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# HOLDING THE GOVERNMENT ACCOUNTABLE: A COMPARATIVE STUDY OF ECONOMIC VOTING ACROSS INSTITUTIONAL CONTEXTS IN LATIN AMERICA

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## **Abstract:**

Numerous economic reforms were implemented in many Latin American countries during the 1990s. The consequences of these reforms were: increase in unemployment, poverty and stagnation of the social budget. In face of these negative results, the emergence of strong opposition from the citizenship and the punishment at the polls of those politicians that had implemented such reforms was predicted. Oddly enough, many of the presidents who implemented the reforms were reelected. What are the factors that account for the paradoxical electoral behavior of the voters? This paper argues that institutional variables condition the process of accountability. As Powell and Whitten (1993) established, the governmental format tends to affect the clarity in the process of responsibilities attributed to the government for economic outcomes. Political factors shape the electoral consequences of economic performance. I studied how different institutional designs would affect the attribution of government's responsibility for economic outcomes in Latin American countries during the 90's. I tested this through a comparative design divided in two stages. The first was based on testing alternative hypotheses found in the literature about the impact of institutional design on clarity of responsibility in 16 Latin American countries between 1996 and 2004. I split the sample by context (unified vs. divided government; bicameral opposition; % of representative seats of presidential party; effective number of parties (Laakso y Taagepera 1979); re-election according to the law; presidents who effectively ran for re-election; volatility vs. stability of voting; change vs. stability of presidential electoral rules; change vs. stability of representatives electoral rules; and change vs. stability of party system) and I measured the impact of the economic vote across those institutional features. In the second stage, the research focused on the use of the multilevel statistical technique in order to compare the performance of several contextual variables over economic perceptions at the same time.

## **Key words:**

Comparative Politics – Political Institutions – Electoral Behavior – Latin America

## Introduction<sup>1</sup>

*“Voters are not fools”*  
V.O. Key (1966)

Studying how citizens evaluate the performance of the government and how they take that into account at the time of voting, has given the theorists of democracy sufficient evidence about the incentive that elections create in democratic systems. Throughout the threat of punishment that periodic elections create, rulers should become more sensitive to citizens demands. During the implementation of economic reform in Latin America during the nineties this basic premise of all democracies was questioned. The purpose of this paper is to assess the electoral behavior of Latin American citizens from 1996 to 2004. The main question is whether the perception of the economic situation is considered when citizens vote, and how the institutional design of each country facilitates this possibility of punishment and reward elections.

In fact, in the context of the implementation of economic reform during the 90's in Latin America, the Economic Voting (EV<sup>2</sup>) is the key for understanding the electoral behaviour of citizens. At that time, an important wave of neoliberal reforms took place in almost all countries of the region. The consequences of that process were the rise of unemployment and poverty rates, the stagnation of GDP, and the reduction of the state budget in social expenses, such as several economic studies have shown (Frenkel, 2003; Calcagno 2001; Vergara, 2002). As a result of those negative economic outcomes, from the empirical theory of democracy it was expected that citizens would show their reaction through their votes. Authors like Manin, Przeworsky and Stokes (1999); Geddes (1995); Bresser Pereira, Maravall and Przeworsky (1993) presumed that people would punish the policy makers of those reforms. However, several of those pro economic reformers were re-elected. As a result of that, both the EV approach and the accountability theory were challenged.

As a matter of fact, there was an increasing concern that the mechanism of vote as control did not work in Latin-American countries. There has been an agreement between

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<sup>1</sup> I want to be grateful for all those persons that helped me to improve this work with their comments and suggestions. Specially I want to emphasize the support of Jose Ramon Montero, to whom I continue learning every day. His comments have been an important source to improve this paper. Also Martha Fraile has been an excellent adviser and thanks to her detailed reviews this work has been improved. I am grateful with Michael Lewis-Beck for his suggestions about references as well.

<sup>2</sup> In this work the acronym EV was used to named Economic Voting.

scholars that as a consequence of the weakness of Latin American democracies voters were not rational. Those authors further argued that people did not have in mind the economic situation when they voted and they did not punish or reward rulers with their votes (Hagopian 1993; Remmer 1993; Minujin and Kessler 1993; Mora y Araujo 1995; Levitsky 1998). In this regard, the field of economic voting has been studied by several researchers, but focused on advanced democracies. Less however has been written about Latin America and its paradox.

This paper is an attempt to contribute to the understanding of Latin-American electoral behavior. Its main purpose is to study how the institutional features could affect the clarity in the attribution of government's responsibility for economic outcomes. In that sense, political factors would shape the electoral consequences of economic performance. The kind of electoral system or the kind of government system in place would facilitate a better understanding of government responsibilities. Consequently citizens could punish or reward candidates with their vote. The economic and political contexts where public policies are made are the filter for the perception regarding government responsibility (Palmer y Whitten 2002:67).

In this sense, the results could support two kinds of contributions. First at the empirical level, systematic evidence will be generated in relation to an area virtually unexplored until now. Second regarding to theoretical contributions, the results would help achieve a better understanding of how institutional characteristics could facilitate or hamper the punishment-reward mechanism. The outcomes also would contribute to the understanding of the existence of one dimension of the accountability mechanism in Latin America, for instance the vote as control. The results would suggest that those Latin-American citizens with a better perception of the economy have a greater probability of voting for the incumbent than those citizens with a negative perception of the economy. This would make it possible to disregard the thesis that Latin Americans are not rational voters. In contrast, according with V.O Key (1966 ) I would say that "voters are not fools".

To achieve such aims the argument proceeds in three main parts. This begins by laying out the theoretical dimensions of the research and reviewing previous studies to address how this framework was applied to understanding Latin-American countries. In section 2 the research design is described. Variables, hypothesis and how results support different theories are specified at this stage. The results and discussion were presented in the third part of this paper.

### **Theoretical dimensions and previous studies**

Many different theoretical models have been used to explain how and why people vote (see for example Downs 1957). Such achievements can be summarized into three main approaches: sociological<sup>3</sup> (i.e. Lazarsfeld et al 1944), psychological<sup>4</sup> (i.e. Campbell et al 1960) and rational perspectives (i.e Key 1966). I will focus here on the study of the economic vote within the rationalist explanation. From this point of view, the voter is considered a rational actor that acts taking into account costs and benefits that each candidate can offer (V. O. Key 1966:8). The basis of this theory is the vote as a punishment and reward mechanism: “Governments are “accountable” if citizens can discern representative from unrepresentative governments and can sanction them appropriately, retaining in office those incumbents who perform well and ousting from office those who do not” (Manin, Przeworski, and Stokes, 1999:10). From this approach I selected the softer version known as “limited rationality” (Simon 1955, Lupia, McCubbins y Popkin 2000). This version assumes actors are limited cognitively and by the context. As a consequence of those limitations their rationality is reduced. In face of those limitations actors develop heuristics mechanisms that allow them to make rational decisions with less information (Simon 1955). Such heuristic mechanisms are shortcuts.

The citizen’s evaluation for economic performance of the government is one of these shortcuts. In this study the heuristic mechanism known as Economic Vote (EV) was analyzed. It is based on the study of short-term factors that have an impact on the process of selection of electoral preferences. “Economic voting is an individual level phenomenon that is reflected in the relationship between a person’s perception of the economy and the probability with which she votes for each of the available parties or candidates in an election” (Duch y Stevenson, 2006). This approach presupposes that voters are rational and they choose their electoral preferences as a result of evaluating the economic performance of the government. The core assumption of EV studies is that “The government support will be reduced as a consequence of bad economic times and reinforced by good economic times” (Van der Brug, Van der Erij, y Franklin 2007:54). The great majority of scholars agree with this assumption (Lewis-Beck 1988; Powell y Whitten 1993; Whitten y Palmer 1999; Nadeau y Lewis-Beck 2001; Duch y Stevenson 2006).

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<sup>3</sup> This approach was developed on 40’s as the Columbia Model. Authors as Lazarsfeld concluded the sociological features of voters determine that vote.

<sup>4</sup> The psychological approach was known as Michigan Model. It was developed during 60’s and it explained the vote as a result of party and ideological identities (Campbell, Converse, Miller and Stokes 1960: 137); “direct psychological attachment to a particular party (...) Party identification has the function of ensuring poeple’s lasting attachment to a political party” (Berglum, Holdberg, Schmitt, and Thomanssen 2005).

Despite this agreement, literature within EV has emerged that offers contradictory findings about which kind of perceptions of economic situations affects the vote. Within EV two pairs of perceptions of the economy can be mentioned Lewis-Beck (2007): one, focused on the past economic outcome of the administration (retrospective view) (V.O. Key 1966) and another centered on expectations about future economic trends (prospective view) (Fiorina 1981:196); in the other two, one related to personal economic situations (egotropic/pocketbook view) (Bloom y Price 1975; Kramer 1971); and the other focused on the state of the national economy (sociotropic view) (Kinder y Kiewiet 1981:132). These four views show the different logics that citizens use to hold government accountable for economic outcomes (Fraile 2007:5). Because most studies on EV have only been carried out in advanced democracies, there are no findings about the kind of economic perception that affects voter intention in Latin American countries. For this reason this study assesses the retrospective; the prospective; the sociotropic; and the egotropic views.

One of the virtues of the economic vote approach is that it deals directly with accountability –one of the principal mechanisms of representative democracies. This perspective states that citizens punish and reward incumbents via the exercise of the vote (Maravall 2003).

On the other hand, this theoretical selection has disadvantages as well. Despite the great coherence of the theoretical argument of EV, the empirical results are rather controversial, and there is no general agreement about its relevance. One of the important contributions of EV suggests that economic factors have a strong influence on vote in some countries and years but is unstable and meaningless in other countries and periods (Paldam 1991:26). This instability of results sometimes has been attributed to the influence of the context (van der Eijk; van der Brug; Kroh y Franklin 2006:444). The ideal of democratic accountability requires that voters recognize the important political outcomes and assign responsibility for those results appropriately (Palmer y Whitten 2002:66). In this sense an important key is that citizens can make government accountable for economic outcomes. In holding the government accountable for economic outcomes the institutional design might affect the clarity in assigning responsibilities (Palmer y Whitten 2002:67). If citizens do not distinguish who is responsible for economic outcomes, then they can reward “bad” politicians and punish “good” politicians weakening the accountability mechanism. To get valid conclusions about the real impact of EV in Latin America it is necessary to establish whether institutional features facilitate or impede the assigning of responsibilities to the government for economic outcomes.

In recent years, an important amount of literature discussed the impact of institutional context on the relationship between economic perception and the vote. The Powell and Whitten (1993) study was the reference for this approach. These authors created the concept of “clarity of responsibility” following the idea that political factors shape the electoral consequences of economic performance. They classified the political systems in which the attribution of responsibility to the government for economic outcomes was clear and easy and where the opposite was true. Lack of clarity is a consequence of multiparty systems, bicameral opposition; or scenarios with veto players. The main assumption of their work is that the greater the “clarity of responsibility” that institutional design allows, the stronger the effect of economic perception on the vote (Powell y Whitten 1993:410).

### **Argument and Hypotheses**

The aim of this paper was to test the impact that EV has had in Latin America between 1996 and 2004, and to analyze the influence of the institutional context of each country in the assigning of responsibility to the government for economic outcomes. In order to obtain these goals three hypotheses were tested:

In the first place, if the perception of the economic situation was used to decide the vote for a candidate, the data should show:

**H1.** The better the perception of the economic situation (past or future) the higher the probability to vote for the incumbent, rewarding at party government for good economic outcomes.

To test H1, I analyzed whether regression coefficients are positive or negative. With this in mind I performed a logistic regression analysis expecting to obtain positive coefficients<sup>5</sup>. If these results proved to be true they would generate contributions to reinforce the economic voting theory. Testing the different kinds of perceptions of the economic situation I generated empiric evidence supporting the sociotropic view (Kinder y Kiewiet 1981: 132) against the egotropic view (Bloom y Price 1975; Kramer 1971); and the retrospective view (V.O. Key 1966) against the prospective view (Downs 1957) or vice versa.

In the second step, I compared the logistic regression results according to the institutional context to determine the influence that each context has on the EV.

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<sup>5</sup> This kind of data would be showing that if the voter has positive evaluation of the economic situation (value 1) he has vote intention for the incumbent (value1) as well. The analysis was performed with dummy variables that indicated with value 1 if the voter considered that the economic situation (personal or national) was or will be good and with the value of 0 if the voter considered that the economic situation was the same or bad. I test the data with a variable that included the three categories (good, the same or bad) and the results were the same. To offer a simplest interpretation of regression coefficient I preferred to used the dummy variables.

**H2.** The influence of EV was strongest where the institutional context allows citizens more clarity in the attribution of responsibility to the government for the economic outcomes.

The institutional contexts which allow more clarity are: a unified government; bicameralism without opposition; majority for the president's party within Congress; re-election according to the law; presidents who effectively ran for re-election; and a reduced number of parties. Among the institutional factors I checked are: Institutional (Powell y Whitten 1993; Anderson 2000; Nadeau et al 2002; van der Eijk et al 2001); related to presidentialism (Lewis- Beck y Nadeau 2001; Rufolp 2003); and Latin American factors.

Within the institutional factors, the influence of unified or divided government was evaluated. In the former scenario stronger positive coefficients of EV were expected. In the case of bicameralisms, in countries without bicameral opposition a stronger positive coefficient of EV were expected. Then dynamics institutional factors were tested as well. From this kind of factors the influence of presidential support in congress was estimated. In countries where the presidential party had bigger percentages of sits a highest coefficient of EV was expected. Then, the Effective number of competitive parties (ENCP) Laakso y Taagepera (1979)<sup>6</sup> was calculated. In countries with a lesser number of competitive parties a higher positive coefficient of EV was expected.

From factors related to presidentialisms I tested the presidential re-election. As Gélinau (2007:415) highlighted: "The centralized nature of the presidential regimes and the relatively low level of institutionalization of the party systems of the region may obscure the attribution of economic responsibility, especially when incumbent president is not running for reelection". Gélinau replicated the Lewis- Beck y Nadeau (2001) analyses for Latin American countries and he found that the possibility of presidential re-election was an important factor in determining clarity in the attribution of responsibilities in Latin American presidentialisms. I tried to confirm this result in countries with re-election and in countries where this possibility was prohibited. But I also tested the effect of EV distinguishing those countries with re-election where the president effectively ran for re-election. A higher positive coefficient of EV in countries with re-election (effective and by law) was expected.

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<sup>6</sup> The ENCP is an index developed by Laakso and Taagepera in 1979, to measure the fractionalization of party system. It was calculated in the following way:  $N=1/\sum_{i=1} pi^2$

where  $pi$  is the proportion of shared votes by each party and  $\sum pi^2$  is the sum of the square percentages of votes received by each party. The previous election was taken as reference.



**H3.** Besides the factors that affected EV in advanced democracies, in Latin American countries intrinsic features of the region influence the clarity in the attribution of responsibilities.

The intrinsic features of the region that influence the clarity in the attribution of responsibilities are: trust in the democratic system; level of stability of voting patterns; level of party system stability; level of electoral system stability<sup>7</sup>.

Trust in democratic system was included as a proxy of democratic consolidation. If citizens are not satisfied with democracy or distrust the effectiveness of democracy, then they would vote randomly and the accountability would become meaningless. Questions about satisfaction with democracy and election effectiveness were included to control this possibility. The stronger the democratic support and the belief on election effectiveness, the higher the probability to vote for the incumbent.

The second factor, the stability of voting patterns, is related to volatility. In the case where citizens change preferences and heuristics from election to election, the results obtained would be in a haphazard way. To control that I first evaluated if there are relatively stable voting patterns and then I studied the accountability mechanism. To avoid the endogeneity problem that the inclusion of volatility index could create in my regression analysis I developed an alternative strategy. I estimated regression analyses by countries and classified countries with stable voting patterns and countries where the factors associated to the vote changed from election to election. Then I checked if results were constant along both kinds of contexts or if there were some differences. A higher clarity in the attribution of responsibility and a higher coefficient of EV in context with stable voting patterns was expected.

The third factor was the permanence of a stable party system. If the competitive parties change from election to election then the attribution of responsibility would be unfeasible. For instance, in a country in which the current presidential party disappears for the next election the punishment and reward mechanism would disappear as well. Taking into account that I was interested in studying the stability or change in party systems I calculated

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<sup>7</sup> In order to establish which factors would affect the assigning of responsibilities to the governments in Latin America I studied the accountability concept. To fulfill all the attributes that its concept requires some assumptions should be warranted. These are: support for democracy; existence of voting patterns; party system stability; electoral system stability. In case one of these could not be warranted the attribution of responsibilities might fail. As a consequence, politicians would become unaccountable.

differences in the effective number of competitive parties from election to election<sup>8</sup>. In countries with a more stable effective number of competitive parties a higher magnitude of EV was expected.

Finally, considering that stability of rules is the key element to make rational calculations, the assumption of stability of the electoral system was evaluated. Moreover the stability of the electoral system was not the rule in Latin America either (Benton 2005). I took up the Karen Remmer (2008) study to measure the electoral reforms that took place in Latin American countries from 1978 to 2002. I evaluated and classified the countries where electoral rules to elect the president changed and where these were stable. I did the same for the electoral rules to elect representatives. In contexts with more changes in electoral rules, lesser clarity and as a consequence lower probability of EV was predicted.

### **Research Design**

In order to achieve the aims of this work I adopted an area study from 16 countries of Latin America<sup>9</sup> (Urbani 1988; Lijphart 1976; Sartori 1984; and Collier 1993). The main goal was to evaluate the impact that the institutional context has on the attribution of responsibility to the government for the economic outcomes. I studied how the different institutional configurations of each country could facilitate or hinder the attribution of responsibility and as a consequence how the accountability mechanism was affected. I summarized the previous studies in three broad categories of institutional factors that could affect this process of assigning responsibility: institutional static factors; institutional dynamic factors; and presidentialism factors. Then I identified a new block of factors related to intrinsic features of Latin American countries.

In order to evaluate the influence that each kind of factors had on the attribution of responsibility I built a huge dataset pooling individual data from 16 Latin American countries for the years 1996, 2000, and 2004. The individual variables included were the most relevant to explain the probability of voting for the incumbent<sup>10</sup>. Then I added 10 new country

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<sup>8</sup> The formula was  $ENCP(t1) - ENCP(t2)$  in where (t2) was the election in 1996; 2000 and 2004 and (t1) was the previous election to each year mentioned.

<sup>9</sup> Those countries are: Argentina; Brazil; Costa Rica; Chile; El Salvador; Guatemala; Honduras; Mexico; Nicaragua; Panama; Paraguay; Peru; Uruguay and Venezuela. All those plus Ecuador were the countries gathered by the Latinobarometer public opinion project. Ecuador was excluded from the analysis because the questionnaire gathered did not include the question about the future perception of the economy.

<sup>10</sup> All individual data were provided by the Latinobarometer dataset. It made it possible to control the comparability of data across countries because the Latinobarometer has a similar design; procedure of interview; and data coding in each of the 16 countries. The variables included were results of previous analyses that I could not include here. These previous studies were regression analyses estimated by logit function. In the current data set the variables that better explained the probability of voting for the incumbent in 1996, 2000, and 2004

variables that measured the 4 kinds of institutional factors previously mentioned. The values adopted by those country variables were related to the contextual information that each country registered in 1996; 2000; and 2004. Such variables were: kind of government; bicameralism opposition; percentage of seats of presidential party (House of Representatives); kind of party system (following numeric criteria and Sartori's classification); re-election; effective re-election; stability or changing voting patterns; stability of electoral rules to elect president; stability of electoral rules to elect representative; level of stability/change of party system<sup>11</sup>.

To achieve the aims proposed a two-stage comparative design was carried out. In both stages statistical techniques were selected according to my dependent variable (cross-tabs; correlation; logistic regression and GHML regression). The first step was based on estimating a base-line model of logistic regression analysis splitting the sample by context and comparing the results. This analysis was performed to evaluate the statistical efficiency of EV coefficients in each kind of context. The second step was focused on the use of the multilevel technique. Individual and contextual variables were articulated within a design of a multilevel analysis, starting with hierarchical data per country. This particular design led to reliable conclusions about the way in which the institutional framework influences the attribution of responsibility to the government for economic outcomes. Given that the analysis proposed here included 16 democracies, I had enough variation at a contextual level to test the hypothesis of how different institutional designs affect the economic vote. The SPSS 15.0 and Stata 10.0 programs were used to perform the regression analysis in the first stage, and HLM 6.0 was used to carry out the multilevel analysis.

One of the most salient features of electoral behavior studies is the use of voting preferences as a dependent variable. In this work, a dummy variable was computed according to the procedure followed by Manin, Przeworski and Stokes (1999). Because the questionnaire only registered the question of voting intention, this item was re-codified in a new variable

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separately, were included. In those regression analyses explanatory variables of different voting models were included, for instance economic vote; party ID and ideological vote; and sociologic voting. Such logistic regression analyses followed rigorous control methods of residuals; goodness of fit; multinomial regression analyses to control undecided electorate segments; sample bias; ANCOVA analysis with dummies by country; split regression analyses by country and year. After all those estimations I was able to select the best statistical model that better explained the probability to vote for the incumbent. I used it as a base-line model for the current analyses.

<sup>11</sup> The sources of all those contextual variables were: *Political Institution Dataset from Democracies in Development: Politics and Reform in Latin America* (Payne, Zovatto, Carrillo Flórez, Allamand Zavala 2002: Inter-American Development Bank); *Political dataset of Americas* from Georgetown University; and Cavarozzi and Abal Medina 2002.

called ‘vote for the incumbent’<sup>12</sup>. This dependent variable only has two answer categories: one (1) and zero (0). This takes the value one when the voting preference is for the incumbent and the value zero for all other different voting choices. The main drawback of this strategy is that it only works with positive voting intention. In other words, the *do not know* and *no answer* categories were excluded from the analyses. As a consequence of that the sample size of the analyses was reduced. To control this problem and to avoid the risk of bias, I replicated the analyses with a multinomial variable that included the *do not know* and *no answer* categories into the analyses. The results were similar. The advantage of using this strategy is that it reduces the endogeneity problem. To control this risk even further, I followed the strategy of Fernández-Albertos (2006) applied to study EV in 15 European countries. He introduced a control variable that measured the ideological distance from the incumbent. The variable was computed calculating the ideological self-placement in left-right scale of each individual minus the mean of ideological self-placement in left-right scale from interviewers with vote intention for the incumbent. This way I could control the direction of causality of my explanation. According to Fernández-Albertos, 1996:35 *“If the correlation between economic evaluations and voting patterns persist after controlling for ideological distance, we can be much more confident that individual economic evaluations have an independent effect on probability of the voter voting for incumbent”*.

I adopted the explanatory variables from the economic vote approach. The selection of the perceptions of the economy as independent variables is the best way to measure the state of the public opinion about the economy<sup>13</sup>. In order to facilitate the reading of the regression coefficients I transformed the original question into four dummy variables. The dummy variables take the value one when the answers that evaluated the economic situation are “better” (retrospective; prospective; sociotropic and egotropic) and the value zero when the answers are: “the same” and “worse”. I made this decision because I was specifically interested in measuring whether those citizens who had a better perception of the economic situation had the intention to vote for the incumbent; or if those citizens who did not consider the economic situation as better had a different voting intention. A positive value of the

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<sup>12</sup> The original question was: If elections were to be held next Sunday, which party would you vote for?

<sup>13</sup> The questions and the answer scales about the economy perceptions were repeated in every questionnaire analyzed. In every case the answers were distributed in a scale with 3 levels in which value 1 is “better”; 2 is “the same”; and 3 is “worse”. (SP2) Do you consider the current economic situation “better”, “the same”, or “worse” than 12 months ago? (SP3) And in the next 12 months do you think that the economic situation in general will be “better”, “the same”, or “worse”? (SP5) Do you consider your current economic situation and your family economic situation is “better”, “the same”, or “worse” than 12 months ago? (SP6) And in the next 12 months do you think that your economic situation and your family economic situation in general will be “better”, “the same”, or “worse”?

coefficients was expected. I included in the equation another two variables related to the broader models that consider that social policies should be included to explain the citizens evaluation of government performance (Fraile, 2005). The reason for including these two variables was that they are straightforward ways of measuring aspects that citizens consider relevant to evaluate the state of the economy (Carlsen, 2000:141-150). I included the perception of poverty. This variable was measured in a scale with 5 answer categories taking the value one when the answer is “*increase a lot*” and the value five when the answer is “*decrease a lot*”. A positive value of the coefficient was expected. The second variable was about how the health system was perceived. This variable measures the quality of hospitals in the last 12 months on a scale of 5 answer categories. It takes the value one when the answer is “*the quality increased a lot*” and the value five when the answer is “*the quality decreased a lot*”. Therefore, a negative value of the regression coefficient was expected<sup>14</sup>.

In order to select the control variables, I used previous studies related to voting models. Those works marked the importance of sociological and psychological variables in selecting the vote. I included these variables in the analysis to control the effect of EV variables<sup>15</sup>.

Because the high percentage of religious people in Latin America - about 90% of the interviewed declared belonging to a religion (mainly Catholics) - I included the question: how religious do you consider yourself? The answer scale ranges from value one: very devout, to value four: not devout<sup>16</sup>. In order to get a significant result I should get a negative regression coefficient. I also included the following socio-demographic variables: sex (value 0: men; value 1: women); age<sup>17</sup>; education level<sup>18</sup>; income level<sup>19</sup>; and a dummy variable that takes the value one when the interviewed declares to be unemployed<sup>20</sup>.

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<sup>14</sup> Only these two variables were included to avoid the collinearity problem. I evaluated several variables and among the variables with a theoretical interest the poverty and the quality of health services have reported better statistics.

<sup>15</sup> All the control variables included were standardized and were measured on a scale between 0 and 1. This exercise allowed me to compare the effect of each variable directly because they shared the same unit of measure. A change in anyone of these represented a change from the minimum effect to the maximum effect. The standardization formula followed the metric transformation:  $K = (X - X_{min}) / (X_{max} - X_{min})$  where K is the transformed variable and X the original variable.

<sup>16</sup> Before selecting this question I ran the analysis with different questions that measured religiosity (church attendance; religious denomination, etc). All the variables showed a similar pattern.

<sup>17</sup> Having in mind that the relationship between the age and the vote can vary by segments, I made several statistical tests to control the effect of different age segments. In no case was the age significant statistically and for this reason I included the original variable.

<sup>18</sup> The original answer scale takes seven values where value one represents without studies and value seven 4 year college completed.

<sup>19</sup> The original answer scale takes a four values scale where value one represents all needs covered and value four has difficulties to cover the basic needs.

<sup>20</sup> In the framework of a sociological approach, thanks to the Mainwaring and Torcal (2004) study, I had enough statistical support about the weakness of class voting in Latin America. For this reason I only included a control

Lastly, I included the level of trust in the church, as a way to control the religious vote<sup>21</sup>. The argument behind this analysis was that people that were confident in the church were more tolerant of the negative effects of economic reforms, were more conservative and were more likely to vote for the incumbent. For this reason a negative regression coefficient was expected.

In addition, from the psychological approach I included the ideological self-placement in the left-right scale<sup>22</sup>. This question was measured in a scale of eleven values from 0 to 10<sup>23</sup>; it takes the value zero for the left answers, the value 5,5 for the central positions, and the values close to ten for the right. This variable was transformed as previously mentioned to avoid the endogeneity problem.

## Results

The whole dataset included a total of 51760 cases, 17405 from 1996; 17517 from 2000; and 16838 from 2004. The individual observation number from each country varied from a maximum of 3900 for Venezuela and a minimum of 1800 for Paraguay. The mean number individual of observations by country and year was 1200. In relation to the distribution of country variables 70% of the context corresponded to divided government and the other 30% were for unified government. Between bicameralisms 35% had an opposition chamber and 65% without that opposition. Regarding to the kind of party system linked to the effective number of parties 11,2% were predominant party systems to bipartisan systems (between 0 and 2.5 parties in the system); 38% were bipartisan systems to multi-partisan systems (between 2.51 and 3.5 parties); 25.3% were moderate multi-partisan systems (between 3.51 and 5.5 parties); 19,5% were polarized systems (between 5.51 and 8 parties); and lastly 6% were atomized party systems (more than 8 parties in the system). The 28% of scenarios had the possibility of re-election and the other 72% prohibited this possibility. In addition from this 28% only 13.5% of the presidents ran effectively for the re-election. Related to the stability of voting patterns, I previously estimated regression analyses by country and year and having these results as a baseline I classified the countries with stable

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variable of unemployment. The original question was: Which is your current work situation? The original answer scale was: 1 (independent worker); 2 (civil servant); 3 (employed in the private sector); 4 (temporarily out of work); 5 (retired); 6 (does not work); 7 (student).

<sup>21</sup> The inclusion of this variable was supported by exploratory analyses that reported an important association between the level of trust in the church and the perception of the economic situation.

<sup>22</sup> Here I have to highlight that I consider party ID to be a better indicator of the psychological approach for Latin America. The party Identification attachment was included only in the 1996 questionnaires. It was included for the 1996 analysis. The original question was: In relation to political parties how do you feel: very close; fairly close; only a sympathizer; or not close to any political party?

<sup>23</sup> The original question was: In politics people usually talk about the “Left” and the “Right”. On a scale where value 0 is the left and value 10 is the right, where do you place yourself?

and unstable voting patterns. 49,3% of countries had alternant voting patterns and the other 50.7% of countries had stable voting patterns. The 12.8% of countries had changes in the rules for electing the president, while the 87.2% of country had kept the electoral system stable. Turning now to the stability or change in the party system 41% of countries had no changes; 44% had a mean level of change; 8.5% were scenarios with a high level of change and 6.5% were scenarios with extreme changes (more than 4 parties of difference from election to election).

#### Splitting the sample according to contextual factors

##### - The Base-Line model:

In the first stage of this study, I estimated a logistic regression analysis for the entire dataset in order to get the base-line model to explain the vote of Latin American citizens from 1996 to 2004. Those results were used as a reference to compare then the results for this base-line model but splitting the sample by each kind of institutional contexts. Consequently, in the second step the dataset was split according to the different institutional contexts and the base-line logistic model was performed again to estimate the impact of the EV within 27 different contexts<sup>24</sup>. I analyzed whether the regression coefficients were positive or negative according to my assumptions; whether they were statistically significant; and finally I evaluated the magnitude of the impact of the obtained regression coefficients. In the following lines I described the results obtained.

##### - Impact of institutional factors on the EV

The first set of institutional factors analyzed were those studied by Powell and Whitten (1993). Such work was the first one and it established the bases of the lines of research about how institutional design affects the clarity in assigning responsibilities. This study was developed for parliamentarisms, and for this reason I could not evaluate all the key variables studied for those authors. Despite that I adapted two of their most relevant variables for presidential systems. These were: the degree of government support, that is to say if the

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<sup>24</sup> Those are: unified government; divided government; bicameral opposition; bicameralisms without bicameral opposition; high level of support for the presidential party in Congress; average level of support for the presidential party in Congress; low level of support for the presidential party in Congress; predominant party systems to bipartisan systems; bipartisan systems to multi-partisan systems; moderate multi-partisan systems; polarized multi-partisan systems; atomized party systems; countries with re-election; countries without re-election; countries where the president runs effectively for re-election; countries where the president did not run for re-election; countries with stable voting patterns; countries with alternant voting patterns; countries that change the rule to elect the president; countries with stable electoral systems for presidential elections; countries that change the rules to elect the representatives; countries with stable electoral systems for representatives elections; countries with stable party systems; countries with an average level of change in the party systems; countries with a high level of change in the party system; countries with an extreme level of change in the party system.

presidential party has a majority in the House of Representatives (unified government) or not (divided government). And the second variable was related to bicameralism and it distinguished between countries with bicameral opposition – that is to say countries where the opposition party had the majority in the Senate- or bicameral countries without opposition – that is to say countries where the government party had the majority in the Senate. The critiques aimed at this type of research were not long in coming. Authors as Anderson 2000; Nadeau et al 2002; and van der Eijk et al 2001 criticized this first study for being too rigid. They suggested going in deeper including dynamic factors such as party competition and the distribution of power between contenders. As in the previous factors I had to adapt the key variables to presidential contexts. The first selected variable was the degree of support for the presidential party in The House of Representatives and it was measured as the percentage of seats shared obtained by the government party. This variable showed the scope of the executive power to have its plan approved by Congress.

The second variable was the effective number of competitive parties. This was transformed into a classification of party systems following Sartori's criteria (1976)<sup>25</sup>. Based on the distribution of the ENP (Effective Number of Parties) variable and in order to assure a certain degree of variation of the new variable, it was recoded as follows: from the predominant party system to bipartisan system (from 0 to 2.5 parties); from bipartisan system to the moderate multi-partisan system (from 2.51 to 3.5); moderate multi-partisan system (from 3.51 to 5.50); extreme party system (from 3.51 to 8); and polarized (more than 8 parties). Table 1 shows the results.

**(Here Table 1: Base-Line model and impact of institutional -static and dynamic-factors)**

In the first column of table 1 the base-line model results were presented. The number of observations was of 19,874. The  $r^2$  statistic showed an improvement of 5%<sup>26</sup> on the variance of the likelihood of voting for the incumbent. This first estimation showed that the different indicators of economic perception were statistically significant. The sociotropic perceptions, both past and future were positive and statistically significant with a p-value of 0.001. The egotropic perception was also positive but with a p-value of 0.01. The perception of poverty was relevant with a p-value of 0.05 but it was negative; that is to say, inverse to my

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<sup>25</sup> Sartori's classification distinguished between predominant party systems; bipartisan systems; moderate multi-partisan systems; extreme multi-partisan systems; and polarized systems.

<sup>26</sup> Here, it is necessary to highlight that although the  $r^2$  statistic was an indicator of the goodness of fit of the model, the comparison between estimates of the impact of different contexts on the economic vote is limited by the variation of the number of observations of each regression analysis.



assumption. The perception of the health system was significant at the level of p-value  $< 0.01$  and negative, as expected. When citizens considered that hospitals quality decreased, the probability of voting for the incumbent was lower. The ideological self-placement was relevant but only with a p-value of 0.05. Between sociological control variables the education level (with a negative term) and the age (with a positive term) were significant. The satisfaction with democracy was significant at the level of p-value  $< 0.001$  with a positive coefficient. The higher the satisfaction with democracy, the greater the probability for citizens to vote for the incumbent. The effectiveness of elections; sex; and trust in church were not statistically significant.

In order to prove that Powell and Whitten (1993) findings are true I must find a higher and a more significant coefficient in those scenarios with unified governments and in bicameralisms without opposition. This assumption was proved clearly according to past sociotropic perceptions of the economy. The coefficient increased in contexts with unified governments and decreased in contexts of divided governments. The same occurred with bicameralisms without opposition. But the results did not show a clear pattern related to prospective perceptions of the economy. These perceptions reduced the coefficient magnitude on unified governments and increased it on divided governments. On the contrary this perception proved to be true according to bicameralisms with opposition. The egotropic view did not change between divided and unified government scenarios and it behaved contrary to expectations related to bicameralisms.

Following the findings related to past sociotropic perceptions, Powell and Whitten's (1993) hypothesis and Rudolph's (2003) reformulation for presidentialism had ample support. On the other hand the evidence related to prospective sociotropic and egotropic views was not clear. In this sense, the findings seem to agree more with Lewis-Beck and Nadeau's (2001) conclusions. According to them divided government does not influence the clarity in assigning responsibilities to the government for economic outcomes.

The poverty coefficient modified the relationship with the probability to vote for the incumbent. On unified government contexts the poverty coefficient became positive. According to this, voters that believed that poverty had decreased were more likely to vote for the incumbent. In these contexts the attribution of responsibilities seemed to be clear and the poverty variable became significant at the level of p-value  $< 0.001$ . The odds ratio was 0.75 in divided government and became 2.06 at unified government scenarios. In this sense,

divided government contexts seemed to be more confusing scenarios to hold the government accountable.

The perception of the health system lost significance at unified government. The ideological identification variable was the more sensitive variable in regards to static contextual factors. While the magnitude of the coefficient increased at unified government and without bicameral opposition; it lost significance at divided governments and with bicameral opposition.

Moving on to dynamic factors, to prove Anderson 2000; Nadeau *et al* 2002; and van der Eijk *et al* 2001 hypotheses to be true I should find that the EV coefficient increases in magnitude and significance in those contexts where presidents have more legislative support. Related to the effective number of parties variable these authors returned to the Anderson approach. This implies that the lower the number of competitive parties the higher the EV magnitude (Anderson 2000:156). Looking at table 1 introducing the legislative level of support for the president variable, sociotropic past and future views maintained their significance with a p-value of 0.001. In spite of that the EV coefficient showed the same pattern as in the case of kinds of government variable. The sociotropic past perception of the economy fulfilled the theoretical expectation. It increased its coefficient when the president had a higher support in the House and it reduced its coefficient when president had a lower support in Congress – the odds ratio was 1.71 with higher support scenarios and 1.33 with lower support scenarios. On the contrary, the future sociotropic and egotropic perceptions of the economy did not show a clear pattern again. These results seemed to envision a preliminary finding about the different logic that affects each kind of EV perception. While the past sociotropic view was clearly affected by the level of clarity that assigning responsibilities had; prospective views seemed to be more independent regarding to the context. The perception of poverty level changed the coefficient again in context with higher support for the president in Congress. The perception of health services was not significant in context of a higher level of support in the House. But it was still significant and negative as expected in all other kinds of contexts.

The ideological self-placement without the incumbent effect increased its impact in comparison with the average results. The correlation was positive, that is to say the more conservative the position of citizens the greater the probability of voting for the incumbent. This variable showed great sensitivity to the level of presidential support in the House losing its significance in context when that support was low. The satisfaction with democracy was significant at the  $p = 0.001$  level. When support was lower, this variable had a higher impact;

this seemed to show that in contexts with problems of governability the influence on satisfaction with democracy was strongest. The influence of elections; age and trust in the church were only significant in contexts with a high level of presidential support in the House. Education and sex were significant across all contexts.

Regarding the effective number of parties, within a context with the smallest number of parties, the retrospective and prospective sociotropic evaluations reduced the coefficient magnitude in comparison with the base-line results. In contrast, the ideological self-placement had the highest impact at the  $p = 0.001$  level. Then in bipartisan and multi-partisan scenarios the ideology lost its significance while the sociotropic prospective view had a higher impact. The coefficient of this last variable was 0.89 in multi-partisan contexts and 0.75 in bipartisan contexts. The retrospective view reduced the coefficient magnitude in bipartisan systems and had a higher impact in multi-partisan systems. It is apparent from this table that the higher the number of parties the lower the clarity of responsibility attribution to the government. The egotropic view lost its significance level in extreme multi-partisan and polarized systems; the sociotropic prospective and retrospective view reduced the level of significance from  $p = 0.01$  to  $p = 0.05$ . In the same scenarios the ideological distance from the incumbent increased its significance at  $p = 0.001$  level and the magnitude of its impact increased with the number of parties in the system.

#### - The impact of Presidentialism and Latin American factors on EV

In this section I analyzed the impact of two kinds of institutional factors. The first one is the factor related to the presidentialism format of governments in Latin America. Rudolf (2003) and Lewis-Beck and Nadeau (2001) applied the framework used for parliamentarisms re-adapting the contents to the American presidentialism. Both works arrived at different conclusions regarding the impact of the presidentialism format. Lewis-Beck and Nadeau (2001) stated that the divided government did not affect the EV while the most important influence that these authors recognized was the presidential re-election. Later on, Gélinau (2007) applied the same analysis to Latin American countries. Here I add the possibility of distinguishing not only countries where the re-election was recognized by law but also countries where the president ran for re-election effectively.

The second kind of factors is related to the particular institutional features of Latin American countries. I included the distinction between countries with stable patterns of

voting<sup>27</sup> and alternative voting patterns. In this way I tried to include the assumption of some articles that a high level of electoral volatility would lack the accountability and EV influence (Roberts and Wibbels 1999; Bengtsson 2004). Another Latin American factor studied, was the stability/instability of electoral rules for presidential and representatives elections<sup>28</sup>. The last dimension of Latin American countries was the stability/instability of party systems<sup>29</sup>. In context with stability (partisan or electoral) a higher magnitude in EV coefficients was expected. Contexts with a higher level of change could generate confusion and lack the attribution of responsibilities to the government. Table 2 showed the results.

**(Here Table 2: Base-Line model and impact of presidentialism and Latin American intrinsic factors)**

Following the argument of Lewis- Beck and Nadeau 2001; and Gélinau 2007, the attribution of responsibility is less clear in contexts where the re-election is prohibited by law and the president must be replaced by another candidate. As a consequence in scenarios where the president ran for re-election a strongest EV coefficient was expected. Table 2 is quite revealing in several ways. First, unlike the previous tables the prospective and the retrospective views have the same behavior. The sociotropic retrospective and prospective and egotropic prospective views varied substantially from scenarios with legal and effective re-elections and without the possibility of re-elections. Secondly, for each measure the re-election possibility (lawful and effective) increased the coefficients magnitude regarding the base-line model results and in comparison with scenarios without re-election. Thirdly, all variables that measured the EV maintained the significance level of prediction at  $p = 0.001$  for all scenarios related to presidentialism. The result that emerges from the data is that the re-election possibility (lawful and effective) were scenarios with more clarity of responsibility than those where the re-election possibility was not present. For instance, the pattern for poverty and health system evaluations was not clear. Contrary to expectations, this last variable reduced its significance in context with effective re-elections and lost it in scenarios with re-election.

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<sup>27</sup> Countries with stable pattern of vote were those in which the same type of explanatory variables of the vote (sociological model; psychological; rationalist) were significant for 1996; 2000; and 2004. On the contrary, the countries with alternative patterns of vote were those countries where different types of explanatory variables were significant to explain the vote.

<sup>28</sup> The variable electoral system changes identified with value one countries and years were changes occurred and with value zero the stability of electoral rules.

<sup>29</sup> The variable party system change measure the level of change in the number of parties of each country/year. In the first place I calculated the differences in the effective number of parties between elections for each country. Then I transformed this variable into 4 categories: “*without change*” when the difference was from 0 to 0.8; “*low level of change*” when the difference was from 0.81 to 2; “*high level of change*” when difference was from 2.01 to 4; “*extreme change*” when the difference was higher than 4.

The ideological self-placement without the incumbent effect variable also varied with re-election. This increased its magnitude in scenarios with re-election and altered the sign of its coefficient. From this data it is possible to see that in re-election scenarios the left ideological position increased the probability of voting for the incumbent, while in no re-election scenarios the right ideological position increased the same probability. The satisfaction with democracy variable was significant at the level of  $p = 0.001$  and increased its impact in re-election contexts. The education variable maintained a negative and a highly significant correlation with the probability to vote for the incumbent in almost all scenarios.

Latin American institutional factors also showed important results. For instance, the EV showed a positive correlation at a level of  $p = 0.001$  not only in countries with stable voting patterns but also in those countries where different types of explanatory variables were significant to explain the vote throughout time. As a consequence it is possible to conclude that despite the high level of electoral volatility in Latin American countries the EV was confirmed. The better the perception of economic situation the higher the probability to vote for the incumbent in countries with stable and alternating voting patterns. In the context of changing the rules for presidential elections, the sociotropic retrospective view lost its significance. It is apparent from these results that when there are changes in the electoral system, the attribution of responsibility became more confusing and it blocked the possibility of exercising the retrospective accountability. On the contrary, in scenarios with stability in the rules for presidential elections, the attribution of responsibility was clear, allowing the retrospective accountability. The coefficient of the sociotropic retrospective view in this last scenario became stronger than in the average results. In spite of the great sensitivity that the sociotropic/restrospective view showed, this was not the case for the sociotropic prospective view. While the sociotropic prospective evaluations maintained their impact and level of significance in both contexts, the egotropic prospective evaluation presented a higher impact in scenarios of change. The ideological self-placement without the incumbent effect lost its significance in contexts of change but became relevant in scenarios of stability. The impact of the satisfaction with democracy increased in scenarios of change of electoral rules.

Concerning the influence of changes in party systems the results were not consistent. The sociotropic retrospective view had a higher impact on scenarios with no change than in scenarios with low and extreme levels of change. But in scenarios with high levels of change it increased its impact. For instance the sociotropic prospective view had the higher impact in contexts with no change and low levels of change, then when the party system increased the change it reduced the effect. Following these results it is possible to conclude that in relation

to the sociotropic prospective control when the change in the party system was greater, the attribution of responsibility became less clear. The effect of the change in party system was not clear in relation to the egotropic view.

Concerning the impact of change in party system on the ideological positions of voters, this variable lost its significance in the context of profound change. The education maintained its impact and significance in almost all scenarios; it only lost its significance in the context of extreme change.

#### Multi-level analysis

Up to here, some clear patterns arise about the impact of several institutional configurations on the clarity of responsibility attribution. In order to obtain a final conclusion about the impact of all factors analyzed at the same time, that is to say in the same equation, I performed a multi-level analysis<sup>30</sup>. This analysis allowed me to control the effect of each kind of context jointly. For this reason I estimated a multilevel regression model (ML) known as Generalized Hierarchical Linear Model (GHLM) for two levels (individuals nested in countries<sup>31</sup>). This kind of approach presents some advantages respective to the single-level multivariate framework, because it gave better-calibrated uncertainty estimates of individual parameters. According to Snijders and Bosker (1999:38) “The best way to analyze multilevel data is an approach that represents within-group as well as between-group relations within a single analysis, where ‘group’ refers to the unit at the higher levels of the nesting hierarchy.”

The results are presented from the simplest equation to the more complex. All contextual variables were tested but in order to provide a clear interpretation of results and taking into account the great complexity of this multi-level model only the most relevant

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<sup>30</sup> The use of a multi-level analysis is supported for three main arguments. The first one is empiric. This refers to the considerable variation across country of my dependent variable, voting intention. The second one is statistic and it concerns to the hierarchical structure of the data. One of the assumptions of the simple regression model is that observations and residuals are independent from each other. The way of data collection of Latinobarometer survey is by country. The sampling procedure is probabilistic by country, and then they add all the country information in the same dataset. To perform a simple regression analysis with this kind of data implies the possibility of violation the assumption of independence of residuals and observations. Performing a multi-level regression analysis allows to reduce this risk and to recognize correlated structures of residuals. The last argument is theoretical and is the principal reason to do a multi-level analysis. As was previously mentioned, to compute the impact of the context on the attribution of responsibility I used country explanatory variables measured by country. To apply this analysis allows me to control the impact of all the institutional significant factors at the same time and in the same equation. In this way I can assess which factor has a higher effect controlling for all others but specially I can compute the interaction of individual and country level variables that my hypothesis proposed.

<sup>31</sup> In first place I performed a 3 level analysis, individuals; country; and years. Because the impact of years was too small (time variance = 0,000) and data only had 3 measured of time I preferred a regression of two levels.

findings were presented. See results<sup>32</sup> in table 3.

**(Table 3: Coefficients of Generalized Hierarchical Linear Model (GGLM) in two levels: individuals and countries)**

Table 3 presented the results obtained in a multi-level regression procedure. The different explanatory models presented in each column have different assumptions about the relationship between individual and country level variables. Model 1 is an empty model that measured the variance across countries and individuals without any independent variables. This model can be used as a parameter for comparison with the other models. Model 2 only has independent variables at individual level. This model is similar to the base-line model showed in table 1. The main difference with the base-line results is that model 2 includes an inter-country variation term that reports the unexplained variance at the country level. This model allows intercepts and slopes varying by country. This model explains individual phenomena assuming different individual features by countries due to individual factors. Finally, Models 3 (3.a; 3.b) also assumes that intercept and slope can vary across countries. But furthermore these models assume that there is an interaction effect between individual and country level variables related to the way in which country features affects the relationship between EV and the probability to vote for the incumbent. That is to say the institutional contexts affect the clarity of responsibility in relation as to how perceptions of the economic situation are considered at the moment of voting. Model 3.a specified the influence of country variables on the average probability to vote for the incumbent and also the impact of country variables on the sociotropic prospective slopes. Model 3.b specified the influence of country variables on the average probability to vote for the incumbent and also the impact of country variables on the sociotropic retrospective slopes.

An individual and a country level component determine the variance now. The contribution of each variable by level is reported in each regression coefficient. The variance component has also an error term at country level ( $\tau$ ). This is a random component that reflects the proportion of variance across countries that is still unexplained. In order to assess the goodness of fit of each model, the reliability test (dispersion index) and the deviance

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<sup>32</sup> Here must be noted that the general rule followed by almost all specialized literature is to apply the multi-level analysis with 30-second level units at least (Luke 2004). Despite this suggestion it is usual found multi-level analysis with a lesser number of second level units. To avoid the problems that this restriction presents some alternative strategies were developed to assure the reliability of results. In this work I followed this procedures: restricted PQL estimation (Penalized Quasi-Likelihood that shows the use of a procedure of asymptotic approximation to the likelihood); reliability test (dispersion index). Finally, I tried to apply parsimonious models avoiding the inclusion of several variables. The use of multi-level model was developed to complement and control the previous simple regression analysis. In a previous stage the country level variables were included by pairs, the significant results were kept and the non-significant results were excluded. The result reported in table 3 is the final synthesis of the significant results.

statistic were reported. Regarding the dispersion index, the values obtained for all models are very near to the reference value (1) and that showed a very good fit of all models. The deviance statistic is a measure of the lack of fit between the data and the model, and a lower deviance always implies better fit (Luke 2004:34). In this sense model 3 seems to be better models but this information could be tricky because a model fit to the same data with more parameters will always have smaller deviance. As a consequence I computed the Akaike Information Criterion (AIC) that incorporates penalties for a greater number of parameters. The AIC for Model 2 with individual explanatory variables only is 68535 and for Model 3.a is 68502 and for model 3.b is 68509. The difference between the two AIC is 33 for model 3.a and 26 for model 3.b. These differences are compared with a chi-square distribution. The differences are significant and these results provided evidence that Model 3 (3.a; 3.b) had a better fit to the data than Model 2 with only individual level explanatory variables.

The first column showed the results for an empty model. Model 1 was computed for 30746 individuals and for 16 countries, it showed that the variance across countries of the probability to vote for the incumbent is 16%. In contrast, Model 2 included the individual explanatory variables. The results were similar to the previous analyses. Almost all variables maintained their level of significance and their impact. The main difference was the reduction of the effect and significance of ideological self-placement without the incumbent effect.

The following two models (3.a and 3.b) present the results to explain the impact of contextual factors in the sociotropic prospective control (3.a) and in sociotropic retrospective control<sup>33</sup>. Regarding Model 3.a for sociotropic prospective evaluations, the evaluations of health services and the ideological self-placement without the incumbent effect lost their significance. The sociotropic retrospective perceptions; the satisfaction with democracy and the educational level maintained their effect and significance. The contextual factors were not significant influences to explained changes in the average of the probability to vote for the incumbent across countries. Besides that, the re-election regarding the law and the changes on electoral systems for representatives' elections showed a positive and a highly significant impact on the prospective control. That is to say where some changes in the electoral systems to elect representative happened and where the presidential re-election was allowed, the attribution of responsibilities was clearer and the EV was stronger. These results seem to reveal that in countries were changes in electoral systems to elect representatives occurred,

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<sup>33</sup> I tried to test the impact of contextual factors in both sociotropic retrospective and prospective view all together in the same equation but the data was strongly forced and the results did not converge. In order to obtain parsimonious and stronger results I preferred to choose two separated explanations for each kind of control.



the prospective control was centered in holding the president accountable and the possibility of re-election was crucial to reinforce the EV. This finding is new evidence that agrees with Lewis-Beck and Nadeau's (2001) results that showed re-election was the strongest determinant to clarity of responsibilities in presidentialisms. The results generated for this current study also let to distinguish that the crucial influence of re-election it is specially related to sociotropic prospective control.

The retrospective logic of control seems to be different. Related to individual explanatory variables, the ideological self-placement without the incumbent effect and the education level lost their significance. The sociotropic prospective perceptions; the evaluations of health services; and the satisfaction with democracy kept their effect and significance. The contextual factors were not significant influences either to explained changes in the average of the probability to vote for the incumbent across countries. In spite of that the unified government showed a positive correlation and a strongest significant impact on the retrospective control. In countries where the government was unified, the attribution of responsibilities regarding to retrospective evaluations was clearer and the EV was stronger. This finding is new evidence as well but on the contrary way that are consistent with Powell and Whitten (1993) results that showed the unified government was the strongest determinant to clarity of responsibilities. The evidence of table 3 further clarify that the crucial influence of unified government was specially related to sociotropic retrospective control.

### **Discussion of findings**

The fact that citizens evaluate the government performance and take that into account at the time of voting, has provided sufficient evidence about the key incentive that elections create in democratic systems. Through this evidence it is possible to prove that elections allow the accountability representation. The aim of this paper was the study of the influence of institutional context across countries on the electoral behavior of Latin American citizens. The three hypotheses tested here have been confirmed by the data. Firstly, the EV assumption was confirmed. Secondly, the EV pattern was strongest where the institutional context allows citizens more clarity in making government accountable for economic outcomes. Lastly, the clarity of responsibility was linked not only to the same factors that affect EV in advance democracies but also to proper Latin American factors.

The findings of this study demonstrated the following conclusions. The first one indicated that Latin-American citizens acted according to the limited rationality theory, using

the heuristic mechanism of EV at the time of voting (Simon 1955). This study produced results which corroborate the core assumption of a great deal of the previous work in the economic voting field: “The government support will be reduced as a consequence of bad economic times and reinforced by good economic times” (Van der Brug, Van der Erij, y Franklin 2007:54). These findings concerning the study of Latin American countries further support the findings of a great deal of the previous work in this field (Lewis-Beck 1988; Powell y Whitten 1993; Whitten y Palmer 1999; Nadeau y Lewis-Beck 2001; Duch y Stevenson 2006).

Regarding the previous research, the findings reported on table 1 and 2 confirmed that presidentialism factor had the strongest impact on the clarity of responsibility attribution. The possibility of legal and effective re-election was the institutional condition that more clarity set on the attribution of responsibility on Latin American presidentialisms. All the variables that measure the EV increased in magnitude and significance in context with legal or effective re-elections. This finding is in agreement with Lewis- Beck and Nadeau 's (2001) hypothesis for the United States and produced results that corroborated Gélinau's (2007) findings for Latin America. The introduction of re-election was the only institutional factor that had the same impact along all the measures of economic voting. Moreover, the findings related to sociotropic retrospective views are consistent with those of Powell and Whitten (1993) who found a similar pattern for parlamentarisms and also with those of Rudolph (2003) for American presidentialism. However, the prospective views (sociotropic and egotropic) are more consistent with Lewis-Beck and Nadeau's (2001) conclusions about the divided government did not impact on the clarity of responsibility in presidentialisms.

Concerning the influence of dynamic factors (Anderson 2000; Nadeau *et al* 2002; and van der Eijk *et al* 2001) the evidence presented on table 1 reinforced the findings of previous research, but specially in relation to the sociotropic retrospective evaluations. Hypothesis 2 was confirmed for the variable presidential support in Congress. The higher the presidential support in The House, the higher the clarity of responsibility and the strongest the EV. Nevertheless, regarding to prospective evaluations the findings were not so clear. Related to the effective number of parties some findings reinforced the previous studies (Anderson 2000; Nadeau *et al* 2002; and Eijk *et al* 2001). Results reported in table 1 are consistent with those that suggested the larger the number of parties the lower the clarity of responsibility. The evidence is strongest in extreme multi-partisan and polarized countries for the prospective (egotropic and sociotropic) views.

Finally the study of Latin American factors also enlightens important conclusions. The changing of rules for presidential elections reduced the clarity of responsibility and lacked the retrospective control. Apart from that the prospective control remained constant on stable and changing contexts. Another important consequence derives from table 2. That is in spite of the different degrees of consolidation of Latin American democracies and in spite of the high levels of electoral volatility that exist in some countries, citizens have acted rationally at the polls, rewarding "good" politicians and punishing "bad" ones. These results were consistent and confirmed the EV not only in countries with stable voting patterns, but also in more volatile countries as well.

As a consequence it is possible to state that the findings of the current study supports previous research on the important field that studies the influence of the context in the process of attribution of responsibilities. The findings obtained in the first stages of the analysis that split the sample by context confirmed the importance of the institutional static factors, (Powell and Whitten, 1993), the dynamic factors (Anderson 2000; Nadeau et 2002; and Eijk *et al* 2001) and the presidentialism factors (Rudolph 2003; Lewis-Beck and Nadeau 2001; Gélinau 2007). Furthermore the study of Latin America factors showed that the very nature of these democracies became a significant influence in the attribution of responsibilities.

The multi-level regression results allowed to distinguished the two different logics behind the control used to holding the government accountable. By one hand the results of this study confirms that sociotropic prospective control is associated with changes in electoral systems to elect representatives and with legal re-election. It is possible to say that where changes in electoral systems to elect representatives occurred, the prospective control seems to be focused in assigning presidential responsibilities for economic outcomes. In this sense the possibility of re-election was crucial to reinforce the EV. It is encouraging to compare these findings with that found by Lewis-Beck and Nadeau's (2001) results and it is possible to confirm the consistence between them. On the other hand, regarding to retrospective evaluations the evidence of table 3 confirmed that where the government was unified, the clarity of responsibilities was higher and the EV was stronger. There are similarities between the results showed in this study and those described by Powell and Whitten (1993). In conclusion in holding the government accountable through sociotropic retrospective evaluations it is possible to say that the unified government lets the clearest scenarios.

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### **Key words**

Context/System/Scenario often used interchangeably.

Sociotropic retrospective perceptions/ retrospective perceptions/ Sociotropic retrospective view/ retrospective view/ Sociotropic retrospective evaluation/ retrospective evaluation/ Sociotropic retrospective control/ retrospective control often used interchangeably.

Sociotropic prospective perceptions/ prospective perceptions/ Sociotropic prospective view/ prospective view/ Sociotropic prospective evaluation/ prospective evaluation/ Sociotropic prospective control/ prospective control often used interchangeably.

EV means economic voting.

Ideological distance from the incumbent/ ideological self-placement without incumbent effect/ ideological identification often used interchangeably.