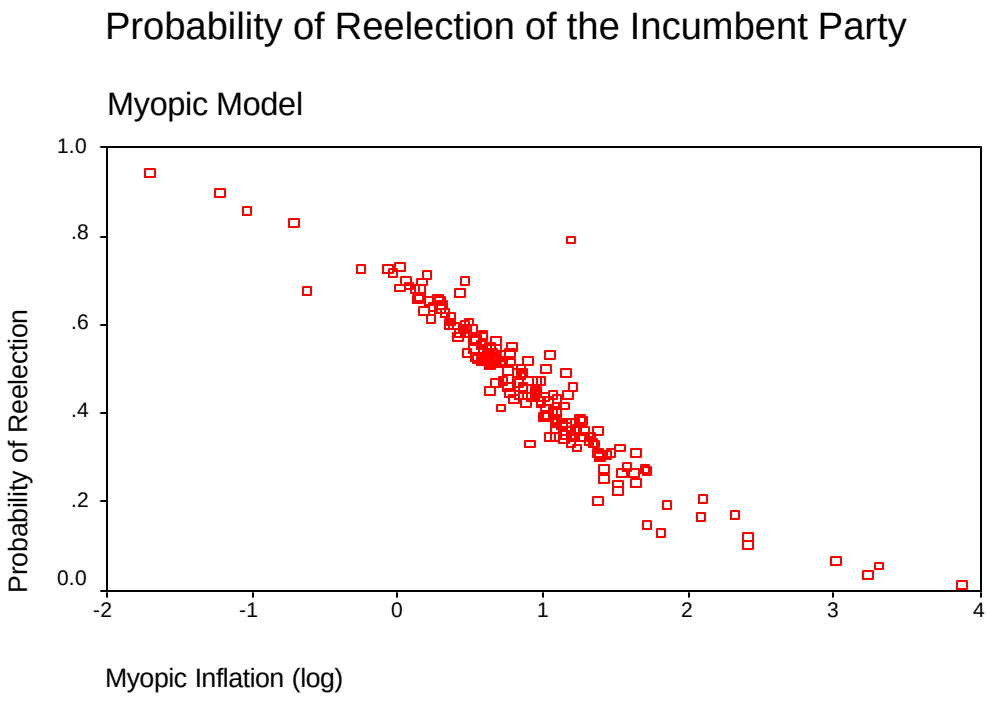
Fourth, it would be very nice to introduce an index of central bank independence for all the countries in the sample, and analyze the effect of independence on the probability of reelection.

Finally, one has to take into account that this study only covers the period from 1980 through 1998 (post oil crisis period). In order to have more confidence in these results, it would be wise to study a period that covered at least one more decade, and if possible all democracies of the world. Still, for those who believe in democracy and accountability, it is encouraging to see that voters are not as blind as they sometimes are made to appear, and that the vote does function as an accountability instrument for economic performance.

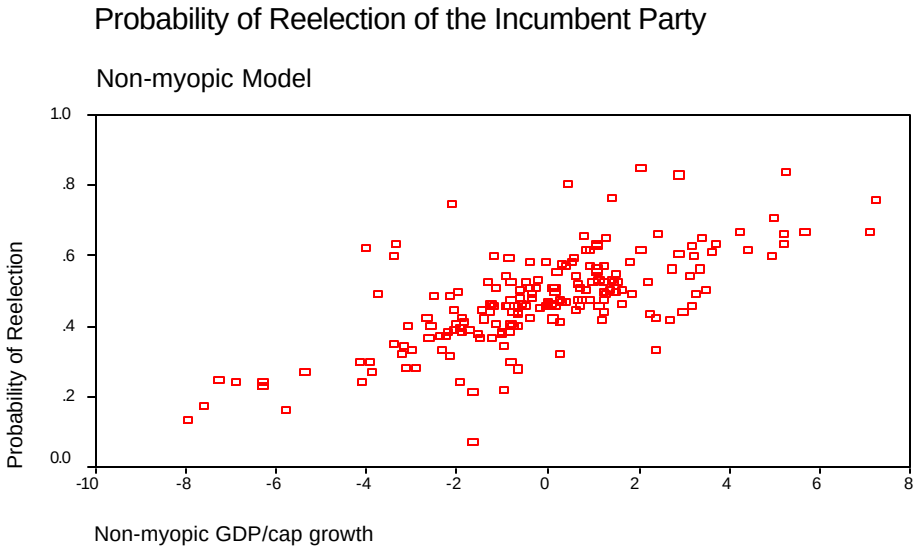
Appendix

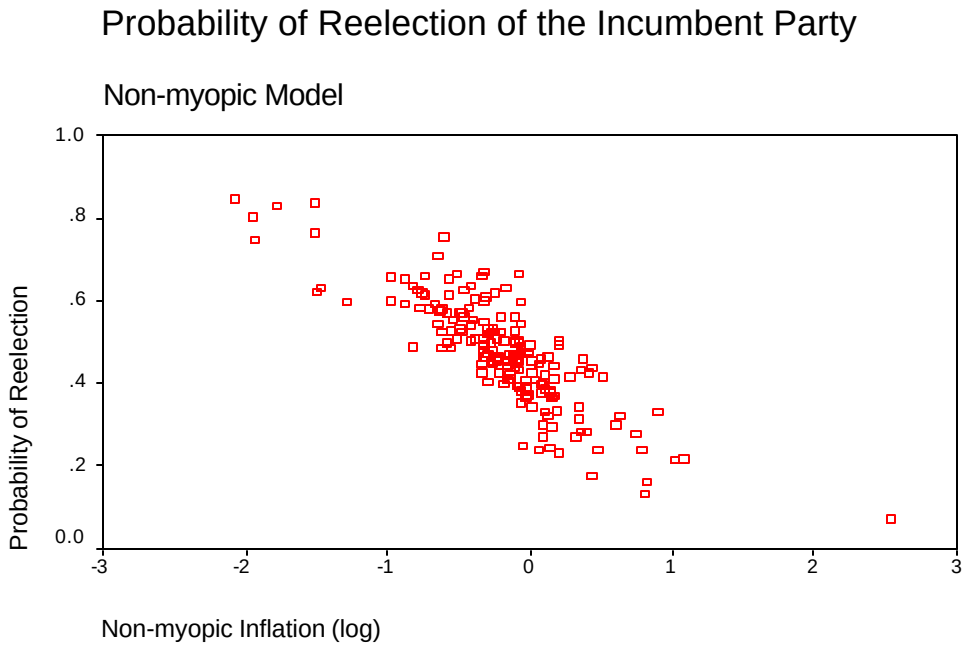
Myopic Model Graphs 1.1 and 1.2



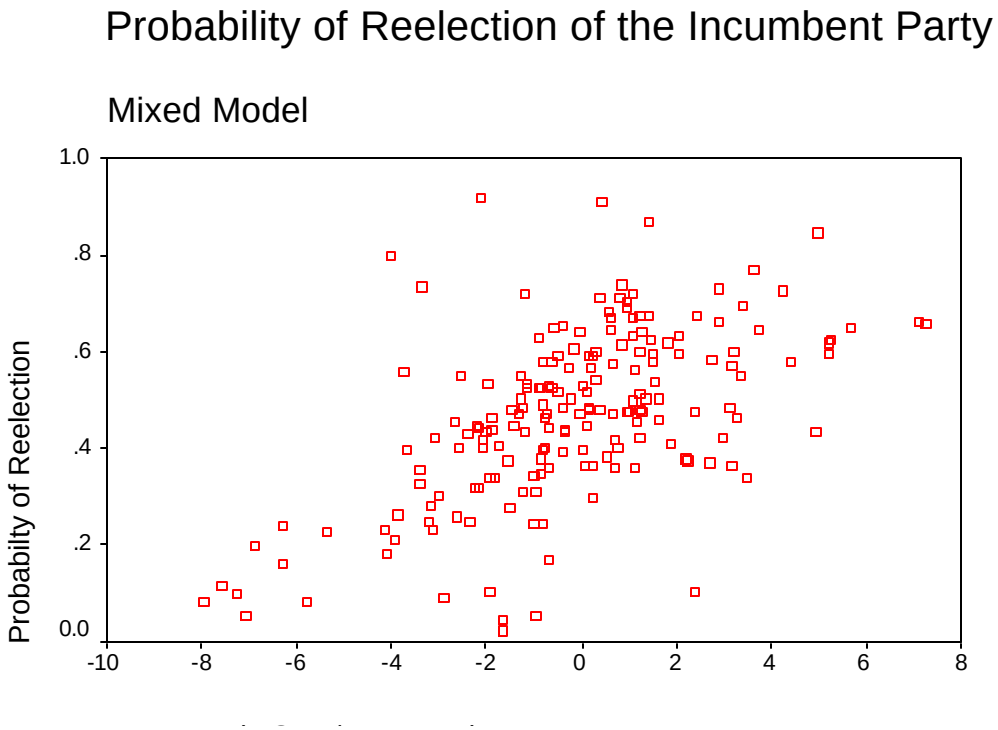


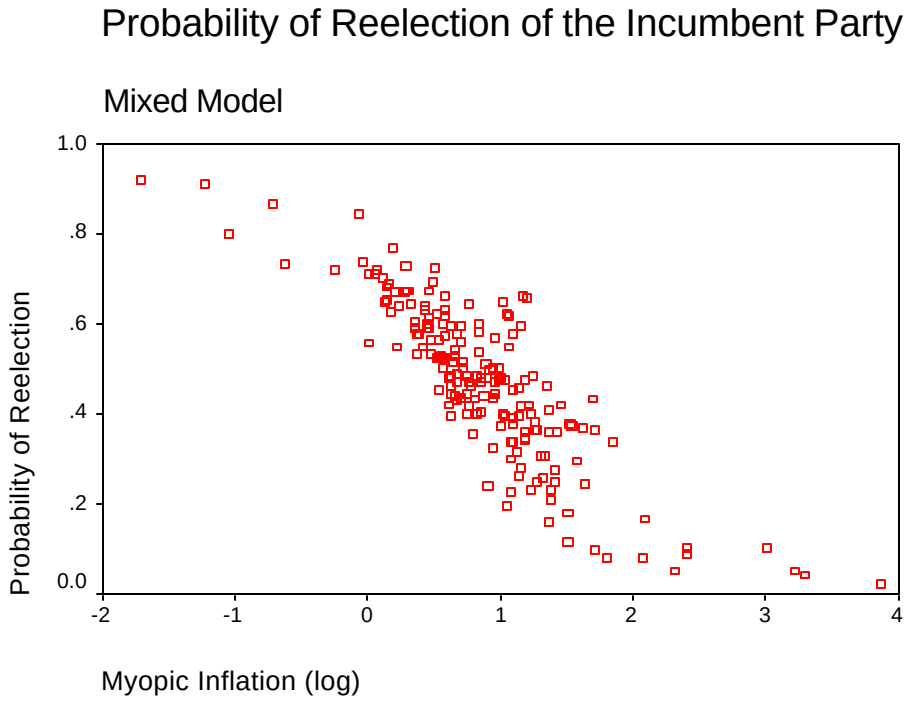
Non-myopic model Graphs 2.1 and 2.2



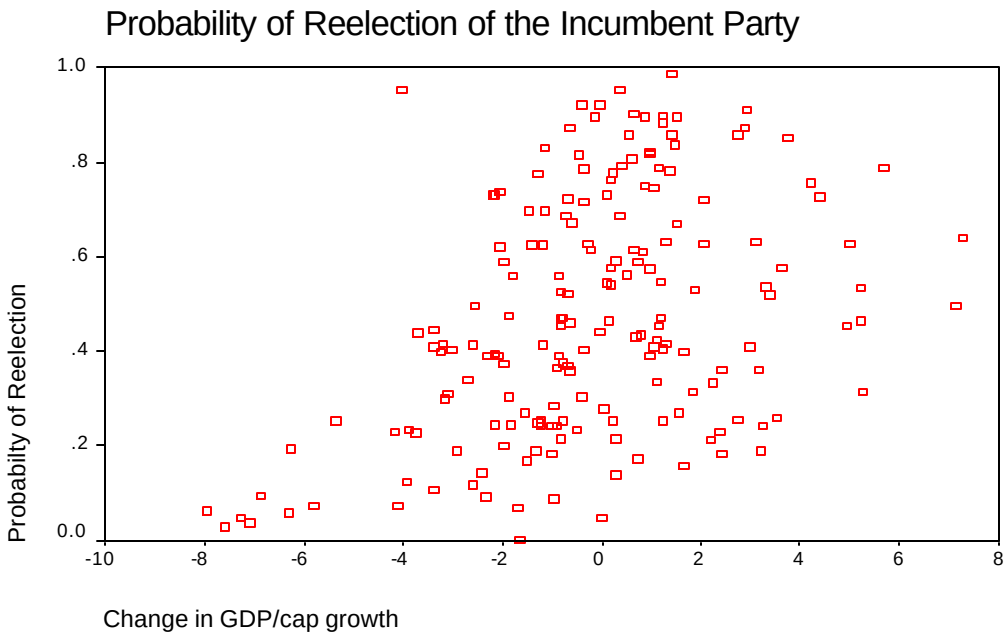


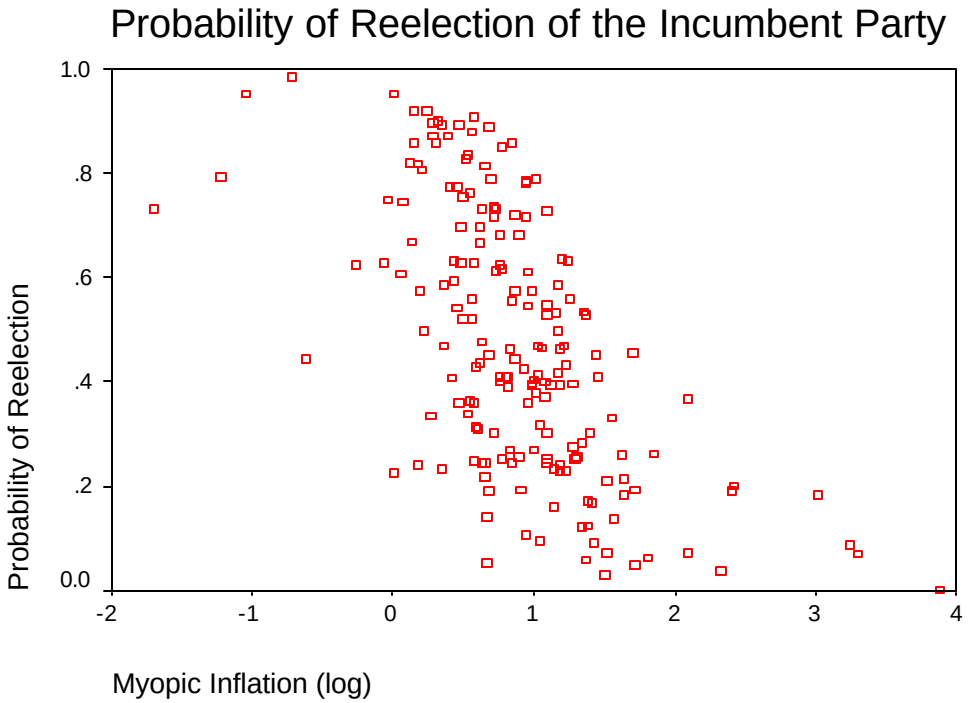
Basic Model Graphs 3.1 and 3.2



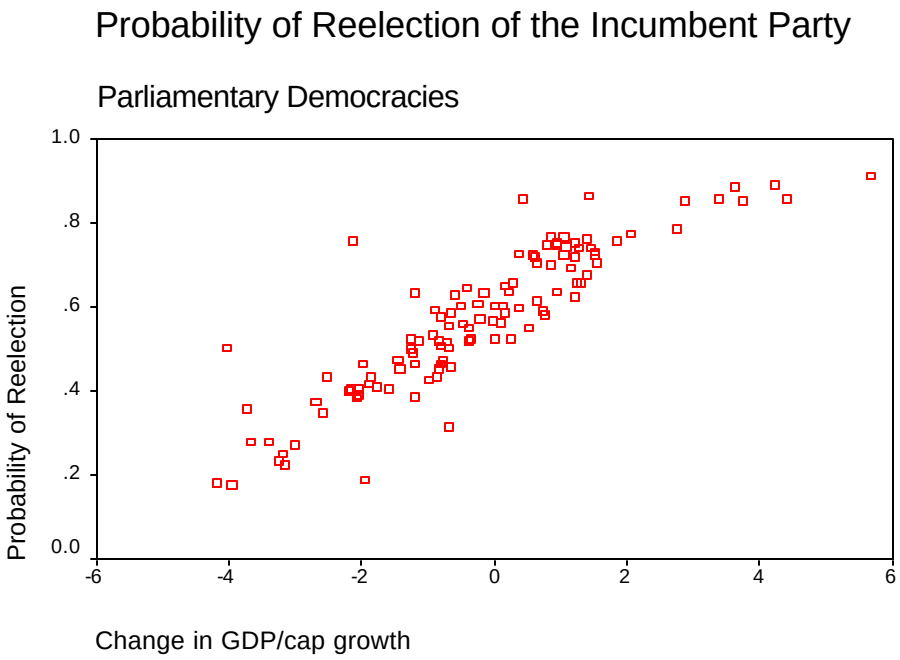


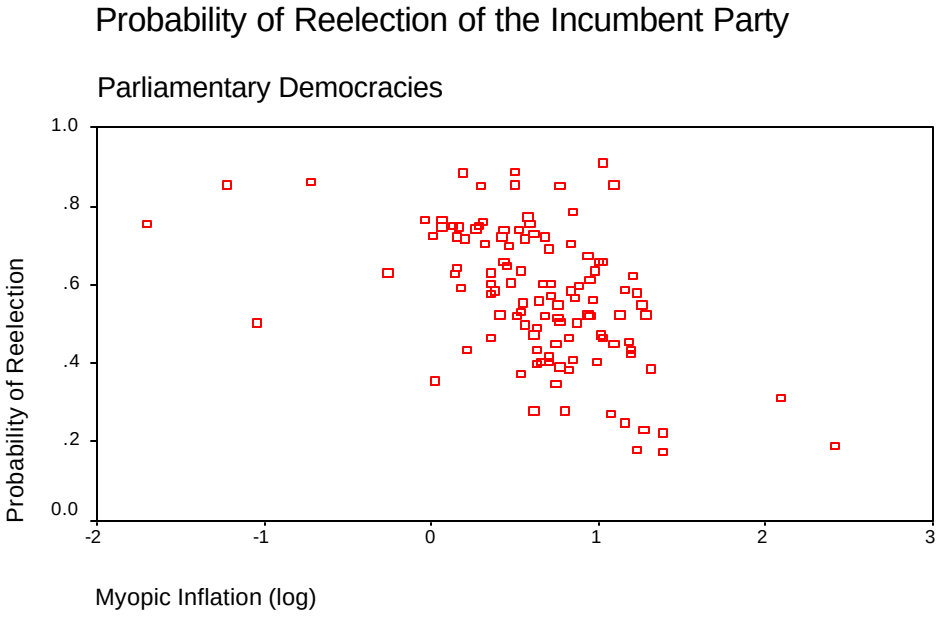
Model 4.2 Graphs (controlled for the institutional context)



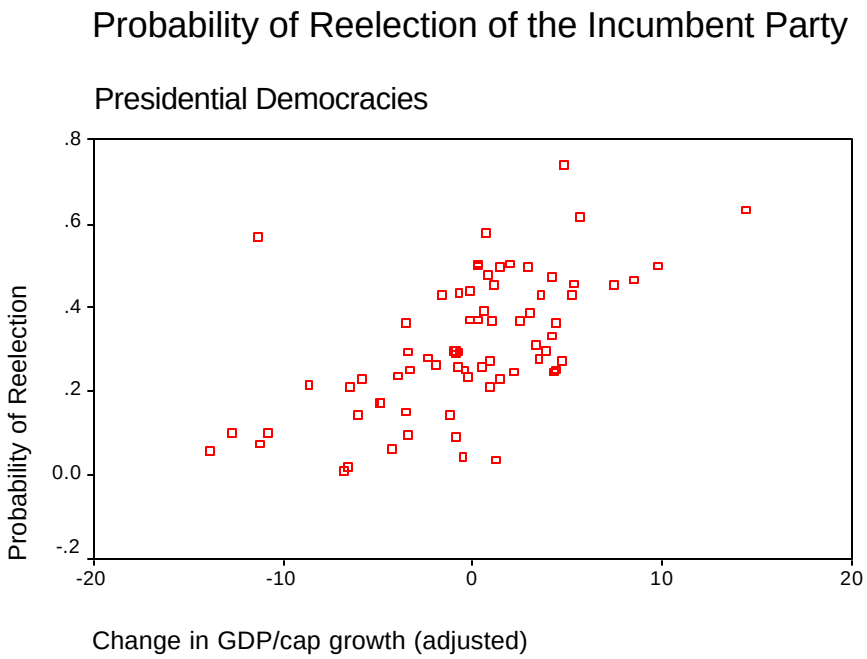


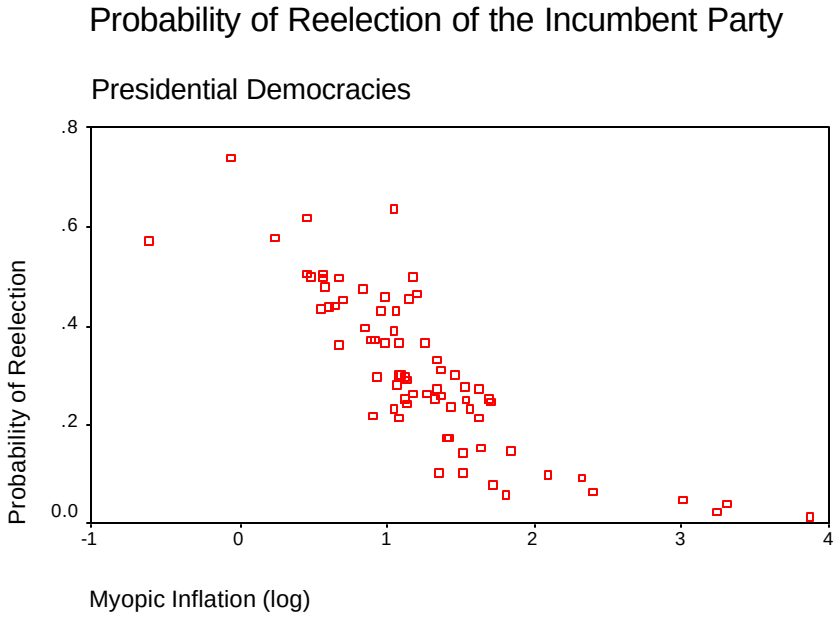
Graphs 1 and 2 of Model 5.1 Parliamentary Democracies





Graphs 1 and 2 of Model 6.1 Presidential Democracies





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