Economic Reforms, Party Systems and Elections in Latin America

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Abstract

This paper explores the link between economic reforms and elections results in Latin America. We draw from prospect theory and propensity toward risk the hypothesis to be tested empirically. To support the hypothesis we first study the evolution of the party systems in Latin America, finding a swing in several countries, where in the middle of last decade the system was more fragmented or more polarized. We also use panel data analysis to study electoral behaviors finding that reforms were supported but in a diminishing way, as explained by prospect theory.

Key Words: Washington consensus reforms, turnout, presidential elections, legislative elections

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1. Introduction

Nowadays Washington consensus reforms are sitting in the bench among the accused for the economic crisis that Latin America is suffering. After more than a decade of structural reforms, the region has not found the stable growth path. However, structural reforms are not the only ones. Democracy is also under scrutiny. In several countries political instability, presidential crises and institutional weakening are accompanying the economic crisis. Presidents in countries such as Venezuela, Ecuador, and Argentina were elected after profound turmoil. And these new leaders were elected expecting them to recover the economies from crisis and find the path for stability, equity and growth.

What is generating this desire for changes? The relationship between economic crises and reforms may have been over-studied. After the "lost decade", new presidents, generally without the traditional political binds, were elected. And reforms, almost as a mandate, were implemented to relief the pain suffered during the 80s. In many ways it seems that the same is happening now. Crises are the trigger for reforms, almost in a tautological way.

However, in the literature the relationship between economic reforms and election results has not been systematically studied. Researchers focused on sequence and implementation of reforms at the beginning of the process, and then studied the effect of these reforms on several topics such as growth, income distribution, and productivity. Others analyzed theoretically and empirically the effect of political institutions for the

implementation of reforms. However, the reverse effect has been overlooked. How do the reforms affect political turnout and elections?

The purpose of this paper is to study voter's behavior during three different stages of the structural reforms: implementation, sustainability, and fatigue. We consider that this study at least in two ways. First, we would like to extract some generalities from country-specific experiences in order to identify key factors to address in future research. We would like to see if reforms impacted voters' behavior, even controlling for other important type of variables such as economic outcomes. Secondly, we would like to find clues to study the possibility of reform reversals following the current stage that we call "reform fatigue". If reform programs did not affect voters' behavior, the continuation of the second-generation reforms is more plausible.

Our empirical tests will be based on several hypothesis extracted for political science literature and psychology theory. A central hypothesis, extracted from Weyland (2002) and others, argues that leaders' and voters' preferences shift according to their propensity toward risk. In loose domains they are risk lovers in gain domains risk averse. Crises during the lost decade located the voters in a losing situation. In this context, they became risk lovers¹. They supported any risky reform to change the course of the economy, even knowing that future outcomes were uncertain, and that in the short run these reforms could cause some pain. No matter how risky they were, structural reforms

¹ Mathematically, they have a convex utility function, where extremes are preferred to the median, opposed to a concave utility function, where mean utility is preferred to extremes.

were worth a try. Latin America elected new leaders expecting them to change the course of the economy and recover from crisis.

After attaining a fair degree of economic stabilization and growth, the situation changed to the gain domains. In this context, voting population became risk averse. Risk aversion generated rejection to the continuation of reforms with uncertain outcomes. In addition, the missing ones were more demanding, both in technical terms (need of technocrats, a prepared congress, etc) and in political terms (e.g. support from unions for education, pensions, labor market reforms, and for some privatizations). Furthermore, the sustainability of the reforms so far adopted was uncertain without the implementation of these second stage reforms, which in some cases are complementary.

In this paper we test empirically this hypothesis examining the effects of structural reforms over presidential and legislative elections' turnout. We track the electoral results of the incumbent party that adopted the reforms, and test the relation between these results and the path followed by the reforms (implementation, sustainability and fatigue). In the following section we study the evolution of the party system in Latin America between the end of the eighties and the beginning of the nineties. We show an overview of the changes suffered by the main characteristics of a party system: fragmentation (effective number of parties) and polarization (ideological difference). The third section is dedicated to describe the hypotheses to be tested empirically. In that section we use both theoretical approaches and specific-country studies to derive our hypothesis. In the fourth section we summarize the data, describe the

methodology, and report our econometric results. Summary and conclusions are in the fifth part.

2. Party system's evolution in Latin America

In several indicators, Latin American parties are situated in the extremes. For instance, while European electoral volatility was around 10% during the eighties, in Latin America it accounted for 19.6% in the same period, and 23.2% in the last decade (Roberts and Wibbels, 1999)². According to Coppedge (2001), in 4 out of 11 countries more than half of the parties suffered sustained damage between 1982 and 1995, almost disappearing. (In the next version we expect to calculate our own measure of volatility with data from Payne et al, 2002)³. Given this volatility, it would be extremely difficult to study the evolution of Latin American parties and classify them with the standard list of indicators⁴. In this section we will instead study the evolution of the *party system* in Latin America, based on two of the three standard dimensions used to analyze the system: fragmentation, or the number of parties, and polarization, or the position of each party in the ideological spectrum left-right⁵.

² Roberts and Wibbels (199) use the Pedersen index to calculate volatility. It is measured at the sum of individual party gains and losses divided by two. The scale goes from 0 to 100, corresponding to the net shift in voting percentages.

³ The source of presidential and legislative election results come from Payne, et al, 2002, complemented and updated for some countries are complemented with the Database of the Americas, Georgetown University.

⁴ For this type of analysis, see for example Diamond and Gunther (2001). Several classification of parties can be found in the literature (among them, functionalist typology that characterize the parties on the basis of their goals, and organizational typology distinguishing parties by their structure).

⁵ The third dimension is institutionalization. For a cross section analysis in Latin America, see Mainwaring and Scully (1995). (PONER ACA ALGO DE LATINOBAROMETRO, SOBRE LA CERCANIA CON LOS PARTIDOS POLITICOS?).

Each of these dimensions contains some trade off in the political system. Depending on their level, both dimensions can generate problems to create majorities that can govern, and gridlocks in legislation. The trade off in fragmentation is between representation and governance. To perfectly represent each voter desire, a large number of parties would be better in order to show all possible combinations of positions in the political arena. However this large fragmentation would be dangerous for governance, and increase the probability of gridlocks for political discussions and decisions. With polarization, a large and profound difference in positions or ideologies can generate the same governance problems.

Both dimensions are measured in "effective" terms. Fragmentation is measured with Laako-Taagepera index of Effective Number of Parties⁶. This measure can be explained with the following boundaries. For a significant competition there might be two parties. This number would be the lower boundary below which fragmentation could be problematic. On the other extreme, above 4.5 effective number of parties it becomes impossible for two parties to construct a majority⁷.

The Index of Polarization measures the dispersion of the vote away from the relative center⁸. A minimum of zero is reached when all the votes are in one ideological

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⁶ See Coppedge (2001). The index is calculated as the inverse of the sum of squared party shares for each legislative election. The scale goes from 1 to infinity. If there are two parties competing and each one share 50% of the votes, the Index is equal to 2. From Payne et al, (2002) we have 69 legislative elections during the 80s and 90s in 17 countries in Latin America.

⁷ See Coppedge (2001). This number depends on the size of the largest party. When it controls between one quarter and one half of the seats, it is impossible to form a two party majority coalition when there are more than 4.5 parties.

⁸ This index assume that parties on center left are half away than parties on the left, and the same for parties in center-right. The mean position (MPLR) in the left-right spectrum is the measured as 1*(% votes for

block, and 100, when half of the votes are in each of the left right extreme. A minimum functional polarization is 25%, which is the number when no ideological block can have more than half the vote, and ensures some competition. Above 60% (perfectly even distribution of voters among all blocs), polarization also generates gridlocks.

Figure 1 shows these two dimensions for different Latin American countries. Dotted lines mark the boundaries discussed above⁹. Several points can be highlighted from this figure. First, almost all the party systems in Latin America allow some healthy competition (fragmentation above 2), although some of them have a level of fragmentation that difficult governance. Second, just few systems are healthy polarized inside the boundaries suggested by the theory. More surprisingly, this measures show that polarization is more expanded than fragmentation in Latin America. However, some caveats on the data should be introduced. This orientation only shows the preferences of the key decisions makers of the parties regarding more or less State control of the economy, and does not include some of the other dimensions of the orientation such as religion, regional, and rural characteristics. Additionally, although the measure shows the difference between left and right, it doesn't show the relative position of the center.

parties in the right)+ 0.5*(% votes for parties in the center-right)- 0.5*(% votes for parties in the centerleft)-1*(% votes for parties in the left). The Index of Polarization (IP) is calculated as |1-MPLR|* (% right)+ |0.5-MPLR|*(%center-right)+ |-1-MPLR|*(%left)+ |-0.5-MPLR|*(%center-left).

⁹ Fragmentation is measured with the number of seats gained in legislative election for each country, based on data for Payne, et al (2002). Polarization is measured with the number of votes in the same elections. The orientation of each party comes from Database of Political Institutions (DPI)- World Bank. This database has a classification of the position for at least the two largest (government and opposition) parties in the country, and sometimes for the second largest and the second opposition, as well as the orientation of the executive party. This covers at least 80% of all the votes. Implicitly, we assume that the rest parties are in the center.

Which was the evolution of the party systems in Latin America? Is there a clear pattern? We classified the countries in two groups. The first one includes party systems that were relatively stable during the whole decade. The second one includes countries that where the party system swung significantly. Figures 2 and 3 show the two groups, with tree points per country: one at the end of the eighties or beginning of the nineties (equivalently, the beginning of the reform process), one in the middle of the process, and one in the end of the nineties. Figure 2 shows the group that we call stable. In this group, Central American countries show a reasonable level of fragmentation but low polarization. According to DPI classification, in Guatemala, Honduras and Panama, right and in some case center relevant parties compete, but left parties are inexistent, at least with respect to electoral results¹⁰. In Colombia, the Liberal Party (classified as a center party) was elected for most of the seats during the period, although competed with the conservative party in all the elections. For Chile the numbers may be misleading: a strong fragmentation comes from the fact that the two big coalitions are divided in many parties. However, this fragmentation would be lower if instead of all the parties, the two coalitions are considered. On the other hand, a lower polarization comes from the fact that these two coalitions are aligned almost in the same position in the left-right spectrum with respect to economic intervention.

On the other extreme of the figure stand Costa Rica and Uruguay, and to some extent Mexico. Uruguay and Costa Rica have two strong ideological blocs, left and right, and two parties that compete evenly. Mexico, although was governed with supremacy by

¹⁰ Except, as we will see later, for El Salvador and the left party Frente Farabundo Martí para la Liberación Nacional (FMLN).

of the PRI (Partido Revolucionario Institucional) for more than 70 years, shared the seats in the congress with the Partido Acción Nacional (PAN) in our period of analysis.

What was the evolution in some countries of this group? Party system in Colombia, Chile, Costa Rica, Guatemala, Mexico and Panama show a moderate swing during the period, but with different paths. Colombia and Costa Riva are more polarized in the middle of the nineties than in the beginning of the end. Mexico and Chile have a party system less polarized in the middle of the period. Guatemala is more fragmented, and Panama less fragmented. Finally, Uruguay and Honduras has a continuous increase in polarization. However, as mentioned early, these movements are moderate.

Figure 3 shows the second group of countries, where variations in the party system are stronger. El Salvador and Paraguay experienced a continuous increase in polarization. The first one with the appearance of a left party (Frente Farabundo Martí para la Liberación Nacional (FMLN)), while the second in a much lower scale. Peru shows the opposite pattern. From levels of high polarization and fragmentation in 1990, moved to the reasonable zone in the figure in 1995, and then moved to a lower polarization in 2000.

In other countries, party systems swing. In Dominican Republic, while in 1990 the three principal parties¹¹ held the seats in congress, in 1994 the two parties in the

¹¹ These parties are Partido Revolucionario Dominicano (PRD, Left), coalition between Partido Reformista (PR)/P. Revolucionario Social Cristiano (PRSC, right) and Partido de la Liberacion Dominicana (PLD, center).

extremes of the ideological line gained the elections, increasing polarization, coming back to a more even distribution of the seats in 1998. Brazil, Bolivia, Ecuador and Venezuela present a swing in fragmentation. Higher fragmentation and lower polarization happened in the middle of the nineties in Brazil. Almost 8 parties, the majority from the left wing (including the government party, the Partido da Social Democracia Brasileira (PSDB), previously a right party) held the seats. Bolivia and Ecuador, although in the safe zone of polarization, had an increase in fragmentation in the middle of the period. In Bolivia in 1997 almost five parties gained the seats in congress. Ecuador also suffered from the division of parties. In 1992 the party system reached a maximum of almost 8 parties in the legislature. Finally, Venezuela suffered the same swing that Brazil suffered during the nineties.

In summary, 10 out of 13 party systems suffered a swing changing in polarization or fragmentation during the nineties. Although this movements have different intensity, in 4 countries (Brazil, Bolivia, Ecuador and Dominican Republic) the swing located the party system in the dangerous zone in the middle of the nineties.

3- Economic Reforms and elections' turnout: hypotheses.

With these description we can follow the hypothesis about propensity toward risk and hypothesize the following: At the beginning of the reforms (beginning of the 90s), the presidents had to some extent enough support to adopt them. The risk was big, but in a loosing situation voter's population wanted this risky change. Voters were aligned with the president, and fragmentation and polarization were in moderate levels. Reforms were

implemented, and when stabilization arrived and growth began, voters began to become risk averse, especially when facing the second generation of reforms. A second wave of reforms was necessary (e.g. labor markets reforms and institutional reforms), but rejection and reform fatigue appeared, dividing the opinions, some toward the "gaining" status quo, some towards more change, and fragmentation and polarization increased. As stated by Corrales (2002), for the implementation of reforms some uncertainty is welcome, but for the sustainability of the reforms, certainty is the key factor. However, at this stage, there was not absolute certainty about neither the outcomes of the reforms already adopted nor about the effects of the second-stage reforms. Country-specific evidence in Peru and Argentina show that even where the presidents were reelected, the support for their economic programs was already diminishing (Stokes, 2001b, Chapter 5, and Weyland, 2002, Chapter 7)12. Corrales shows the same pattern for Venezuela and Argentina, although the rejection to reforms was stronger in Venezuela. In this "gain" phase, population took for granted the benefits obtained with the structural reforms, and leaders began to loose credit. More polarization, more fragmentation or both appeared in the region.

At the end of the nineties, contagion from the Asian and Russian crises hit the region interrupting growth and generating a new crisis. A new alignment of political forces to tackle the crisis appeared. In some countries like Venezuela and Ecuador, new leaders taking advantage of the discontent of the voting population were elected with majority votes. Party systems became again less fragmented, less polarized, or both.

¹² Stokes (2001) show that this pattern is the same for the poor and the wealthy population in Peru.

We can also derive from this argument complementary explanations, especially referring to political incentives for the reforms. The first one comes from a comparison with the effects of reforms in East Europe. Figure 4 shows a growth index for the two regions since the implementation of reforms. The pattern for Eastern Europe is explained by Blanchard and Kremer (1997) and Merlevede (2001) arguing that since the institutions necessary to boost growth were not in place, reforms were painful in their initial years of transitions to the market. For Latin America the pattern is the opposite. Although the literature shows some adjustment costs, these costs were group specific (see, for example, IDB (2003) for the effects of economic liberalization and privatizations on labor markets). The aggregated effect, accompanied by macroeconomic stabilization programs, was a boost in GDP growth during the initial years. Incentives to change the course of the economy and recover from the lost decade crisis were supporting the reforms. However, this effect was temporary, as were the terms of the presidents. To satisfy voters support, reforms were adopted. In most of the cases, the adoption was with a shock therapy, not following the "optimal" economic path (Olivera, 2002). If reforms were adopted gradually, the ongoing deterioration is stopped only gradually. However, the effect of this package of reforms was difficult to foresee in the long run. Following short run returns, presidents could have adopted the reform to gain support just during their short term. Stokes (2001b) argues that reforms were adopted by surprise, deviating from campaign promises, and parties that deviated were punished in the next elections. For specific type of reforms, Biais and Perotti (1997) show that the way privatizations were made was politically motivated. In societies with high inequality and a poor middle class, privatizations where underpriced. To induce these groups to support the program, they

were invited to buy underpriced shares. Additionally, these researchers argue that this was more likely when the politicians in power had less bind with the traditional political class, as in Latin America.

All of these explanations van be embedded in prospect theory hypothesis about risk propensity that we want to test empirically. Did the reforms affect voter's behavior during the nineties? In the following section we show the econometric results the relate voter's behavior with reform programs, controlling by other type of variables, such as GDP growth and inflation. These two control variables are included for two reasons. The first one is that we would like to isolate the effects of reforms from the effect of macroeconomic stabilization programs. Additionally, this variable includes the economic voting hypothesis studied in political science literature (see, for example, Roberts and Wibbels, 1999). This hypothesis suggest that there would be an increasing anti-incumbent vote if economic hardship, while a healthy economy may reduce volatility, by solidifying support for the status quo.

4. Panel Data Results

Data and Methodology

The source for the dependent variable is Payne et al. (2002). This database has elections results for 17 Latin American countries. All of them, except Dominican Republic are continental countries, and all of them have presidential systems with civil law origin. To construct the dependent variable we follow the evolution of the incumbent party in power when the reforms were implemented. And to decide this moment, we

choose the year when the index of structural reforms (see Lora, 2001) presented the largest increase¹³. This particular party is characterized in our database with its orientation (left, center or right), and then we calculate the change in votes that this party experienced in presidential and in legislative elections before and after the reforms were adopted. We created two type of dependent variables: the change of votes for presidential elections, and for legislative elections of the incumbent party that adopted the reforms. We have a total of 53 presidential elections between 1978 and 2000, and 85 legislative elections. With these calculations we created two different panel databases. This data is bounded with –1 (or –100% when the party disappeared), and the maximum is 185% (see table xx for summary statistics). We use two sets of independent variables: GDP growth and inflation per presidential of legislative period, and the change in the structural index of reforms.

We run fixed effects regressions (or Robust Least Square Dummy Variables, LSDV) controlling in this way for idiosyncratic characteristics of each country. In this way we also control for another hypothesis found in the literature for which there is no available data¹⁴. The dependent variable is the change in votes of the party of the president, or the one that had majority in the congress when reforms were adopted. Independent variables include the *change* and the *level* of the reform index in a quadratic specification, expecting to find a curvilinear relation with the change in votes: an higher but decreasing support of the reforms when moving from the losses domain to the gains

¹³ We know from other literature that in most of the countries the reforms where implemented with shock therapy, more than gradually. That is why we choose the administration that generated the largest change. See for example, Olivera (2002).

¹⁴ For example, Roberts and Wibbles, 1999, include in their specification for elections volatility the "cleavage" hypothesis that suggests that parties' structures could come from historical or religious roots. For Latin America we would like to introduce some measure of "caudillismo", but the data is not available.

domain. We also include a dummy for the periods where the incumbent party was in power, and for the orientation of the incumbent parties: left or right.

Panel data results

Table 1 shows panel data results for presidential elections. We first run regressions including the *change* and the *level* of the reform index (regressions 1 and 4). The results show a negative U shape relationship with the *change* in the reforms. Voters supported the reforms (lower changes in votes for the incumbent party) but in a diminishing pace through time (Regression 1). Additionally, there is a positive U shape relationship between the changes in votes and the *level* of reforms. The higher the level of reforms, the lower the support for them (higher changes in votes for the incumbent party), (Regression 4). This results support in part the hypothesis of propensity toward risk.

When we introduce the macro variables (regressions 2, 3, 5 and 6), we find that when GDP grow during its administration, the incumbent party gains additional support. Our specification is robust for the *change* in reforms, but not for the *level*. The effect of inflation is not significant, perhaps because during the decade inflation was already controlled.

Additionally, we introduced a dummy for the incumbent party when it was in power. With this variable we intent to capture the story of the duration of the incumbent party every time it was in power. However, it is not significant in any of the regressions. The results of all regressions are robust if we do not include this variable.

Finally, we attempt to capture the effect of different orientation of parties introducing a dummy for left and right ideologies compared to center parties. The effects are not significant when our independent variable is the change in the reform index, but become significant and negative when we use the level of reforms. Compared to center parties, the extremes were more punished under this specification.

5. Summary and conclusions.

Several party systems in Latin America swung during the last decade. In the middle of the decade some of them became more polarized or more fragmented. We use this fact en elections results to test empirically the hypothesis of propensity toward risk. Our econometric results support the hypothesis: reforms were supported in their initial steps, but their sustainability was difficult when the voting population entered in the gain domains, entering in a phase of "reform fatigue". Fragmentation and polarization increased, and economic situation was aggravated by the contagion of Asian and Russian crises. At the end of the decade a new stage of losses, and the evolution of the party system shows that there was a new alignment around new leaders.

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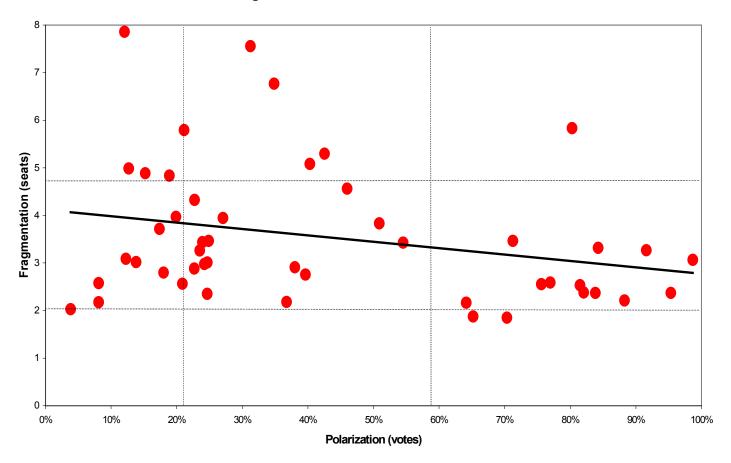
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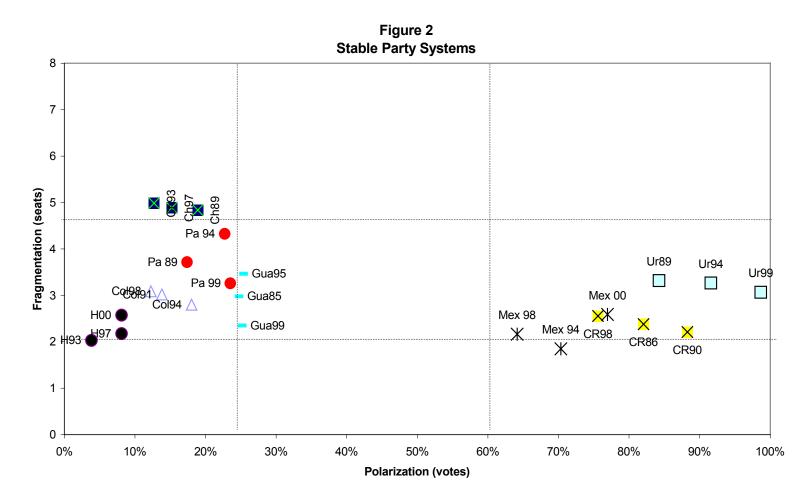
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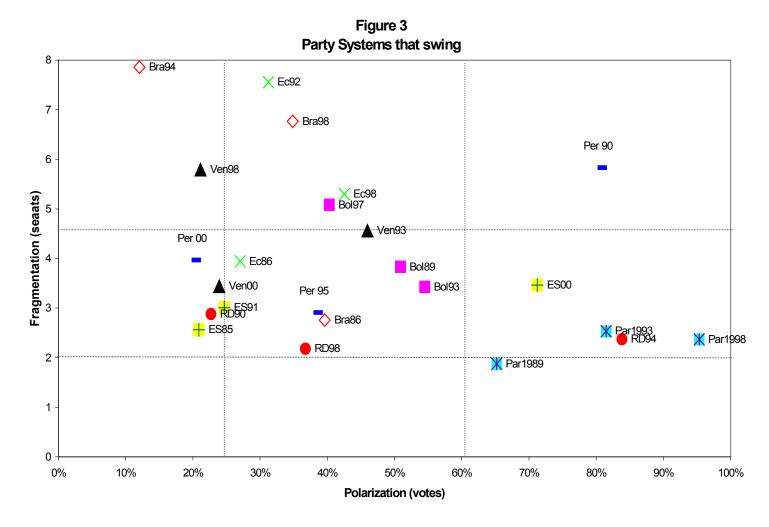
Figure 1 Polarization and Fragmentation in Latin America, End of 80s, endo of 90s



Note: Fragmentation is measured with the number of seats and polarization with the number of votes in legislative elections. In this figure each point corresponds to one country and one year.
Source: Authors calculations based on Payne et al. (2002) database.



Note: Fragmentation is measured with the number of seats and polarization with the number of votes in legislative elections between the beginning of the 80s and the end of the 90s. Source: Authors calculations based on Payne et al. (2002) database.



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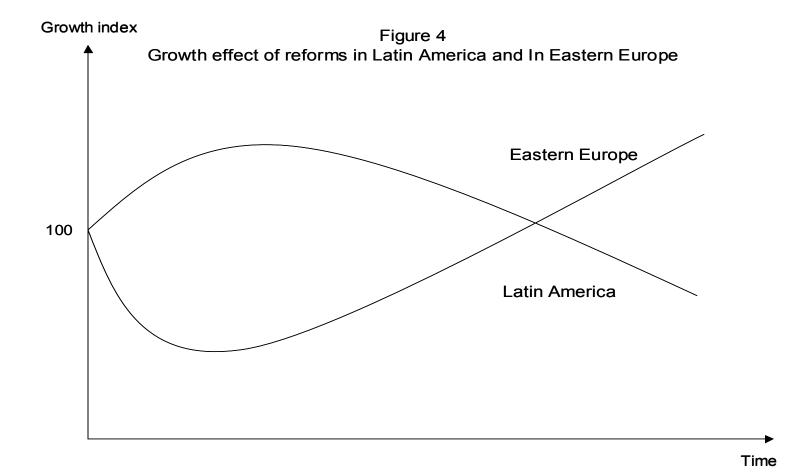


Table 1 Effects of Reforms on Voter's behavior for presidential elections: Panel Data Econometric Results

			mometric Re		
(1)	(2)	(3)	(4)	(5)	(6)
-0.372	-0.374	-0.465			
(2.05)**	(2.59)**	(2.45)**			
4.200	4.630	5.060			
(2.30)**	(2.55)**	(2.63)**			
			0.339	0.097	0.35
			(1.91)*	(0.63)	(1.89)*
			-0.382	-0.092	-0.405
			(1.27)*	(0.54)	(1.97)*
	-0.150			-0.082	
	(3.06)***			(2.27)**	
		-0.003			0.003
		(1.00)			(1.18)
0.218	0.230	0.267	-0.236	-0.169	-0.206
(0.88)	(1.16)	(1.07)	(1.27)	(0.93)	(1.03)
-0.099	288	0.108	-0.730	-0.581	-0.741
(0.37)	(0.97)	(0.32)	(1.97)*	(1.91)*	(1.98)*
-0.162	-0.687	0.398	-2.291	-1.460	-2.42
(0.34)	(1.63)	(0.49)	(2.31)**	(1.65)	(2.13)**
47	47	47	49	46	49
0.39	0.62	0.42	0.45	0.49	0.47
YES	YES	YES	YES	YES	YES
	-0.372 (2.05)** 4.200 (2.30)** 0.218 (0.88) -0.099 (0.37) -0.162 (0.34) 47 0.39	-0.372 -0.374 (2.05)** (2.59)** 4.200 4.630 (2.30)** (2.55)** -0.150 (3.06)*** 0.218 0.230 (0.88) (1.16) -0.099288 (0.37) (0.97) -0.162 -0.687 (0.34) (1.63) 47 47 0.39 0.62	-0.372 -0.374 -0.465 (2.05)** (2.59)** (2.45)** 4.200	-0.372	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

T statistics in parenthesis
* Significant at 10% level.
** Significant at 5% level.
*** Significant at 1% level.