#### ABSTRACT

# Title of Dissertation:EXPLAINING REFORM REVERSALS: THE ROLE OF<br/>EXTERNAL CONSTRAINTS IN TRANSITION AND<br/>LATIN AMERICAN COUNTRIES<br/>Facundo Santiago Martin, Doctor of Philosophy, 2003

#### Dissertation directed by: Professor Peter Murrell Department of Economics

Why were ex-communists returned to power in many transition countries so soon after they were vanquished in popular revolutions? Why didn't these ex-communists immediately reverse the previous policies, but in fact in many cases continue marketoriented reforms? Using a political economy model, the first half of the thesis provides new answers to these questions and shows that they are linked. The model analyzes the interaction between voters and political parties over two electoral terms. In one prominent equilibrium, right wing parties are elected for the first term and implement radical market-oriented reforms, but the second elections are won by excommunists, who continue with the reforms. This equilibrium occurs in countries with somewhat low levels of corruption, high uncertainty, and moderate distance between political parties. Differences in conditions that lead to other types of



equilibria are analyzed, for example the delayed reforms in Russia or the gradual but consistent reforms in Slovenia.

The second half of the thesis empirically analyzes the causes of policy reversals in both transition and Latin American countries. Indexes of reforms are used to identify those time periods in which reversals occur. Using the political economy model of the first half of the thesis plus other theories of political behavior, variables are identified that could affect the decisions of politicians on whether to reverse reforms or to move forward. The estimated relationships show that external constraints from international financial markets or supranational organizations are important factors preventing policy reversals. Macroeconomic crises, usually thought to lead to more market reforms, do not necessarily do so. More corruption leads to more policy reversals, as does less democratic government. This first attempt to capture the basic causes of reversals shows that they are the same in both regions, for example very low or very high debt service obligations, or the absence of an external disciplining force, such as the promise of future entry into the European Union.



### EXPLAINING REFORM REVERSALS: THE ROLE OF EXTERNAL

#### CONSTRAINTS IN TRANSITION AND LATIN AMERICAN COUNTRIES

by

Facundo Santiago Martin

Dissertation submitted to the Faculty of the Graduate School of the University of Maryland, College Park in partial fulfillment of the requirements for the degree of Doctor of Philosophy 2003

Advisory Committee:

Professor Peter Murrell, Chair/Advisor Professor Fernando Broner Professor I.M. (Mac) Destler Professor Nuno Limao Professor Carmen Reinhart



UMI Number: 3107239

Copyright 2003 by Martin, Facundo Santiago

All rights reserved.

## UMI®

UMI Microform 3107239

Copyright 2003 ProQuest Information and Learning Company. All rights reserved. This microform edition is protected against unauthorized copying under Title 17, United States Code.

> ProQuest Information and Learning Company 300 North Zeeb Road PO Box 1346 Ann Arbor, MI 48106-1346





To my parents, Santiago and Natacha



#### AKNOWLEDGEMENTS

This dissertation would not have been possible without the time and support I received from my committee chair, Professor Peter Murrell, who spent hours with me during the whole process, providing direction and encouragement since the beginning. I also thank Professors Carmen Reinhart and Fernando Broner for their active participation and continuous support. I thank Professor Allan Drazen, who helped me to take the first, and usually more difficult, steps in the dissertation process.

I am grateful to Professors Nuno Limao and I.M. (Mac) Destler for their useful comments during the oral defense, and to all the participants of the Economics Department seminars, where I have presented the advances of my work in several occasions. Special thanks for the comments and suggestions I received in conversations with Federico Guerrero, Hernan Ortiz Molina, Juan Treviño, Pedro Rodriguez, Matias Berthelon, Eugenio Giolito, Diego Saravia, Nicolás Magud, Esteban Vesperoni, Leopoldo Avellán and many others I may be forgetting.

I am especially grateful to the help and support of my parents, Santiago and Natacha, who gave me everything I needed. To my sister Guadalupe and my friends here and in Argentina that never doubted I was going to achieve this objective, and that would be impossible to name them all without being unfair. And finally, to Virginia, a special friend who shared with me good and bad moments, and all the uncertainties of the final steps.



#### TABLE OF CONTENTS

List of Tables	vi
List of Figures	vii
Introduction	1
<ul> <li>Chapter 1: Understanding the Return to Power of ex-Communists and the Continuation of Reforms in Transition Countries</li> <li>1.1. Introduction</li> <li>1.2. Possible Existing Explanations</li> <li>Bad economic performance of the first transition years</li> <li>Disappointment after initial euphoria</li> <li>Organization advantage of post-communist parties</li> <li>Changes in the electoral laws</li> <li>Result of a strategic plan by the last pre transition governments</li> <li>Credibility problems</li> <li>Election of policies to constrain successors</li> <li>Incontinues to generate "market confidence"</li> </ul>	3 3 6 8 8 10 10 12 12 12
Incentives to generate "market confidence" 1.3. An alternative explanation 1.4. The Model 1.5. Solving the Model: The Benchmark Equilibrium 1.6. Comparative Static 1.7. An analysis of countries that do not follow the benchmark 1.8. Summary and Conclusions	13 14 16 19 25 29 37
Chapter 2: Policy Reversals in Transition and Latin American countries: An empirical analysis 2.1. Introduction 2.2. Background about both regions and policy reversals 2.3. A simplified model of decisions 2.4. Main Hypotheses External Constraints International Financial Markets Supranational Organizations Trade Integration	39 39 41 43 46 46 47 49 50
Macroeconomics Level of Reforms Corruption Ideology of actual government Ideology of Old Regime Democracy	50 50 51 52 53 53 54



2.5. Description of the Data	55
Dependent Variable	55
Independent Variable	57
2.6. Results	58
Latin America	59
Transition	63
Both Regions	66
2.7. Summary and Conclusions	68
Appendix 1: Proofs of Propositions	86
Appendix 2: Additional Tables	90
Appendix 3: Description of Cumulative Reform Indexes	94
References	98



#### LIST OF TABLES

1. Measures Adopted after Banking Crises	72
2.A. List of Variables (Definitions)	74
2.B. List of Variables (Sources)	76
3.A. List of Variables (Summary Statistics) – Latin America	77
3.B. List of Variables (Summary Statistics) – Transition	78
3.C. List of Variables (Summary Statistics) – Both Regions	79
4. Results - Latin American Countries (1980-1999)	80
5. Results: Transition Countries (1992-2000)	82
6. Results: Both Regions (1995-2001)	84
A1. Political Developments since the fall of the Old Regime: Latin America	90
A2. Political Developments since the fall of the Old Regime: Transition	91
A3. Comparison of methods of estimation and evaluation of instruments: Latin America	92



#### LIST OF FIGURES

1. Distribution of ideological positions



#### Introduction

Why have ex-communists returned to power in some transition countries, only a few years after they were vanquished in popular revolutions? Why did the communists usually not reverse reforms and why did they continue with market-oriented reforms in many cases? The first chapter shows the link between the answers to these questions. A political economy model analyzes the interaction between voters and political parties during two electoral terms. One prominent equilibrium is where right wing parties are elected for the first term, implementing radical market-oriented reforms, and then excommunists are elected for the second term, continuing with the market reforms. This equilibrium is more likely with low levels of corruption, relatively short political parties aparties, and significant, but not huge, reversal costs for policymakers. The model is used to interpret political-economy developments in a variety of transition countries, identifying the factors affecting whether the communists returned to power and whether reforms were reversed.

Two testable implications are derived from the model presented in the first chapter. The first one, addresses the issue of reforms locking-in reforms, or the idea that reversal costs imposed by the initial reforms induce policymakers to continue with reforms in order to avoid a market punishment. The second implication is the idea of voters trusting in left wing policymakers to continue with market reforms after an important mass of reforms is in place and reversals become costly.



www.manaraa.com

The first testable implication is considered in the second chapter, studying the causes of policy reversals in both transition and Latin American countries. Indexes of reforms are used to identify those time periods in which reversals occur. Using the political economy model of the first chapter plus other theories of political behavior, variables are identified that could affect the decisions of politicians on whether to reverse reforms or to move forward. One of the main implications of the theoretical model was the idea of reforms locking-in reforms, generating important reversals costs that make reversals an expensive option. The estimated relationships show that external constraints from international financial markets or supranational organizations are important factors preventing policy reversals. Macroeconomic crises, usually thought to lead to more market reforms, do not necessarily do so. More corruption leads to more policy reversals, as does less democratic government. This first attempt to capture the basic causes of reversals shows that they are the same in both regions, for example very low or very high debt service obligations, or the absence of an external disciplining force, such as the promise of future entry into the European Union.



#### Chapter 1: Understanding the Return to Power of ex-Communists and the Continuation of Reforms in Transition Countries

"I hope that in five years I will not have to apologize that I defeated communism"

Lech Walesa, 10/ 8/2000. Quoted by Reuters

#### **1.1. Introduction**

The rapid return to power of ex-communists in many transition countries, especially in Eastern Europe, was a matter of some surprise. After the almost unanimous rejection they suffered in Central and Eastern Europe (CEE) during 1989 and in the Former Soviet Union (FSU) during 1992, they have managed to return to power a few years after "the end of the history" was announced. Countries such as Poland, Hungary, Albania, Lithuania, Moldova, Bulgaria, Mongolia, Macedonia, Ukraine, Georgia, Armenia, Azerbaijan, Tajikistan, and more recently Romania have seen, through different means and circumstances, how ex-communists were back in government. This come-back was not only the result of civil wars, coups d'etats or military pressure as in most FSU countries, but has been the outcome of a free electoral process in countries such as Poland, Hungary, Lithuania, Bulgaria, Romania, Mongolia or Albania. Related to the initial quotes, in Poland president Kwasniewski (an ex-communist leader of the new Social Democracy) obtained his reelection for another five-year term in October 2000 with 54 % of the votes in the first round of elections. And in September 2001, the ex-



www.manaraa.com

communist Democratic Left Alliance took 41% of the vote, naming Leszek Miller (an exapparatchik) as prime minister, as was largely expected.

How must these facts be understood? Does the electorate want a return to the plan system and the old way of life under the Communist Party rule? Can we observe a shift to the left in voters' preferences?

Even more striking is the fact that these ex-communists usually continued with market-oriented reforms, introduced by the first transition governments. There were no significant reversals but a continuation of the path of reforms when ex-communists parties returned to the government in Poland, Albania, Hungary, Lithuania, Moldova and even Georgia. Only in Bulgaria communists have managed to revert some of the partial radical changes attempted previously when they returned to power. It is too soon to tell the path chosen by the new Romanian government led again by Ion Illiescu (an ex Communist Party secretary under Ceausescu), but it seems that we will not be able to observe reversals. Reforms were stopped in not free and partially free countries that suffered wars such as Armenia, Azerbaijan and Tajikistan.

This chapter offers a theory that is able to explain these two facts simultaneously. In doing so, it identifies an important determinant of policy reversals--external constraints on policymakers created by previous reforms. The contribution of this chapter is to link these two observations, which are not independent of each other. Given that the international financial markets have a strong preference for market-oriented policies, initial reforms trigger capital inflows, foreign lending, and foreign direct investment to transition countries, making a policy reversal very costly. In Eastern Europe (EE), initial reforms make reversals costly also because they increase the probability of entering the



www.manaraa.com

European Union (EU) in the near future.<sup>1</sup> These constraints generated by the first wave of reforms make left-wing parties attractive to voters without any initial preference for a specific party. Such voters have incentives to elect an old regime party after initial reforms if they know that the elected government has no incentives for policy reversals. This is so because the left-wing party will not implement unnecessary shifts to the right in the policies implemented, as it may happen with a right-wing party with a natural tendency to do it. The model shows that these events are more likely to take place under lower levels of corruption, higher uncertainty, and more moderate political parties.

A brief analysis of the alternative explanations that can be found in the economics and political science literature is presented in Section 2, showing their strengths and weaknesses and the fact that they cannot account for both observations simultaneously. In Section 3 it is presented the alternative explanation that constitutes the basis for the model introduced in Section 4, a two-period electoral model that links the above observations, showing that the observed pattern is one of the equilibria of the game. The necessary and sufficient conditions for the observed pattern are analyzed in Section 5, and are defined basically in terms of corruption levels, ideological distance between political parties, reversal costs and the level of uncertainty that defines the length of the political horizon. Section 6 presents a comparative static exercise in terms of the above parameters, resulting in other types of equilibrium. For instance, it is possible to observe that higher levels of corruption will lead to cases of gradual reforms or even delayed reforms; or that very low reversal costs for policymakers may lead to an old regime equilibrium or to an equilibrium with radical reforms. These other equilibria can be

<sup>&</sup>lt;sup>1</sup> Their entry into organizations like OECD or NATO may play a similar role in disciplining policymakers, not only in terms of economic policy



observed in some transition countries; even if they are not the main purpose of this chapter, they are briefly analyzed in Section 7. Finally, Section 8 concludes and presents the direction for further work, placing in context the empirical analysis of the second chapter.

#### **1.2.** Possible Existing Explanations

The economic and political science literature has given some answers for the return of communists to power, or "Old Regime" parties, following the classification by Tucker (1999). Starting from the bad economic performance of the first transition years, and following with some kind of disillusion after the initial euphoria, the organization advantage of post-communist parties, changes in the electoral laws or even the result of a strategic plan before the transition, are the main reasons that can be found to explain the return of communist parties and leaders to government. The continuation of economic reforms has been explained in more general cases using models with credibility problems and asymmetric information, with the incentives of policymakers in constraining potential successors or with their incentives to implement measures that generate market confidence. Even if most of these explanations may help to find an intuitive answer for the two questions, they face some problems and they cannot explain both at the same time. The idea of this chapter is to provide a simultaneous explanation for both questions, but before doing that, it is necessary to stress the strengths and weaknesses of the existing explanations.

#### **1.2.***A*) Bad economic performance of the first transition years

The most natural and tempting answer is given by just observing the bad economic performance in the first transition years, with an increase in income inequality and a



severe deterioration on economic living standards in an important part of the population. Several papers have analyzed in detail the fall in output at the beginning of the transition. It is not surprising at all that an electorate punishes the incumbent government because of poor economic performance. But what is not fully convincing is that rational voters elect a communist government just to punish the incumbent policymakers forgetting the history. If we accept this explanation, we must agree that the punishment for communists seems to be very short after decades of oppression. Even if it seems natural in most developed political societies to punish incumbents electing the opposition, it does not seem a convincing argument for transition economies. It is difficult to accept the existence of such short-memory rational voters that punish for only "one period." By accepting a strategic voting behavior where voters punish the incumbent by electing the opposition, it seems that the opposition's proposals and characteristics are not relevant and voters forget quite easily what they have done in the past. There is almost no role for reputation. However, the analysis of October 2000 presidential elections in Poland by Radio Free Europe/Radio Liberty argue that "the polish electorate tends to value not politicians' past deeds but rather what those politicians stand for today." The comment comes to answer the overwhelming support for an ex-communist and the poor performance of the right-wing Solidarity Party with only 15% of votes and the surprisingly exiguous 1% obtained by the ex-Solidarity founder and leader of the first economic and political reforms, Lech Walesa. They also mention that "polish voters are not inclined to attach much importance to some symbols that were of paramount importance 20 or even 10 years ago."



www.manaraa.com

On the other hand, Tucker (1999a and b) concludes that the elections in transition economies are consistent with sophisticated voters, and cannot be seen just as a referendum on incumbent's performance. His analysis provides evidence that the elections in transition economies are more consistent with the "Party Type model" than with the "Referendum model"<sup>2</sup>, so that the idea of punishment does not have enough support. Another problem with the punishment argument is that it cannot explain the continuation of reforms, because if the old regime parties are elected to punish the incumbents due to the bad performance, we should have expected to see policy reversals, but we did not see them.

#### 1.2.B) Disappointment after initial euphoria

Related to the idea of a negative economic performance, another possibility may be in terms of a big disappointment or disillusion of the electorate after an initial euphoria. Large-scale reforms like the ones implemented in transition economies may generate over-optimistic expectations that cannot be fulfilled (Mckinnon and Pill (1998) consider this possibility). This explanation is closely related to the previous one but augmented by the initial euphoria that may create a disillusion even with a not too bad performance.

#### 1.2.C) Organization advantage of post-communist parties

The "organization strength of post-communist parties and their possession of specific leadership skills" have been mentioned by Lewis (1998) as another possible explanation for their return to power. Given the inexperience of the new political class in political issues, it becomes easier for post communist parties to have a good outcome in elections

<sup>&</sup>lt;sup>2</sup> "Party Type Model": the effect of the economic conditions on the vote for parties is based on their partisan alignment rather than if they are incumbents or not ("Referendum Model"). Tucker (1999a)



because they retain the ability to mobilize people. New parties do not have such a political apparatus or machinery in place and may find very difficult to get support in smaller localities where communists retain their power over people. Post communist parties may be better prepared to compete in free elections given their organization, structures, and mobilization skills. A similar argument is made by Olson (1998), who argues that "the reformed communist party members are the most effective members in the newly democratized parliaments" because they did learn skills of negotiation and deliberation in the old regime. New leaders did not know how to do politics and how politics work. The members of the new parliaments come basically from independent professions and the creative and expressive arts.<sup>3</sup> Even if these observations may be true, the main question should be if they are enough to win the elections. Moreover, the old regime parties should have won the initial elections, but they did not. Assuming that new politicians learn over time how to live in this new environment, the importance of these differences will be vanishing over time. For instance, it should not work well in the case of Poland, where the Solidarity movement had been learning to deal with the communist government at least one decade before the beginning of the transition. These specific skills are being transferred over time to the new political class.

If we combine these kind of arguments with those of poor economic performance, we get the explanation given by Wigtham (1998) for the return of socialists to power in Hungary and Poland, where "hardship consequent on poor economic performance since the end of communist rule and knowledge that those parties contained well-qualified experts and specialists made the reformed former ruling parties look attractive to voters

<sup>&</sup>lt;sup>3</sup> Lech Walesa was an electrician and Vaclav Havel was a dramatist



who wanted change and security, not a return to the old regime." In this way we can partially mitigate the argument relying in the short memory of voters but we may still need some constraints on the policymakers to ensure that they do not reverse reforms. The continuation of reforms cannot be fully explained on these lines.

#### **1.2.D)** Changes in the electoral laws

On the particular case of the 1993 Polish parliamentary elections, Kamisnki et al (1998) show that the post-communist victory cannot be explained with a "shift to the left" in voters' preferences. They conclude that the change in the electoral law before that election (increasing the thresholds for parties to be represented in Congress) and the lack of a unified coalition on the right may be part of the explanation of the observed results. But even if this pattern can be found in other transition countries, it does not provide an answer to the question about the continuation of reforms.

#### 1.2.E) Result of a strategic plan by the last pre transition governments

Interestingly, the return of communists to power may be seen as the result of a strategic plan by former policymakers under the communist rule "to transform their powers to control over state assets into private property well before the collapse of the communist system" (Lewis (1998)). He argues that "the return to power of post communists just sets a political seal to the processes whereby the former *nomenklatura* has transformed but essentially perpetuated its power under new conditions". This argument can be reconciled with the idea that some former members of the nomenklatura have been winners rather than losers of the transition process, and being one of the new vested interests that benefit from rent-seeking opportunities in partially reformed countries given their strategic positions (Havrylyshyn and Odling-Smee (2000)).



Assuming that the new vested interests are members of the old nomenklatura that could keep control of privatized enterprises, they will not have incentives to renationalize them. Their way to obtain rents is now different and they learnt how to succeed in a different economic system given that they have managed to start the transition in a relatively good position. Not only they may oppose a reversal, but also if there is a positive correlation between winners and losers of different individual reform components, they may actually support the introduction of further reforms as long as their interests are not affected. Even if there may be some incentives in continuation, the main question still is whether these new vested interests are powerful enough to affect the electoral results. There will be other new vested interested different than the ex-communists. However Havrylyshyn and Odling-Smee (2000) consider the case of Bulgaria as the best example outside the Commonwealth of Independent States (CIS) of a country where policy was captured by strong vested interests. Bulgaria has been the most important case in CEE where communists reversed reforms after their return to power. Reversals in Bulgaria may reflect the profits for these new vested interests from a partially reformed economy, without any interest in continuation. They actually benefit from a partially reformed economy in terms of rent-seeking activities. It is interesting to notice that usually deeper or structural reforms require the support of some vested interests in order to reduce the privileges and power of other vested interests.

Regarding the second observation, the continuation of reforms after the return of communists, Tommasi and Velasco (1996) show many examples where successful reformist parties were not supported in posterior elections and the opposition parties



advanced with such reforms: Bolivia (1989 and 1994), Chile (1989), Korea (1992), New Zealand (1990), and Turkey (1991). Three kinds of theoretical models can be thought in order to get an answer to the continuation issue.

#### 1.2.a) Credibility problems

In a more general framework, Cukierman and Tommasi (1998) try to explain why in a model with asymmetric information those parties who have historically opposed certain policies are the ones more capable to introduce them because of their higher credibility from the perspective of a poorly informed electorate. Partisan or ideological preferences of policymakers plus asymmetric information make much easier for a left-wing party to implement a change to the right in policies than for a right-wing party. Their model may explain why post-communists did not reverse previous reforms when they returned to power: they may have an incentive in continuation as long as they face right-wing shocks, and they will not get support for a reversal if they observe a left-wing shock, due to a credibility problem.<sup>4</sup> The explanation lies in the credibility issue. But it cannot explain why market-oriented policies were introduced by right wing parties in the first transition governments. The other problem is that it is not an electoral model and so it cannot explain why post communist parties were elected. The behavior of voters choosing a government is not modeled.

#### 1.2.b) Election of policies to constrain successors

Alesina and Tabellini (1990) develop a model where policymakers in office choose policies in order to constrain possible successor governments, a model that can be used to explain the continuation of reforms when the opposition is elected and faces a very

<sup>&</sup>lt;sup>4</sup> Policymakers in office face a "communication" failure due to the credibility problem, which may lead to sub-optimal outcomes. See Drazen (2000), Chapter 10.6



constrained environment. The main difficulty in adapting their model is that election results are exogenous. Aghion and Bolton (1990) make election results endogenous, in a model where incumbents attempt to introduce constraints in order to increase their probability of being reelected, a feature that will be present in the model introduced in this chapter. However, in the equilibrium of the model presented here, things seem to work in the opposite direction: introducing constraints on the future government will reduce re-election probabilities of a right-wing incumbent by making the opposition party (ex-communists or old regime party) look attractive again from voters' perspectives.

#### 1.2.c) Incentives to generate "market confidence"

Finally, and more in line with the idea of this work, Mukand (1999) constructs a model where policymakers in office have incentives to implement policies to conform what foreign investors expect to see, even if they are not the optimal ones. With uncertainty about the true state of the world, policymakers receive a private signal and implement a policy that foreign investors observe before deciding the level of investment in the country. Everybody benefits from a matching between the state of the world and the policy implemented, but governments may have incentives to implement a different policy if in that way they are satisfying foreign investors' priors, maintaining or increasing the market confidence. The paper captures the idea in Krugman (1998), that countries may be compelled to enact inappropriate policies in order to satisfy the wishes of international financial markets. Even if the purpose of the present chapter is not to qualify the efficiency or inefficiency of the policies implemented, it takes the concept of external constraints on the behavior of local policymakers after the country has been integrated in the global economy. That is, after the initial reforms, policymakers become



prisoners in some sense of the capital inflows from international financial markets, and will face an important cost of implementing the wrong policies. This idea will be very helpful to explain the continuation of the market-oriented policies; an electoral process is still missing to account for the original two observations.

#### **1.3.** An alternative explanation

In the next Section a simple electoral model is presented, that captures some of the characteristics and assumptions derived from the previous explanations. The contribution of this chapter is to link the continuation of reforms with the electoral process. Voters will accept to vote for an old-regime party only if some constraint is in place after the initial reforms, preventing or making very costly a policy reversal. The initial marketoriented reforms triggered foreign direct investment (FDI) and capital inflows to transition countries, given the strong preference for such policies of international financial markets. Another kind of constraint that is especially relevant for transition countries in EE comes from their chances to access the EU in the near future, creating another incentive for continuation on the market path after the initial reforms are implemented. The probability to access to the EU and later to the single currency is a very tempting prize that works as a disciplining device for policymakers in transition countries. In a similar line of reasoning, Giavazzi and Pagano (1988) studied the advantages of entering the European Monetary System (EMS) for those high-inflation countries in Western Europe with credibility problems during the 80's.<sup>5</sup> Those countries had an incentive to give up their independent monetary policy ("tying their hands") in order to obtain the credibility of the German monetary policy, for example. For Eastern

<sup>&</sup>lt;sup>5</sup> Basically Spain, Portugal, Italy and Greece.



Europe, "buying" some of the institutions of the West may have an important payoff in order to consolidate their economic perspectives and start closing (or at least reducing) the gap with their Western neighbors. The initial political reforms and market-oriented reforms triggered the possibility of their access to the EU and the capital inflows to these countries, which will change the characteristics of the game. As in switching-cost models<sup>6</sup>, the initial decision to reform creates a reversal cost if policymakers want to go back to previous policies. Once these factors are in place it becomes too costly for policymakers in office to go back (in terms of losing both capital inflows and access to the EU). It is usually claimed that some EU members are reluctant to set a date for the completion of negotiations with the candidates, with the fear of undermining their incentives to continue with economic reforms.<sup>7</sup> There is not such a thing as the EU for other developing countries, so that this factor makes an important difference between transition countries and countries in Latin America, Africa or Asia. On the other hand, all the problems related to the sudden stops of capital inflows are common to all emerging markets.

Voters without any initial preference for a specific party will have incentives to elect an old regime party after initial reforms only if they can be sure or can have some guarantee that the elected government will not have incentives for policy reversals, as long as there is a cost for voters from such reversals. So it is the initial reforms that make the left wing or old-regime parties attractive again from the electorate's perspective. This

<sup>&</sup>lt;sup>7</sup> Good surveys on EU enlargement can be found on the East European Constitutional Review (Winter 2001) and The Economist (May 19<sup>th</sup>, 2001)



<sup>&</sup>lt;sup>6</sup> The markets for mobile phones and frequent flyer miles are typical examples of switching-cost models, based on the work by Klemperer (1987).

will imply a trade-off for the first transition governments when deciding the policies to implement: they may be sacrificing reelection probabilities when implementing their desired policies.

#### 1.4. The Model

There are two terms of office, with two general elections where voters choose policymakers. The discount factor between periods is  $\beta < 1$ . Voters choose between two political parties, one left wing (L) and one right wing (R) where R can be thought as a market-oriented or "Reformist" party and L as the communist successor party or old regime party.<sup>8</sup>

Each party has a desired policy  $\tilde{\pi}^{j}$ ; j = R, L. Voters are represented by the median voter (m), who is assumed to be decisive. The median voter has a desired policy  $\tilde{\pi}^{m}$ . Preferences of parties and individuals can be ordered from left to right, with  $\tilde{\pi}^{L} < \tilde{\pi}^{m} < \tilde{\pi}^{R}$ . Unless otherwise specified,  $\tilde{\pi}^{R} - \tilde{\pi}^{m} = \tilde{\pi}^{m} - \tilde{\pi}^{L}$ , so that results are not affected by any initial inclination of voters.

At the beginning of each term the median voter votes, and the elected party chooses a policy  $\pi_i$  to implement in term *i* (*i* = 1,2). The parties cannot commit to any policy different from their preferred positions before the elections, because voters know that policymakers have incentives to follow their preferred positions once elected: campaign promises have no credibility. The payoffs for each player are as follows:

<sup>&</sup>lt;sup>9</sup> Grzymala-Busse (1999) has an excellent analysis of the evolution and transformation of the communist successor parties in East and Central Europe.



<sup>&</sup>lt;sup>8</sup> Tucker (1999a and b) classifies political parties in transition economies between "Reformist" and "Old Regime" parties, where the classification does not necessarily coincide with the traditional between "Left" and "Right".

#### **Payoffs: Political parties**

Regardless of whether the party holds office or not, it loses when the implemented policy is different than its desired policy by the absolute value of the difference  $(-|\pi_i - \tilde{\pi}^j|)$ . This captures the partisan or ideological preferences of parties. There is also a private rent (*a*) from holding office. This rent may represent legal or illegal activities with which policymakers supplement their private benefits. Because the issue of corruption is especially relevant in transition countries, a high value of *a* is taken to imply high corruption levels.

Finally, the policy implemented in the first term will be important for the payoffs to the party in office in the second term. A reform in the first term triggers capital inflows, but the benefits are not instantaneous because it takes time to develop the new institutions needed to take advantage of the capital inflows (i.e., the switching cost appears in the second period, not the first). One period of good policies is not enough to convince international capital markets that things are going in the right direction. Some consistency over time is required. Thus, if market-oriented reforms are implemented in the first term, policymakers in office during the second term face an additional benefit from continuation (*c*) and a punishment from reversal (-c).<sup>10</sup> The explanation of these extra terms may be found in terms of the higher or lower popularity that the local government may have among international financial markets, increasing or decreasing its reputation in the capital markets. Alternatively, the benefits/costs for policymakers may be seen from a fiscal perspective: a sudden-stop of capital inflows will be an important

<sup>&</sup>lt;sup>10</sup> Continuation and Reversal are defined below.



enough fiscal cost for the government when there are taxes on capital inflows. In the same way, the fiscal benefits of capital inflows will be important.

#### **Payoffs: Median voter**

The payoffs of the decisive voter will be similar to those of the political parties, except for the rents from holding office. The median voter will lose if the implemented policy is different than his desired policy  $(-|\pi_i - \tilde{\pi}^m|)$ , by the absolute value of the distance between them.

The payoffs of the decisive voter are similar to those of the parties, except for the rents from holding office. If the implemented policy is different than desired, the median voter loses  $\left(-\left|\pi_{i}-\tilde{\pi}^{m}\right|\right)$ . In the second term, voters get a positive benefit ( $\kappa$ ) from continuation of reforms, or an additional loss  $(-\kappa)$  if there is a policy reversal. The benefit from continuation represents the positive spillovers from capital inflows, in terms of economic activity, lower taxes, lower unemployment, etc. On the other hand the loss from a reversal can be seen as the negative economic and social consequences of a sudden stop in capital inflows, explored by Calvo and Reinhart (1999).

The preferences of international financial markets determine the concepts of "continuation" and "reversal." For a small emerging country, international financial markets are considered a passive player, with preferences given. The minimum level of reforms that these markets will accept is to the right of the preferred policy of the median voter, showing their preference for market policies.

<u>Definition 1:</u> Any policy  $\pi_i$  will be considered a market-oriented policy if  $\pi_i \in [\underline{\pi}, \overline{\pi}]$ , where  $\underline{\pi} > \widetilde{\pi}^m$  and (for simplicity)  $\pi^R \in [\underline{\pi}, \overline{\pi}]$ 

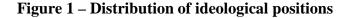


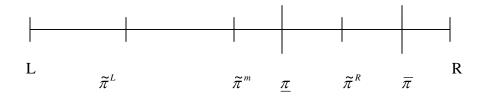
The minimum level of reforms that the international financial markets will accept is to the right of the preferred policy of the median voter, showing their strong preference for market-oriented policies. In this way, the median voter is some kind of gradualist voter who does not like reforms per se. Then, there is not a natural bias towards reforms.

Continuation and reversal are defined only after market-oriented policies are introduced in the first term. Otherwise, there is nothing to continue or to reverse, as in a switching cost model.

<u>Definition 2</u>: After  $\pi_1 \in [\underline{\pi}, \overline{\pi}]$ ,  $\pi_2$  will be classified as a continuation if  $\pi_2 \in [\underline{\pi}, \overline{\pi}]$ and a policy reversal if  $\pi_2 \notin [\underline{\pi}, \overline{\pi}]$ 

The continuation of reforms leads to capital inflows while reversal spurs capital outflows. Capital flows are endogenous, and are triggered by the initial reforms. Rewards and punishments do not occur if market-oriented reforms are not introduced in the first term. Figure 1 illustrates the preferred positions of parties and voters and the policies that are considered market reforms.





#### 1.5. Solving the Model: The Benchmark Equilibrium

More than one equilibrium is possible, depending on the values of the parameters. It is highly expected that a post communist party will try to minimize the changes with respect to the old regime if elected, or that a right wing, market-oriented party will



implement market policies, and it is also expected that once there is a reversal in the party in office, from right to left, the communist successor party will have incentives to reverse at least some of the previous reforms. However, the discussion focuses on one especially interesting case that deserves an additional explanation. This is when, despite the reversal in the party in office (left wing parties elected after the first term), there is a continuation with the market-oriented reforms implemented by the first transition governments (right wing parties). The following discusses the conditions under which party R is elected for the first term, introducing market reforms, and then party L is elected for the second term, continuing with market policies. This is called the benchmark equilibrium. The model is solved backwards.

#### Second Term:

#### The policymaker elected for the second term chooses policy $\pi_2$

If party R is elected, it will choose its desired policy  $\tilde{\pi}^{R}$  regardless of the policy implemented in the first term. If Party L is elected, it will implement its desired policy  $\tilde{\pi}^{L}$  if no reform was implemented in the first term. However, after the implementation of market-oriented reforms in the first term, a party L elected for the second term will only continue with the reforms if the benefits from continuation (2*c*) exceed the costs from continuation ( $|\underline{\pi} - \tilde{\pi}^{L}|$ ).<sup>11</sup> The benefits from continuation include both the reward from international markets in terms of capital flows (*c*) and the savings in terms of capital outflows from a policy reversal (*c*). The cost of continuation is just the absolute value of the distance between the minimum policy accepted by financial markets and the preferred policy of Party L. Hence, a first condition for the benchmark equilibrium to exist is:

<sup>11</sup> For continuation it is enough to set  $\pi_2 = \underline{\pi}$ 



Condition (A):  $2c \ge \left| \underline{\pi} - \widetilde{\pi}^{L} \right|$ 

Condition (A) ensures a continuation of market reforms after Party L is elected for the second term. If (A) does not hold, then there will not be an equilibrium with continuation. More extreme left-wing parties have fewer incentives to continue with reforms if elected for the second term. Then, moderate left-wing parties are needed to ensure continuation. *The median voter elects a policymaker for the second term.* 

If no reform was implemented in the first term, the median voter is indifferent between both parties, so that each will be elected with probability  $\frac{1}{2}$  (there is no natural bias in the median voter's preferences). If market-oriented reforms were implemented in the first term, the median voter will vote for party L rather than party R for the second term: L will be elected with probability one (assuming that (A) holds, implying that party L chooses  $\pi_2 = \underline{\pi}$ , which is closer to  $\tilde{\pi}^m$  than  $\tilde{\pi}^R$ ).

#### **First Term:**

#### The policymaker elected for the first term chooses policy $\pi_1$ .

If R is elected, it will face a trade-off: by choosing the preferred policy ( $\tilde{\pi}^{R}$ ) in the first term, it will maximize present utility but not be reelected. Then, party L will be elected for the second term but it will continue with market reforms. On the other hand, R could choose not to implement significant reforms in the first term, implementing a policy marginally to the left of  $\underline{\pi}$  (i.e.,  $\underline{\pi} - \varepsilon$ , with  $\varepsilon$  small). In this way, R will lose some present utility but increase reelection chances to 50%.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> An illustration of this trade off is given by Peter Bod, former President of the National Bank of Hungary and former Minister of Industry: "...the experiences of the past two or three years in the region seem to support the following conclusion: the governments that



Party R will choose  $\pi_1 = \tilde{\pi}^R$  rather than  $\underline{\pi} - \varepsilon$  if the benefits from choosing the preferred policy  $((\tilde{\pi}^R - \underline{\pi}) + \frac{\beta}{2} (\tilde{\pi}^R - \tilde{\pi}^L))$  are higher than its costs  $(\beta(\tilde{\pi}^R - \underline{\pi}) + \frac{\beta}{2}a)$ .

The benefits of reforming are the first term *gain* in utility from choosing the preferred policy  $(\tilde{\pi}^R - \underline{\pi})$  and the avoided second term expected discounted *loss* in utility if not elected after  $\pi_1 = \underline{\pi} - \varepsilon$ , that is  $(\beta \left(\frac{1}{2}\right) (\tilde{\pi}^R - \tilde{\pi}^L))$ ; this last term is a benefit of reforming

because they may not get reelected after deviating.

The costs of reforming in the first term are  $\beta(\tilde{\pi}^R - \underline{\pi})$ , the second term discounted *loss* in utility because R loses office after reforming in the first term and L chooses the second term policy ( $\pi_2 = \underline{\pi}$ ), and ( $\beta(1/2)a$ ), the second period expected discounted *gain* in utility (rents from office) if R is elected after  $\pi_1 = \underline{\pi} - \varepsilon$  (this is a cost of reforming).

Formally, 
$$\left(\widetilde{\pi}^{R} - \underline{\pi}\right) + \frac{\beta}{2} \left(\widetilde{\pi}^{R} - \widetilde{\pi}^{L}\right) \geq \beta \left(\widetilde{\pi}^{R} - \underline{\pi}\right) + \frac{\beta}{2} a$$

Hence, the following condition ensures that party R, if elected for the first term, will introduce market-oriented reforms.

Condition (B): 
$$\left(\widetilde{\pi}^{R} - \underline{\pi}\right) \geq \frac{\beta}{2(1-\beta)} \left[a - \left(\widetilde{\pi}^{R} - \widetilde{\pi}^{L}\right)\right]$$

Condition (B) ensures that party R, if elected for the first term, will introduce marketoriented reforms.<sup>13</sup> If (B) does not hold, then the right wing party will never introduce reforms in the first term (the above equilibrium breaks down).

have initiated radical change have either failed quickly or postponed the really unpopular measures for the sake of staying in office", in Blejer and Coricelli (1995), page 121

<sup>13</sup> It is too costly for party R to "mimic" party L (not implementing any reform in the first term) in order to maximize its reelection probabilities for the second term.



A similar trade-off faces L if it were elected for the first term. If L followed its preferred policy in maximizing first period utility, its probability of being reelected would be only <sup>1</sup>/<sub>2</sub>. On the other hand, by implementing market policies in the first term  $(\pi_1 = \underline{\pi})$ , L would forgo first period utility but would be reelected with probability one (being constrained to continue reforms in the second term). Party L would implement its preferred policy if the benefits of not reforming  $(\underline{\pi} - \overline{\pi}^L) + \frac{\beta}{2}a + \beta(\pi - \overline{\pi}^L)$  are higher

than the costs  $\left(\beta\left(\frac{1}{2}\right)\left(\tilde{\pi}^{R}-\tilde{\pi}^{L}\right)+\beta a+\beta c\right)$ .

The benefits from not reforming are the first period *gain* in utility from choosing the preferred policy  $(\underline{\pi} - \tilde{\pi}^L)$ , plus the second period expected discounted *gain* (rents from office) if L gets reelected (with probability ½) after not reforming  $(\beta(\frac{1}{2})a)$ , and the avoided second period discounted *loss* from choosing to reform in the first period (because L will be constrained then to choose  $\pi_2 = \underline{\pi}$  rather than  $\tilde{\pi}^L$  in the second term)  $(\beta(\underline{\pi} - \tilde{\pi}^L))$ .

The costs of not reforming in the first term are given by the second period expected discounted *loss* of utility if R is elected for the second term after no reforms are introduced  $\left(\beta\left(\frac{1}{2}\right)\left(\tilde{\pi}^{R} - \tilde{\pi}^{L}\right)\right)^{14}$ , plus the second term discounted *loss* (rents from office plus the loss of continuation rewards that could have ensured by reforming in first period) after not reforming in the first term  $(\beta a + \beta c)$ .

<sup>14</sup> R will be elected with probability ½ and will choose  $\pi_2 = \tilde{\pi}^R$ 

الم للاستشارات

Formally, 
$$(\underline{\pi} - \widetilde{\pi}^L) + \frac{\beta}{2}a + \beta(\pi - \widetilde{\pi}^L) > \beta(\frac{1}{2})(\widetilde{\pi}^R - \widetilde{\pi}^L) + \beta a + \beta c$$

Hence, the following condition ensures that party L, if elected for the first term, will introduce its preferred policy:

Condition (C): 
$$(\underline{\pi} - \tilde{\pi}^{L}) \geq \frac{\beta}{2(1+\beta)} [(\tilde{\pi}^{R} - \tilde{\pi}^{L}) + a + 2c]$$

Condition (C) ensures that party L, if elected for the first term, will not introduce market-oriented reforms.<sup>15</sup> If (C) does not hold, then the left wing party will introduce some market-oriented reforms and will be elected for the first term (the above equilibrium breaks down).

#### The median voter elects a policymaker for first term.

Given conditions (A), (B), and (C), party R will be elected in the first term. These conditions are necessary and sufficient for market-oriented reforms to be introduced in the first term by a reformist party and to be maintained by an old regime party elected for the second term. This equilibrium will be considered a benchmark. What is the interpretation of these conditions?

A lower value of the private benefits from holding office (a) gives parties more incentive to choose their preferred policies in the first term ((B) and (C) more likely to hold). These private benefits can be the result of illegal activities, so that lower levels of corruption are needed. When corruption is higher, politicians become more ideological and less partisan.

<sup>&</sup>lt;sup>15</sup> It is too costly for party L to "mimic" party R (implementing reforms in the first term) in order to maximize its reelection probabilities for the second term.



- With a lower discount rate, β, political parties have more incentive to choose their desired policies in the first term ((B) and (C) more likely to hold) because the future is not important. Myopic policymakers (or short political horizons) are needed: a reasonable assumption in countries with great uncertainty.
- The larger the distance between the parties' preferred positions (π̃<sup>R</sup> π̃<sup>L</sup>), the more likely that (B) holds and therefore that party R chooses its preferred policy in the first term. But at the same time, (C) will be less likely to hold and party L will not have as much incentive to choose its desired policy in the first term. Parties' preferred positions should not be too far from each other, but should not be too close. A political system with moderate political parties is needed.

That is, a country with not very high levels of corruption, relatively short political horizons and two political parties with important, but not orthogonal differences may present the pattern observed in some Eastern European countries, where old-regime parties have been elected to continue with market reforms.

#### **1.6.** Comparative Static

Depending on the values of the parameters, it is possible to obtain other types of equilibria, which can explain the situation in other transition countries that showed a different political and economic evolution. In order to compare the different types of equilibria that can arise, the following notation is adopted:

#### Party elected for $1^{st}$ .term $\rightarrow \pi_1 \rightarrow$ Party elected for $2^{nd}$ .term $\rightarrow \pi_2$

To simplify notation, policies are classified in terms of "reforms" (*r*) and "no reforms"(*nr*):  $\pi_i = r$  if  $\pi_i \in [\underline{\pi}, \overline{\pi}]$ , and  $\pi_i = nr$  if  $\pi_i \notin [\underline{\pi}, \overline{\pi}]$ . Then, the benchmark



equilibrium can be represented in the following way:  $R \rightarrow r \rightarrow L \rightarrow r$ . Starting from this benchmark, it is possible to derive comparative static results corresponding to developments in different countries.

<u>Definition 3</u>: Let  $\overline{c}$  be the maximum level of the reversal costs (c) for which condition (C) holds, and let  $\underline{c}$  be the minimum level of the reversal costs (c) for which condition (A) holds. The benchmark equilibrium is obtained when  $\underline{c} \le c \le \overline{c}$ <u>Proposition 1</u>: If  $c > \overline{c}$ , the equilibrium will be of the form  $L \to r \to L \to r$ (gradualism).<sup>16</sup>

When reversal costs for policy makers are high, gradual reforms can be implemented and will be sustained over time. The reforms are gradual because the policy implemented in both terms will be the minimum that satisfies the preferences of international markets. However, as explained in the next Section, Slovenia constitutes a successful case of gradual reforms that follows this equilibrium.

<u>*Proposition 2:*</u> If  $c < \underline{c}$ , the equilibrium will be of the form  $R \rightarrow r \rightarrow R \rightarrow r$  (radical reforms)

When reversal costs for policymakers (*c*) are small, voters prefer radical reforms to break links with the past, given that reversal costs for voters are positive (K > 0). Voters do not vote for L in the second term, because L would implement a reversal that is costly for voters, and R takes advantage of this. There is a credible threat of a policy reversal under a communist return because policymakers face low reversal costs ((A) does not hold), but reversal costs are big enough for voters to elect R after the first reforms are in place. Political parties face no first-term trade-off, making it a dominant strategy for them

<sup>&</sup>lt;sup>16</sup> Proofs of propositions are provided in Appendix 1



to follow their preferred policies. The combination of low reversal costs for policymakers but high for voters will induce voters to prefer radical reforms to create irreversibility (Dewatripont and Roland, 1995). The Czech Republic and Estonia are good examples of this equilibrium.

However, and relaxing the assumption of no ideological bias in voters' preferences, if the median voter were closer to the preferred position of party L, the story can be different. The assumption in Proposition 2 would lead to an old regime equilibrium:

$$L \to nr \to L \to nr$$
 when  $K < K_0$ , where  $K_0 = \frac{\left(\tilde{\pi}^R - \tilde{\pi}^m\right) - \left(\tilde{\pi}^m - \tilde{\pi}^L\right)}{2}$ , which is the

maximum level that the benefits (costs) from continuation (reversal) may take for L to be elected despite policy reversals.

For  $K < K_0$  it is necessary but not sufficient for  $\tilde{\pi}^m$  to be closer to  $\tilde{\pi}^L$  than to  $\tilde{\pi}^R$ . The median voter is probably closer to the preferred position of party L in many FSU countries, where voters still mistrust market policies. This is a case where reversal costs are low for both voters and policymakers.

<u>Definition 4:</u> Let's call  $d = \tilde{\pi}^R - \tilde{\pi}^L$  to the distance between the preferred positions of political parties. Let <u>d</u> be the minimum distance between parties' positions for condition (B) to hold. And let  $\bar{d}$  be the maximum distance between parties' positions for condition (C) to hold.

Then, the benchmark equilibrium is defined when  $\underline{d} \leq d \leq \overline{d}$ 

<u>Proposition 3:</u> If  $d > \overline{d}$ , the equilibrium of the game will be of the form  $L \rightarrow r \rightarrow L \rightarrow r$  (gradualism)



In the case of higher differences between the political parties, left wing parties will be elected and gradual reforms will be implemented. Gradualism can be seen as a way to obtain consensus between parties.

<u>Proposition 4:</u> If  $d < \underline{d}$ , the equilibrium of the game will have one of the two following forms with probability <sup>1</sup>/<sub>2</sub> each:

 $R \rightarrow nr \rightarrow R \rightarrow r$  (delayed reforms)

 $R \rightarrow nr \rightarrow L \rightarrow nr$  (costless reversal)

When the differences between political parties are small, Party R will be elected in the first term, without introducing significant and sufficient market-oriented reforms. For the second term, each party will be elected with equal probability. An equilibrium with delayed reforms will be obtained if party R is elected, and some kind of costless reversal to the old regime will be observed if Party L is elected.

<u>Definition 5:</u> Let  $\hat{a}^{R}$  be the maximum level of corruption such that condition (B)

holds. And let  $\hat{a}^{L}$  be the maximum level of corruption for which condition (C) holds.

Then, the benchmark equilibrium is obtained with  $a \le \hat{a}^R$  and  $a \le \hat{a}^L$ . If holding office has a value for party R (L) above  $\hat{a}^R$  ( $\hat{a}^L$ ), then it will have incentives to deviate from its desired policy in order to maximize its reelection probabilities. That is, high levels of corruption increase the value of holding office and parties will be willing to sacrifice ideology in order to take advantage of the rents of holding office for one more period.

<u>Proposition 5:</u> If corruption increases such that  $a > \hat{a}^R$  and  $a > \hat{a}^L$ , the equilibrium will take the form  $L \to r \to L \to r$  (gradualism)



When corruption is high, both parties have incentives to mimic the opposite party during the first term to maximize their reelection probabilities. Party L becomes more attractive from the perspective of the median voter, leading to gradual reforms. <u>Proposition 6:</u> If corruption increases such that  $\hat{a}^L < a < \hat{a}^R$ , the equilibrium of the game will be of the form  $L \rightarrow r \rightarrow L \rightarrow r$  (gradualism)

Party L has incentives to mimic Party R to get reelected, becoming more attractive from the perspective of the median voter.

<u>Proposition 7:</u> If corruption increases such that  $\hat{a}^{R} < a < \hat{a}^{L}$ , the equilibrium of the game will have one of the following two forms, with equal probability each:

 $R \rightarrow nr \rightarrow R \rightarrow r$  (delayed reforms)

 $R \rightarrow nr \rightarrow L \rightarrow nr$  (costless reversal)

Party R mimics party L to get reelected when (B) does not hold. No party will reform in the first term, so that R becomes more attractive for the median voter in the first elections (as long as  $\underline{\pi}$  is closer to  $\tilde{\pi}^m$  than  $\tilde{\pi}^L$ ). Then parties are elected with equal probability in the second term. Russia can illustrate a case of delayed reforms, while the case of Bulgaria, as explained in the next section, can represent a case of reversals.

High corruption leads to cases of gradual reforms or even delayed reforms, where the value of holding office for policymakers is very important and more than offsets the ideological component of their utility functions.

#### 1.7. An analysis of countries that do not follow the benchmark

The comparative static exercises of the last section showed the existence of some equilibria different than the benchmark. In this section an attempt to link the



particularities of the patterns observed in some other transition countries with the parameters and conclusions of the model is made.

The first interesting case that does not follow the benchmark equilibrium is the case of Russia. Right-wing policymakers were elected for the first term but they were unable or unwilling to introduce a critical mass of market-oriented reforms. Reforms have been delayed and some elements of the old-regime are still powerful. Using the model's notation, the Russian equilibrium has the following form:  $R \rightarrow nr \rightarrow R \rightarrow r$ . If there are no incentives for policy reversals ((A) holds) and intermediate levels of corruption, condition (B) does not hold (in order to maximize its reelection probabilities, the rightwing party does not have incentives to introduce significant reforms in the first term). In the 1996 presidential elections, the right-wing party managed to get reelected for a second term in a very close election, consistent with the prediction of the model that the median voter is indifferent between both parties in the second term if no reforms were attempted previously.<sup>17</sup> Ukraine could be added to this group as well, but the ideology of government does not seem so clear. In both cases, the government has survived relatively free elections despite the underperformance in terms of economic growth and economic reforms. Kazakhstan and Kyrgyz Republic have a similar political development, unless the degree of freedom and democracy is smaller than in Russia and Ukraine.

Why condition (B) did not hold in Russia? Given the higher levels of corruption relative to most EE countries and the size of the country the value of holding office was very important in Russia: policymakers have access to extract huge private benefits from office in countries with a large level of corruption like Russia. This is consistent with the

<sup>&</sup>lt;sup>17</sup> The quote in footnote 12 fits perfectly the case of Russia.



increase in corruption described in Proposition 7, such that  $\hat{a}^R < a < \hat{a}^L$  and each party is elected with equal probability in the second term. Another way to explain the Russian case may come from Proposition 4, with a small distance between political parties, given the moderate and not very convinced of market reforms right wing party. But probably, corruption is the main issue in Russia.

Policy reversals can also take place in equilibrium. Bulgaria has elected right-wing policymakers at the beginning of the transition, who introduced some market reforms. The return of the Bulgarian Socialist Party (the ex Bulgarian Communist Party) in the elections of 1994 has led to some policy reversals that ended up in an important economic crisis that implied a big cost for the government, replaced again in 1996. In terms of the model, the case of Bulgaria can be seen using the following notation:  $R \rightarrow r \rightarrow L \rightarrow nr$ . The conditions for this equilibrium to come up do not seem very likely to explain the Bulgarian case. Low reversal costs for policymakers can be explained in terms of the mild economic reforms implemented in the first terms and the doubts that the international markets had on the perspectives for Bulgaria. But it is needed to assume that voters faced no cost (nor benefit) from policy reversals (K = 0), so that the credible threat of a policy reversal did not affect voters' utility. Given the expost crisis that took place after the policy reversals, it seems a little naive to assume that voters did not know what could have been the effects of a reversal. It is not at all convincing to assume that Bulgarian voters are less rational or less forward-looking than in other countries so that they do not consider the costs that a policy reversal may imply.

Another and maybe more realistic explanation for the Bulgarian experience is one in which the reversals escape the strict definition that the model implies. The equilibrium



representing the Bulgarian case may have the following form:  $R \rightarrow nr_1 \rightarrow L \rightarrow nr_2$ , where  $nr_1 = \underline{\pi} - \varepsilon$  and  $nr_2 = \tilde{\pi}^L$ . That is, the first right-wing government does not introduce important reforms, but implements a policy marginally to the left of the minimum required by the international financial markets (a policy that is still to the right of the median voter preferred position and that implies some changes from the past). The right-wing party has incentives to do this in order to maximize its reelection probabilities. The first term is identical to the case of Russia explained above. In Bulgaria, however, the right-wing party lost its reelection in 1994 despite the efforts to maximize these probabilities.<sup>18</sup> The communist successor party elected for the second term found no big obstacles to reverse some previous reforms, choosing a policy to the left of the median voter preferred position, without any punishment in the model. The model will not describe this case as a policy reversal, but in fact it looks like a policy reversal in the limit, and can explain what happened in Bulgaria. Intermediate levels of corruption (like those in Bulgaria or Russia<sup>19</sup>) and some care about the future from policymakers are needed to have this case as equilibrium of the model. Bulgaria suffered from the war in Yugoslavia, with whom it had great ties, a fact that can explain the higher corruption relative to other countries in EE. In Proposition 7, it was shown that an increase in corruption such that  $\hat{a}^{R} < a < \hat{a}^{L}$  may end in an equilibrium with these characteristics. In the strict definition of the model, this will not appear as a policy reversal. The same will happen if the distance between the main political parties is not important enough

<sup>&</sup>lt;sup>19</sup> See Freedom House (1998), "Nations in Transit"



<sup>&</sup>lt;sup>18</sup> Reelection probabilities go up from 0 to  $\frac{1}{2}$  when Party R decides to deviate from its one period optimum; they cannot guarantee reelection.

(Proposition 4), where the right wing party is not fully committed nor convinced of market-oriented reforms.

Other countries, like the Czech Republic or Estonia, have shown a pattern where the reformist or right-wing party was elected several times since the beginning of the transition, implementing market-oriented reforms ( $R \rightarrow r \rightarrow R \rightarrow r$ ). This can be seen as a case of radical reforms, or sharp changes towards a market economy. In terms of the model, there is a credible threat of a policy reversal because policymakers face low reversal costs ((A) does not hold), but reversal costs are big enough for voters<sup>20</sup> such that they will elect a right-wing policymaker even after the first reforms are implemented. Political parties face no trade-off in the first term, and it is a dominant strategy for them to follow their preferred policy. The rationale for these high reversal costs for voters may have its origin in the hard experience of Czechoslovakia during the two decades before the transition, with a very rigid, orthodox, repressive and neo-Stalinist regime without the type of relaxation of civil rights and freedom that took place in countries such as Poland or Hungary.<sup>21</sup> Estonia, another country with a negative experience under Soviet domination, and where the Russian population accounts to 30 % of the total population (most of them without citizenship and unable to vote in national elections) can be another example of continuation of policymakers and policies during the first ten transition years. Even in cases where the median voter is closer to the preferred position of the left wing party it is still possible to obtain such evolution of the game. Proposition 2 shows that

<sup>&</sup>lt;sup>21</sup> Jasiewicz (1998).



<sup>&</sup>lt;sup>20</sup>  $K > K_0$ , so that reversal costs are high enough for voters that they do not have incentives to elect a left-wing party.

low reversal costs give incentives to implement radical reforms in a way to create irreversibility in the sense of Dewatripont and Roland (1995). In the Czech Republic, the Social Democratic party has managed to get elected for government since 1998, but in this case the party does not represent the Communist successor party, as it is the case in Poland or Hungary, for example. The Communist party has not reformed in the Czech Republic but continues to be a hard line Communist party.<sup>22</sup> That is: even if there was a change to the left (center–left) since 1998, this did not imply a communist return.

Slovenia has been considered a successful case of gradual but consistent reforms where the left-wing party has been always elected, introducing market-oriented reforms. The equilibrium has the following form:  $L \rightarrow r \rightarrow L \rightarrow r$ , where now  $r = \underline{\pi}$  rather than  $r = \overline{\pi}^{R}$  as in the previous case of radical reforms.<sup>23</sup> An environment with high reversal costs for policymakers and longer political horizons is needed for the old-regime party to have incentives to deviate from its desired policy (sacrificing ideology) in order to maximize its reelection probability.<sup>24</sup> As shown in Proposition 1, an environment with high reversal costs (*c*) will lead to an equilibrium with left wing parties and gradual but consistent reforms.<sup>25</sup> There is not that urgent need to break with the past as in other cases, because the costs of going back are already high, and the country may actually take advantage of some of the old regime institutions before the new ones are formed. The institution-building process is a slow one, and according to Murrell (1992) it may be

<sup>&</sup>lt;sup>25</sup> It is worth noting that it is not necessary to assume that the median voter is closer to the preferred position of the left wing party to get these results.



<sup>&</sup>lt;sup>22</sup> Åslund, Boone, and Johnson (2001)

<sup>&</sup>lt;sup>23</sup> Remember that  $\tilde{\pi}^{R} \geq \underline{\pi}$ 

<sup>&</sup>lt;sup>24</sup> Condition (C) does not hold.

better to have bad institutions than no institutions at all. Slovenia has been the only former Yugoslav republic that has advanced with political pluralism since 1990 in the face of Milosevic's growing power. The head of the Slovenian League of Communists, Milan Kucan, has been elected president twice after the break up of Yugoslavia, and left wing parties have been principal partners in the coalition governments since December 1992. Slovenia is the transition country with higher per capita income and closer in many aspects to the West. All these characteristics can justify the assumption of a more stable situation than in other countries and a longer political horizon, providing voters with an important guarantee on the serious behavior of policymakers of different parties.

Many of the new countries of the Commonwealth of Independent States (CIS) show no significant change with the situation before the transition. They live in the old-regime equilibrium, without significant economic and political reforms and without a significant change in government. In terms of the model notation, such equilibrium can be represented as follows:  $L \rightarrow nr \rightarrow L \rightarrow nr$ . What conditions are needed to get such equilibrium? Low reversal costs for policymakers, giving them incentives for a policy reversal if reforms were implemented previously, combined with low reversal costs for voters, which will not care about the credible threat of a policy reversal and will elect a left-wing party despite the reversals. As shown in Proposition 2, when reversal costs for policymakers are low and the median voter is closer to the preferred position of party L, the game may converge towards the old regime equilibrium. This happens when reversal costs are also small from the voters' perspective ( $K \le K_0$ ). Assuming that the median voter is closer to L seems very reasonable in many FSU countries, where voters still mistrust in market policies.



The low reversal costs for both policymakers and voters can be explained by the low levels of foreign direct investment to these countries and by the absence of the EU as an attractive and disciplining device like in most EE countries. Without capital inflows and without any possibility to get the benefits of joining a union like the EU, they do not have too much to lose, and voters will not perceive the costs of a reversal as in more advanced transition countries. Alternatively, a low discount factor is another characteristic that helps to obtain this old-regime equilibrium. The high levels of uncertainty on these countries, often ruled by authoritarian regimes and military forces, contributes to explain the little importance that the future has for policymakers that have to care more about how to obtain fast rents than making plans for the future, when it is very unlikely that they may retain office. Countries like Turkmenistan, Uzbekistan, Belarus, Tajikistan, Azerbaijan, and Bosnia do not show a significant change from the old regime in terms of economics and politics, and of course also in terms of institutional change.

In some countries, it seems that the whole transition has been delayed. Both a change to a right-wing government and the introduction of market-oriented reforms only took place after some attempts of continuation with the old regime situation. An equilibrium of the form  $L \rightarrow nr \rightarrow R \rightarrow r$  can be obtained when policymakers face low reversal costs and voters face no cost from policy reversals (K = 0). These conditions do not lead to a unique equilibrium, and have been analyzed for the case of Bulgaria that has seen policy reversals. The same considerations made before should be applied here. However, Romania can be one case to illustrate this type of equilibrium, where the communist successor parties were in office until 1996, without significant advances in economic reforms. Only after 1996 a right wing government was elected and introduced some



market-oriented reforms. What is even more interesting is that the ex communist party that hold office until 1996 under Ion Illiescu was elected again in the elections of the end of 2000 and now it is time to see if previous reforms can act as a constraint on the behavior of these policymakers. If reforms are continued, the case could be similar to that in Poland, but where the whole transition has been delayed about six years.

#### **1.8. Summary and Conclusions**

This chapter has studied the reversals of market reforms in the ex-Soviet world. A two-period political economy model explains the pattern observed in some transition countries where ex-communist parties continue with the market-oriented reforms introduced by their right wing predecessors. Moderate or low levels of corruption, relatively short political horizons (high political uncertainty), and moderate differences between the political parties imply that significant reversal costs are needed for such equilibrium to exist.

For different values of the main parameters, other equilibria can be found. Equilibria with gradual and radical reforms can be found and matched with the experience of some Eastern European countries that did not have a change in the ideology of the party in office since the beginning of the transition and have managed to achieve some threshold of reforms that put them in the doors of the European Union (either with right wing or moderate left wing parties elected for both terms). At the same time it is possible to derive the old-regime equilibrium, where no significant changes in economics and politics are observed, that can represent the case of some Former Soviet republics that have a political and economic system very similar to the one they had before the collapse



of the Soviet Union. An equilibrium with delayed reforms, like in the case of Russia, can be obtained when corruption levels are high, so that parties in office have incentives to delay painful economic reforms in order to increase their chances of being in office for another electoral period. Different reasons can explain the delay in reforms in countries like Romania. Policy reversals can be found in equilibrium when the right wing party is not very committed to market-oriented reforms and it is close to the median voter's preferred position, leading to a case like the one in Bulgaria.

Two empirical implications can be derived from this framework. In first place, the idea of reforms locking-in reforms, or whether important market-oriented reforms trigger important reversal costs that will end up constraining policymakers to continue with market reforms. The second chapter of the dissertation addresses this issue using data for both transition and Latin American countries, in a more general framework about reversals to market reforms.

The second testable implication is that of the return of communists or, more general, the election of left-wing parties after important market reforms are implemented. In other words, whether the existence of reversals costs (such as high debt service obligations, FDI, or capital inflows) increases the probability that left wing policymakers are elected. This approach constitutes one of the main directions for future research, given the availability of data on elections and ideology of governments.



# Chapter 2: Policy Reversals in Transition and Latin American countries: An empirical analysis

"It is a pattern that has become common in Central Europe: the repackaged communists are back. At first glance, the results of Poland's general election on September 23<sup>rd</sup> (2001) seem to mark a dramatic reversion to the communist past and a sullen rejection of the market reforms of the past decade"

The Economist, September 29<sup>th</sup>-October 5<sup>th</sup> 2001 (page 53)

# 2.1. Introduction

This chapter presents an empirical analysis of the determinants of reversals of economic reforms, using data from both transition and Latin American countries. This first attempt to capture the basic causes of reversals shows much similarity across regions. Both internal and external factors will determine the speed and the direction that countries choose at different moments in time to reform their economies towards a model more similar to that of the most advanced economies.

The comparison between Latin American and Transition countries is not casual but derives from the similarities that can be found in both regions. The early experience in Latin America could have been very relevant after the fall of communism in transition countries.

One of the empirical implications of the first chapter of the dissertation was the idea of reforms locking-in reforms, or that the existence of external constraints after the initial market-oriented reforms helps discipline policymakers to continue with these reforms. This prediction of the model is tested, in an analysis that also examines a more general



set of determinants, using the available indexes of economic reforms. In line with the results of the model, countries that are more dependent on international financial markets are found to be less likely to implement policy reversals. A similar disciplining role is played by eligibility for entry into the European Union (EU). The presence of external debt obligations places a constraint on reversals, but the benefits from defaulting on impending payments outweighs the disciplining effect of international markets when these obligations become very large.

Apart from the predictions of the model, other more general determinants of reforms are analyzed. Macroeconomic crises, usually thought to lead to more market reforms, do not necessarily do so. Reversals are more likely in less democratic governments in transition samples, while the opposite seems to be true in Latin America. It is also found that structural reforms are more difficult than initial reforms because they affect vested interests, and that corruption does not lead to more reforms, consistent with the model.

The chapter is organized as follows: a background on both regions and some examples of policy reversals are briefly presented in section 2. Section 3 presents a sketch of the model of decisions that will be tested; section 4 introduces the main hypothesis considered in the estimations as well as the contributions of the literature on each hypothesis. The data used in the analysis is described in section 5, with a special emphasis in the construction of the dependent variable. The outcomes of the estimations are reported in section 6, while section 7 concludes.



#### 2.2. Background about both regions and policy reversals

Before jumping into the hypotheses to be tested and the results, it is worth spend some time explaining the main concept of policy or reforms reversals and putting the analysis in a regional and historical context.

Transition countries in Eastern Europe and the Former Soviet Union have been the preferred case study for economic and political reforms in the last 15 years. The magnitude of the changes that have been taking place since the fall of the Berlin Wall are unique in the world. A whole system was changing from the plan to the market. However, Latin American countries have started their own transition process from over regulated and interventionist economies towards the market in the last decades, starting with Chile in 1973 and following with the other countries since the mid 80's. Even if the magnitude of such changes has not been the same as in the ex Soviet world, the reforms implied similar elements: macroeconomic stabilization, price, trade and financial liberalization, privatization of state owned enterprises and the development of market institutions.

Another similarity lies in the political reform that took place before the significant market reforms in most cases: Latin America also managed to return to democratic regimes <u>before</u> engaging in the fundamental economic reforms.<sup>26</sup> The political reform has been much more concentrated in time in transition countries (between 1989-92) than in Latin America, where it took place all across the eighties. The political reform is not necessarily a return to a democratic system, but rather the fall of the old regime and the introduction of some system with elections to appoint a government. In some cases, the

<sup>&</sup>lt;sup>26</sup> The exception is Chile, where economic reforms started during the authoritarian military regime of Augusto Pinochet, that lasted from 1973 to 1990



fall of the old regime has degenerated in a non-democratic and non-free system without basic liberties being recognized. Tables A1 and A2 in Appendix 2 present information about the years in which the old regime parties fell, their ideology, and the Freedom House status of each country at that moment and in 2000.

Several works have tried to compare the evolution of the "transition" in both regions and to derive lessons from the previous experience in Latin America for a better understanding of the problems faced by Eastern Europe and the Former Soviet Union. For instance, Claude Auroi (1998) has a good recompilation of papers relating both regions and Geddes (1993) analysis the institutional aspects of the early periods of transition.

The issue of this chapter is not on reforms but on reversals of market-oriented reforms. A policy reversal is defined as a change that reverses previous market-oriented reforms and reintroduces more interventionist policies.<sup>27</sup> The kind of policy reversals that can be found in transition and Latin American countries will be similar: nationalization of previously privatized banks and firms, re introduction of capital controls, restrictions to trade and experiments with price controls, among others, have been observed in both regions. Table 1 shows some concrete examples of policy changes after banking crises, borrowing from the analysis by Backal, del Villar, and Treviño (1997) of different experiences of countries around the world dealing with banking crises.

<sup>&</sup>lt;sup>27</sup> Quite often the term "policy reversal" in the political economy literature refers to the case of, say, left wing policymakers implementing right wing policies or vice versa (Cukierman and Tommasi (1998) and Martinelli and Matsui (2002), for example). Typical examples are the Nixon and Clinton governments and the market-oriented policies introduced by Menem in Argentina or Fujimori in Peru previously identified as populist and interventionist candidates. Here, the concept of reversals has one particular direction, regardless of the ideology of policymakers.



In most cases it is quite easy to identify policy reversals (Argentina 80-82, Mexico 82 and 88, Venezuela 94, Argentina 2001-02) or decisions to continue with more marketoriented reforms (Argentina 95, Mexico 94, Chile 81-83, Poland 91-92, Hungary 90-93). The cases of Mexico in 1982 and 1994 or of Argentina in 1980-82, 1995 and 2002 are really interesting in order to study the differences that led in each case to a continuation or a reversal of the market-oriented policies in order to solve the banking crisis.

The analysis of this chapter is much more general and will not be constrained to policies or measures adopted after crisis like the ones shown in the previous table, that should be only an indicator of the kind of changes that will be analyzed in what follows.

#### 2.3. A simplified model of decisions

The goal of this section is to develop an empirically implementable framework for estimating the determinants of policy reversals. To implement a single equation framework, policymakers will be viewed as making decisions in a single period. They have similar characteristics to those presented in the theoretical model of the first chapter: they care about actual policies, ideology, reputation, and private benefits. They are subject to reactions to their decisions both inside and outside the country: voters can punish or reward policymakers, as can other countries or international investors or organizations. International markets and organizations, with a strong preference for market-oriented policies, will usually punish deviations from such policies.

External reactions (rewards or reversal costs) can be thought as discrete decisions (to go on or to stop lending, for example) triggered after some particular threshold has been surpassed. There is a highly non-symmetric aspect to the way these reactions occur. For



example, the Russians cut tariffs more drastically than did Poland at the beginning of transition (7.8% in Russia in 1993 and 15.3% in Poland in 1991). Then, while Poland cut them to 13.1% by 1996 in a small market friendly movement, Russia increased tariffs to levels similar to those in Poland, 13.9% by 1997. Even though both countries had similar levels of tariffs, Poland was seen as the more open country to trade and therefore a more market-oriented reformer.<sup>28</sup> Reactions to changes in policies are not symmetrical: increasing or decreasing tariffs will not trigger identical but opposite reactions, but a more complex non-linear reaction function.<sup>29</sup>

These examples justify that changes, as well as levels, are important because reactions from international markets are triggered by the changes or the trend of policies, which are more noticeable than the status quo. Even if a group of policies going in a particular direction, rather than an individual policy, is needed to induce capital outflows, for example, most times it will be one symbolic change that triggers the punishment.<sup>30</sup> International organizations or developed countries look at the evolution of policies and not only results. For example, in the way the IMF and the US government treated the

<sup>&</sup>lt;sup>30</sup> In Argentina, the introduction to the Euro into the Convertibility Law during 2001 was this symbolic measure triggering a jump in spreads with US bonds, even if the fiscal situation was looking bad for quite some time.



<sup>&</sup>lt;sup>28</sup> Another example may come from the critiques on the US trade policy of President George W. Bush after increasing tariffs and subsidies in order to protect farmers and the steel sector during 2002. However, tariffs and subsidies on other products have been much higher since previous years without the government being criticized for this.

<sup>&</sup>lt;sup>29</sup> These kinds of reversal costs may lead to fewer initial reforms in some sort of status quo bias or bias towards gradual reforms. When drastic market reforms are introduced, countries may need to make some kind of adjustment later in the opposite direction, facing the risk of sending a bad signal to the markets. This idea is in line with the argument for gradual reforms made by Dewatripont and Roland (1995) based on the value of experimenting with gradualism under a highly uncertain environment: the option of reversibility (at a low cost) becomes very valuable.

cases of Argentina and Uruguay during the bank runs of 2001 and 2002, it was made very clear that Argentina's reversals were unacceptable. Uruguay was helped after following a market-oriented approach to its problems.

One way of thinking about this problem is in term of switching cost models. A typical example is the market for mobile phones: after buying a mobile phone, given the absence of number portability, it appears a cost of changing to another company. The other typical example is that of airlines: after flying and accumulating frequent flyer miles with one company, the cost of switching to another company becomes higher. In the framework of this work, once market reforms are in place, there is an important cost if a country wants to switch back to a more interventionist situation. Initially, the country is free when deciding to reform or not, but once they have reformed, the reversal cost appears. Therefore, it seems useful to think of the policymaker's decision in two steps.<sup>31</sup> First they must decide whether to pay reversal costs (the switching cost) once some market reforms are in place. The switching cost is endogenous to the initial reforms. Then they must choose a policy after the first choice is made. The following focuses solely on the first choice: reversal or not.

Policymakers maximize their utility function that depends on the number of votes they get, the private benefits they can extract from office, and their ideological preferences subject to the external constraints they face from international financial markets or some supranational organizations, which can impose reversal costs. In this way, the probability of policy reversals depends upon the arguments of such function. Policymakers want to maximize the number of votes by avoiding *crises* and *divisive* 

<sup>&</sup>lt;sup>31</sup> These kinds of two-step problems are usual in microeconomics



*reforms*, or by considering the *ideology* of the median voter and the policies to implement. The level of *democracy* determines the importance of votes in the utility function. Opportunistic policymakers care also about private benefits, where *corruption* is the most important variable under this category. Partisan inclinations suggest using *ideology*. Finally, policymakers are constrained by the reversal costs they face, that come from *international financial markets*, *supranational organizations*, or *trade integration* with developed countries.

Then, the equation to be estimated (*Equation (1)*) would have the following general form:

# Prob. of Reversals = F (external constraints, macroeconomic crises, level of reforms, ideology, corruption, democracy, other control variables)

#### 2.4. Main Hypotheses

In this section, the main hypotheses related to each group of the above variables are presented, introducing the main independent variables that are used in the estimation.

# **A. External Constraints**

The driven force of the model presented in the first chapter is on the external constraints that policymakers face. The implication of the model to be tested here is the hypothesis on the disciplining effect that external constraints may have on domestic policymakers in emerging countries. Three sources of external constraints are relevant: international financial markets, trade integration, and supranational organizations.



# i) External Constraints – International Financial Markets

International financial markets punish deviations with capital outflows, less foreign lending or foreign investment, and higher interest rates.<sup>32</sup> For all samples used here, between 80 and 85 % of observations correspond to years with current account deficits, which are being financed with capital inflows. Calvo and Reinhart (1999) have extensively discussed the problems and cost that a sudden stop on capital inflows have on emerging countries. For example, a dramatic decline in domestic consumption that will severely damage the electoral chances of the incumbent government. Emerging countries rely heavily on capital inflows to sustain their economic growth, and they can hardly take measures that risk losing such flows. A higher *degree of liberalization of the capital* account and capital flows increases the costs of reversals. Capital inflows and foreign investment have increased significantly with the first important reforms, especially during the first years in transition countries that adopted more radical reforms. But once in place they become an obstacle for policy reversals and influence the behavior of policymakers in developing countries.<sup>33</sup> Lora (2000), using the index for Latin America built by Lora (1997)<sup>34</sup>, finds that capital flows to the region (Latin America, as opposed to country-specific capital flows) lead to more market reforms in the same period, but

<sup>&</sup>lt;sup>34</sup> The index that will be used in this chapter for the Latin American sample, as explained in next section



<sup>&</sup>lt;sup>32</sup> Foreign aid is not considered because it may not respond to performance but to other aspects (politics, humanitarian help, strategic decisions, etc) where conditionality is difficult to enforce. See Drazen (2000, Chapter 12.9).

<sup>&</sup>lt;sup>33</sup> Such constraints may lead to sub-optimal policies when policymakers with superior information disregard such information by introducing policies with the only goal of satisfying financial markets and keep the markets' confidence. Mukand (1999) builds a political economy model to develop the idea in Krugman (1998). The optimality of policies is not being analyzed in this work.

there is some evidence that lags of reforms have caused capital flows to the region, but not to the individual countries.

External *debt service due* may strongly influence the behavior of policymakers. The incentives to behave in a market friendly way increase as the amount of obligations increases, given that the international markets perception about the country will determine how costly it is to rollover such debt. However, the relation between debt service and the probability of reversals is likely to be non-linear: even if reversals are more costly as obligations increase, the incentives to default on debt will also increase with the amount of the debt. At some point, the benefits of a debt default may be greater than the benefits of an easy or cheaper rollover. Alternatively, the cost of investing in good behavior to generate market confidence becomes higher if debt service obligations are extremely high, as investors realize the problems the country face to repay its obligations.

*Lending from developed countries* may similarly affect the behavior of policymakers, and probably non-linearly, given the incentives to default on high levels of lending.

*Sovereign credit ratings* reflect the perception by international financial markets of a country's risk. Higher ratings imply higher costs of losing capital flows and therefore from a policy reversal.

Results can be checked for robustness by using different measures of these kind of external constraints.



# ii) External Constraints - Supranational Organizations

Most countries in EE have *chances to enter the EU*. There is not an alternative for countries in the Commonwealth of Independent States (CIS)<sup>35</sup>, with important cultural differences and belonging to another geographical region. The negotiations that most EE countries started to enter the EU imply pressure on domestic policymakers to adopt laws and regulations closer to those in the EU.<sup>36</sup> Losing access to the EU has a very high cost for both policymakers and voters. For example, Fisher and Sahay (2000) analyze economic reforms in transition countries suggesting one of the main hypothesis of this work: "for many countries, the prospect of joining the European Union has been a powerful spur to reform", signaling that the absence of such a factor in the FSU countries may be part of the explanation of why reforms have been retarded.

There is not an institutional equivalent to the EU for Latin America. Moreover, regional trade agreements are weak and there has been resistance to bilateral trade agreements with the United States. The only possible parallel to the EU is *NAFTA* for Mexico<sup>37</sup>, and the recent bilateral trade agreement signed by Chile with both the EU and the NAFTA blocks.

<sup>&</sup>lt;sup>37</sup> Going back to the measures mentioned in Table 1, it is worth comparing the reversals in Mexico after the 1982 crisis when NAFTA was not even considered, and the continuation with market reforms after the 1994 crisis when NAFTA was a reality.



<sup>&</sup>lt;sup>35</sup> The CIS consists of former Soviet Union countries with the exception of the Baltic States.

<sup>&</sup>lt;sup>36</sup> The following countries signed the EU Association Agreement in the dates indicated in parenthesis: Hungary and Poland (December 1991), Romania (February 1993), Bulgaria (March 1993), Slovakia and Czech Republic (October 1993), Estonia, Latvia and Lithuania (June 1995), and Slovenia (June 1996).

For Eastern Europe, entering the EU may have an important payoff in order to consolidate their economic perspectives. A similar process could have been present in Mexico during the eighties as the idea of the formation of the NAFTA started to be a reality.

#### iii) External Constraints – Trade Integration

*Trade integration* with the most developed countries may also have some disciplining effect. Trade with developed countries may generate a demand for institutional adaptation leading to more market reforms, as Raiser, Di Tommaso, and Weeks (2000) postulate.

# **B.** Macroeconomics

In Latin America, the most important experiences with market-oriented reforms usually took place after hyperinflationary episodes. In most transition countries, inflation was the result of the elimination of situations of shortages and price controls, leading in most cases, at least at the beginning of transition, to more market reforms. Crises have been identified as one of the key factors triggering politically difficult reforms that would not have been implemented in normal conditions. However, even if crises do lead to important changes, the direction of those changes will depend on which factors or policies are blamed for the crises.

The literature on the effects of crises on reforms is extensive.<sup>38</sup> For example, Bruno and Easterly (1996) look at the effects of inflation crises on both growth and subsequent inflation and find that higher inflation countries undertook reforms and have lower

<sup>&</sup>lt;sup>38</sup> See Drazen (2000) for a summary.



subsequent inflation.<sup>39</sup> Drazen and Easterly (2001) extend their analysis considering a wider set of variables. They find that indicators of crises like the inflation rate and the black market premium have a behavior consistent with the crisis hypothesis, supporting the arguments that crises may be welfare improving in the sense that they induce reforms that on other times would not be introduced. . Lora (2000) also finds support for the hypothesis that crises lead to more reforms: high inflationary episodes lead to reforms in the financial system and falls in real income and negative growth lead to trade reforms.

The *level of inflation* is relevant, but the presence of inflationary crises is perhaps more important. Cases of high *inflation* and *hyperinflation*<sup>40</sup> are considered. The distinction between high and higher levels of inflation follows the finding that it is easier to stop a hyperinflation with a successful exchange rate-based stabilization plan than to stop a chronic inflation (Vegh, 1992).

# **C. Level of Reforms**

The literature on reforms has distinguished different stages of the reform process. Tommasi and Velasco (1996) argue that the initial phase is relatively easy: stopping high inflation in Latin America "was easy compared to the impending task of reforming the country's regulatory, judicial and educational bureaucracies (...) Such reforms will hurt entrenched interests that have not yet been affected". The second stage of reforms is

<sup>&</sup>lt;sup>40</sup> The Cagan's classic definition of hyperinflation is 50% per month. It is not straightforward to transform it into an annual equivalent. The idea is to separate between cases of high inflation between 30 and 100% per annum and cases of "really high" inflation when the annual change in prices is above 100%.



<sup>&</sup>lt;sup>39</sup> To observe lower inflation after a crisis does not necessarily imply the adoption of market-oriented reforms.

technically and politically more difficult,<sup>41</sup> implying a deceleration of reforms. More reversals are expected when there is a higher *level of the cumulative index of reforms*, as policymakers try to avoid or postpone divisive reforms. For example, Lora (2000) finds evidence for Latin America that "those areas of reform where the distributional conflicts are more subject to political debate are adopted later", or simply that the easier reforms are introduced first.

Controlling for the level of economic reforms is also needed to distinguish between the different starting points of countries in both regions and within a same region.

# **D.** Corruption

*Corruption* puts more weight on the opportunistic side of policymakers relative to the partisan side. Policy reversals will be accepted, regardless of ideological considerations, if policymakers can extract important private benefits from lobbies or vested interests by doing so. It can be argued that some levels of corruption may be needed to pass some market-oriented policies under a left wing government, or to observe reversals under a right-wing government.

More corrupt countries may have an incentive to introduce more regulations and interventionist measures, with fewer incentives for liberalization and deregulation measures, allowing policymakers to keep on benefiting illegally from an over regulated economy. Wei (1999) shows the negative effects of corruption on economic variables and performance and how active industrial policies, over regulation, and the subsidization of

<sup>&</sup>lt;sup>41</sup> Naim (1994) distinguishes between Stage 1 reforms (launching of programs), which have more immediate payoffs and widely distributed political costs, and Stage 2 reforms (consolidation of the program), which have benefits accruing in the medium/long run and specific and identifiable costs that require the elimination of advantages to special interests.



goods like credit, foreign exchange, public housing, and education among others lead to more corruption opportunities. In a similar line, Aslund, Boone and Johnson (2001) argue that high corruption in transition countries could be the motive that keeps some of these economies under-reformed. On the other hand, more corruption may lead to some market-oriented policies like privatization of state enterprises, where huge bribes can be obtained. But in principle, there is not an answer from the literature to the effects of corruption on the introduction of market reforms, which usually appear as part of the solution to fight corruption. <sup>42</sup>

# E. Ideology of Actual Government

Usually, *left wing parties* are more interventionist and less pro-market than *right-wing parties*, so that observing more reversals under left wing than right wing parties should not be surprising. On the other hand, the theoretical model of the first chapter showed how under certain conditions left wing parties would be constrained to go on with market reforms in order to keep support from international financial markets. The use of an exante ideology variable, measured independently of the policies implemented once in office, will be a good way to distinguish between the effects of the natural inclinations of the parties and the effects of the external constraints mentioned above.<sup>43</sup>

### F. Ideology of Old Regime

Both regions (with a few exceptions in Latin America) experienced non-democratic regimes in the past: a *communist old regime party* in transition economies and usually *extreme right military dictatorships* in Latin America. Two different stories can be told

<sup>&</sup>lt;sup>43</sup> Results will be biased if the ideology of each party is calculated ex-post based on the policies they implemented.



<sup>&</sup>lt;sup>42</sup> See for example, Abed and Davoodi (2000)

on the effects of the last non-democratic experience on the probability of reversals. On one hand, people used to living under communism for decades may have incorporated part of the old way of life and thinking and may have a higher resistance to market reforms. On the other, if the negative experience of the past is associated with more interventionist and left wing policies, there could be more support for changes towards the market than in countries that had a right wing authoritarian regime, usually associated (in most cases wrongly) with free market policies, leading to an interventionist bias.

It seems that many Latin American countries tried to experiment with more "socialist" or interventionist policies immediately after the return of democracy, and only after a deep crisis they decided to introduce serious market-oriented reforms. There was a delay in Latin America that was not present in Eastern Europe when experimenting with market reforms.<sup>44</sup>

# G. Democracy

The level of democracy and political participation determines the level of accountability for policymakers' behavior. There is no obvious prior about the effect of *freedom or democracy* on reversals. For instance, Falcetti, Raiser, and Sanfey (2000) show that transition countries with better political rights and civic liberties have made further progress with reforms: democracy leads to more reforms. Aslund, Boone and Johnson (2001) show that democracy in transition countries is positively correlated with the level of market reforms. However, Block (2002) studies the relation between political and economic reforms in Africa finding a conflict between them that may be relevant for other regions with new and fragile democracies such as Latin America and the FSU.

<sup>&</sup>lt;sup>44</sup> On the other hand, transition countries had the opportunity to observe and learn from the negative experiences in Latin America during the eighties



Interventions by opportunistic policymakers in those countries "directly undermine ongoing economic reform programs, which are predicated on reducing deficits, restraining money growth and inflation, and liberalizing foreign exchange regimes and capital markets." In this way, democratization may constitute an obstacle to the sustainability of economic reform.

#### 2.5. Description of the data

#### A. Dependent Variable

A group of cumulative reform indexes, measuring how close a country is from a mature or developed market economy at some point in time, are available and will determine the scope of the empirical analysis. These indexes capture the degree of economic reform and economic freedom. The idea of all these indexes is that they depend only on policies, not on outcomes. A more detailed description of each index can be found in Appendix 3, but a brief description follows.

Since 1991, the European Bank for Reconstruction and Development (EBRD) has prepared an index of economic reform in transition countries (EBRD 2000). This index has many components, including price, trade and foreign exchange liberalization, privatization, infrastructure and enterprise reform, competition policy, and reforms in the financial sector. The higher the level the more similar is a country to the advanced industrial countries.

For Latin America, Lora (1997 and 2001) has built an index of cumulative reforms, the Structural Policy Index. It measures the market freedom allowed by economic policies in five areas: trade, tax, finance, privatization and labor legislation. The index seeks to reflect the degree of neutrality of economic policies in each area, without



measuring the quality of economic policies. The index covers the period 1985-1999. Morley, Machado and Pettinato (1999) build on the work of Lora and extend it backwards until 1970, adding an index measuring the level of control of foreign capital transactions. Their index has five components: trade reform, tax reform, domestic financial reform, privatization and international financial liberalization.

Finally, the Heritage Foundation has constructed an index of economic freedom for all countries since 1994. The index includes several components, such as trade policy, fiscal burden of government, government intervention in the economy, monetary policy, capital flows and foreign investment, banking and finance, wages and prices, property rights, regulation, and black market activity. It is the only index containing data for both transition and Latin American countries using a common method.

These indexes have been used widely in the empirical literature, mainly as explanatory variables. One important drawback of them is their subjectivity, usually based on the opinion of outside experts and containing a risk of reverse causation (performance perceptions may bias ratings given by experts). Havrylyshyn and van Rooden (2000) address this issue finding "surprisingly consistent rankings" when they perform a correlation analysis among the indexes they use. Such a consistency among different indexes should not be expected even in presence of the aforementioned bias: "subjectively-compiled measures" should not be expected to give consistent results.<sup>45</sup>

The indexes have been all normalized to a common scale from zero to one, where 0 indicates the lowest level of reforms and 1 indicates the maximum level. Given the

<sup>&</sup>lt;sup>45</sup> Even if some anomalies exist when looking at country specific numbers and events, they argue "that the surprisingly high consistency outweighs the few anomalies, and gives one reason to feel comfortable with these measures".



availability of data, three different sets of regressions will be estimated for different

regions and periods:46

• Sample 1 - Latin America: 16 Latin American countries 1980-1999 using the four common components of the indexes by Lora and Morley, Machado, and Pettinato (trade, tax, finance policies, and privatizations)

• Sample 2 - Transition: 27 Transition countries 1992-2000 using the Heritage index extended by OLS with the EBRD index. All components are used, except for those measuring liberalization of capital flows.<sup>47</sup>

• Sample 3 – Both Regions: 26 Latin American and 26 Transition countries 1995-2001 using the index by The Heritage Foundation, and excluding the two subcomponents corresponding to monetary policy and capital flows and foreign investment.

Policy reversals, the dependent variable, will be defined as a discrete variable that

takes the value of 1 if there is a fall in the cumulative reform index, and 0 otherwise.

# **B. Independent Variables**

The independent variables have been introduced in section 4, when explaining the

main hypotheses of this chapter. Table 2A and 2B list all variables with their definitions,

and their sources respectively. Tables 3A, 3B, and 3C provide summary statistics for each

variable in each of the samples.

Flow variables and those capturing the information at the end of the year have been

lagged one year to reduce endogeneity problems. The idea is to capture policy decisions

in a particular year, which depend on the variables that can be observed by policymakers

<sup>&</sup>lt;sup>47</sup> The sub index considering monetary policy was excluded from the Heritage index, because it measures the rate of inflation, which does not reflect a policy decision but an outcome.



<sup>&</sup>lt;sup>46</sup> The only possibility to test for differences across regions is to use the index by The Heritage Foundation (1994-2001). Even if it does not include the initial period of reforms in most countries that took place during the eighties and the early nineties, it is a cost that it seems worth to pay in order to have a first approximation to the issue of reversals.

at that time. For example, capital flows and policy reversals in the same year cannot be used because capital flows may be a consequence of policy decisions in that particular year, leading to a problem of reverse causation. Rather, the level of capital flows in the previous year, which is exogenous for actual policymakers, can represent a proxy for the reversal costs they face. Without reversals, capital flows may be correlated in two consecutive years, but if there is a reversal that triggers a punishment, capital flows in two consecutive years should be independent of each other. This is not the only method of countering possible reverse causation biases. Also, an instrumental variables approach is used in regressions where the degree of liberalization of capital flows is used as an explanatory variable.

#### 2.6. Results

A probit estimation is performed given the discreteness of the dependent variable, except where an instrumental variables approach is needed. The main interest is on the probability of observing policy reversals.<sup>48</sup> The reported coefficients are the marginal effects, that is the effect of a marginal change in the independent variable on the probability of a policy reversal.

The analysis begins by examining the two regions separately, to take advantage of the greater number of observations in samples 1 and 2. To test whether it is appropriate to use sample 3, combining both regions for a shorter time period, a structural change test has been performed to test whether the regional sub-samples belong together. The

<sup>&</sup>lt;sup>48</sup> Another reason to estimate the probability of reversals rather than the level of economic reforms comes from the need to use three different indexes: comparability in terms of magnitude or levels does not seem appropriate between them.



likelihood ratio test does not reject the null hypothesis that there is no difference in the models for the two regions.

# A. LATIN AMERICA

For 16 countries<sup>49</sup> in Latin America, the sample runs from 1980 until 1999. Table 4 shows the results of the principal regressions for this sample, presenting variations on equation (1). Column 1 presents the outcome of a basic probit regression. The probability of reversals falls when there is a higher degree of liberalization of capital flows: the marginal effect is negative and significant. Countries that have opened their doors to capital flows will find it more difficult to close them later.

Trade integration with the EU is significant, reducing the probability of reversals. However, trade links with the United States are not significant. This result is somewhat surprising, given that trade in the region with the EU is only important for a few countries, while the much more important trade with the US is not enough to prevent reversals.<sup>50</sup> The dummy for the participation of Mexico in NAFTA has a negative marginal effect, but is not significant at the 10% level.

The degree of democracy is negative and significant: reversals are less likely in less democratic countries. Since the most important market-oriented reforms took place under democratic regimes during the nineties, it is reasonable that the most important reversals also occur under democratic regimes. But also, it must be noticed that there was an initial

 $<sup>^{50}</sup>$  Trade with the US is on average equal to 12.6% of GDP in the sample (with a minimum of 1.1% and a maximum of 61.75%), while trade with the EU is on average equal to 6.6% of GDP (minimum 1.75% and maximum 17.17%)



<sup>&</sup>lt;sup>49</sup> Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Paraguay, Peru, Uruguay, and Venezuela.

reaction against market policies (identified with the military regimes) at the beginning of the democratic period. The first democratic governments in the mid eighties had a tendency to experiment with more socialist or interventionist policies after the fall of the old regime. Market policies only took place after severe crises revealed the unsustainability of previous policies. However, and against the popular feeling in the region that identified the military governments with market reforms, a variable controlling for the existence of military regimes is positive and significant, showing more reversals under military governments, all else equal.

To control for the effect of existing levels of reforms in different countries<sup>51</sup>, a moving average of the index in the three previous years was included. The marginal effect is positive and significant: reversals are more likely in more reformed countries. Stage one reforms are easier than stage two reforms.

Corruption is positive but not significant: at least there is no evidence that it leads to more market reforms. The level of inflation is not significant. Controlling by the initial level of wealth using the GDP per capita in 1978 shows that reversals are less likely in initially richer countries.

Given that the measure of capital flows is lagged relative to policy reversals, there cannot be reverse causation between them, but there could be a problem of endogeneity caused by an omitted variable. If some stable unobserved factor causes a country to be prone to both policy reversals and restrictions on capital flows, then the degree of liberalization of capital flows could be correlated with the error term in equation (1). To

<sup>&</sup>lt;sup>51</sup> The starting point of the transition process has been very different in countries such as Poland and Tajikistan, for example, implying different needs in terms of economic policy.



examine whether this is really a problem, an instrumental variables approach is followed in Column 2. Capital flows liberalizations is instrumented with government consumption as a share of GDP in 1980, imports as a share of GDP in 1980 (following the approach in Edison, Lein, Ricci, and Sloek (2002)), as well as an indicator of socioeconomic conditions. Although there is a decrease in significance due to an increase in standard error, the coefficient on capital flow liberalization increases in absolute size indicating that the suspected bias is not present.<sup>52</sup>

From column 3 on, the amortization due of public debt was added to control for the effects on policymakers of another measure of external constraints. It represents the principal of public debt due to be repaid in a particular year. The levels of amortization due as a % of GDP as well as its quadratic and cubic terms are included in order to capture a potential non-linear relation. The probit estimation in Column 3 shows that the linear term is positive but not significant at the 10% level, the quadratic term is negative and significant, and the cubic term is positive and significant. Hence, low levels of debt service are not enough to induce good behavior but higher levels reduce the probability of reversals. However, the positive cubic term shows the incentive to default as debt increases even more: the increasing benefits of defaulting on the public debt will more than offset the benefits of continuation with market reforms. Also, the cost of investing in good behavior when debt obligations are too high becomes unaffordable, as investors realize the problems that the country will have in repaying its obligations, requiring a

<sup>&</sup>lt;sup>52</sup> Strictly speaking the size of the IV coefficient should be compared with the size of the OLS coefficient. In fact, as table A1 shows, the OLS and the probit marginal coefficients are very close in size.



higher premium. Column 4 presents the IV version of Column 3, with the same basic results.

Table A3 in Appendix 2 compares the equations of columns 1 and 3 of Table 4 when estimated by OLS, probit, and IV techniques, presenting the statistics needed to evaluate the instruments used. The partial R-square and the F-test for excluded instruments in the first-stage regression show that they are correlated with the endogenous right hand side variable. The test of over-identifying restrictions is non-significant, giving more reason for confidence in the choice of instruments. Given these results<sup>53</sup>, given that the Hausman test comparing the OLS and the IV coefficients does not reject the null hypothesis that they are the same, and given the discrete nature of the dependent variable, the remaining columns of Table 4 report only probit results.

Columns 5 adds the government's ideology, classified in terms of right wing and leftwing parties. The marginal effect of left wing parties in office is negative but not statistically different from zero, an important result given the natural tendency of left wing governments to go against market-oriented policies. This result reinforces the idea of some important constraint on the behavior of policymakers because there is not evidence of more reversals under left-wing governments. The evidence, if any, goes in the direction of fewer reversals. The dummy for right wing parties is negative and significant: the probability of reversals falls under right wing parties, an expected result.

Finally, column 6 replaces the level of inflation with two dummies for hyper- and high-inflation. The marginal effects are still negative but not significant. There is no

<sup>&</sup>lt;sup>53</sup> Consistent for the other columns in Table 4 but not reported for space reasons.



evidence of crises leading to reversals, if anything inflationary crises lead to more market reforms in Latin America.

#### **B. TRANSITION**

The sample for transition economies includes 27 countries<sup>54</sup> with data from 1992 to 2000. Table 5 presents the results for this sample, again following the structure of equation (1) and using probit estimation. The most important result in column 1 is that the dummy for those countries eligible to enter the EU is negative and significant: the probability of reversals falls by about 0.25 for those countries. This shows the importance that the EU has for policymakers in the region.

The results for the amortization of public debt due are similar to those found in Latin America: the linear and cubic terms are positive and significant while the quadratic term is negative and significant. Together the results for the two regions on the non-linear effect of amortization constitute very strong evidence. Highly consistent, and significant, results are obtained from two independent samples, indicating the fundamental nature of this policy determinant.

Trade integration with the US has a negative and significant effect, while trade integration with the EU is not statistically different from zero. This result is similar to that found in Latin America, in the sense that the marginal trading arrangement becomes

<sup>&</sup>lt;sup>54</sup> Albania, Armenia, Azerbaijan, Belarus, Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, FYR Macedonia



significant in explaining reversals.<sup>55</sup> It could be conjectured that trade with the natural block (US for Latin America, EU for transition countries) is taken as given by policymakers, while the disciplining effect come only from the marginal or unusual trading block.

Other results, for example, on initial level of per capita GDP, the level of inflation, and the level of reforms are consistent with those in Latin America.

Capital flows liberalization is significant at the 5% level in column (1). Attempts to use IV estimation to control for endogeneity of capital flows liberalization were not satisfactory due to the lack of good instruments for transition countries. Therefore, this variable is omitted in the next columns, using substitute variables and concentrating attention on others that measure external constraints. Column 2 excludes the liberalization variable. The results do not change considerably.

Lending from commercial banks in 19 developed countries was included in column 3 as another measure of external constraints. Its marginal effect is negative and significant. Sovereign credit ratings are included in column 5 instead of the lending variable. The marginal effect is still negative, but not significant at the 10% level.

Because of multicolinearity, it is not possible to assess simultaneously the importance of both the EU and the degree of democracy in the transition country sample. Democracy is one of the prerequisites for EU accession and the correlation between EU and democracy is -0.80. Thus in column 4 the democracy variable replaces the EU dummy. Its marginal effect is positive and significant at the 1% level: more free countries face a

<sup>&</sup>lt;sup>55</sup> Trade with the US is on average equal to 2.38% of GDP in the sample (with a minimum of 0.13% and a maximum of 12.2%), while trade with the EU is on average equal to 24.6% (minimum of 0.84%, maximum 84.7%)



lower reversal probability. It must be noticed that in the transition case all observations are for periods after political reforms and there was not an initial reaction against market policies as in Latin America. Then, more free and democratic countries after the fall of communism have been those with fewer reversals and also those that have advanced more towards a market economy.

As for Latin America, the two crisis dummies are included in columns 5-7. For cases of high inflation a negative and significant marginal effect is found: high inflation leads to fewer reversals or to a continuation with reforms. However, the hyperinflation dummy is not statistically different from zero. Hyperinflationary crises do not lead to more market reforms. The Latin American experience of crises leading to market reforms does not have support in transition countries with respect to hyperinflationary crises. The next sample provides more light on these issues.

Column 6 adds the ideology of the actual government, showing that the marginal effect for left-wing policymakers is not statistically different from zero. As before, some constraint on left wing parties may be offsetting their natural tendency towards interventionist policies, reinforcing previous results. The dummy for right wing parties is negative, but not significantly different from zero. Finally, column 7 adds corruption. It has a positive but not significant marginal effect, the same result observed in Latin America.<sup>56</sup>

<sup>&</sup>lt;sup>56</sup> Democracy was excluded because it is correlated with the corruption measure in the sample.



#### **C. BOTH REGIONS**

Finally, the last exercise uses a sample of 52 countries in both regions: 26 transition countries<sup>57</sup>, and 26 from Latin America.<sup>58</sup> The Heritage index is the reform index, with annual data on reversals from 1995 to 2001. Table 6 presents the main results, using probit estimations of equation (1).

Column 1 presents a basic regression. The marginal effect of the EU dummy is negative and significant and of a similar magnitude to that in the transition sample: the probability of reversals is about 25% lower in countries that are potential EU members. Once more the amortization due of the public debt shows that the linear and cubic terms are positive and significant while the quadratic term is negative and significant. As before, there is evidence that structural and deeper reforms are more difficult and generate more resistance. Finally, a dummy for transition countries is positive and significant.

Since there is no variable for this sample that measures the liberalization of capital flows, credit rating is used in Table 6.<sup>59</sup> Credit rating, which has a negative marginal effect, is significant at a 10% level. The same relation was found in the previous two samples.<sup>60</sup>

<sup>&</sup>lt;sup>60</sup> Results on lending are not reported because the coefficients are not significant at the 10% level. A non-linear relation has been tested, and even if the coefficients are not significant (t-statistics close to 1), the signs of the linear, quadratic, and cubic term are similar to those obtained with the amortization of public debt.



<sup>&</sup>lt;sup>57</sup> The same group mentioned in footnote 54 with the exception of FYR Macedonia.

<sup>&</sup>lt;sup>58</sup> The ones mentioned in footnote 49 plus Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica, Nicaragua, Panama, Suriname, and Trinidad and Tobago.

<sup>&</sup>lt;sup>59</sup> The available variable from the Heritage Foundation measures the level of restrictions on foreign investment, rather than the degree of liberalization of capital flows.

In column 2 the high and hyperinflation dummies replace the level of inflation. High inflation is not statistically different from zero, while hyperinflation has an important *positive* marginal effect. In this sample, those countries with hyperinflationary crises are mostly partially reformed transition countries (only 3 of 23 cases are Latin American), especially those belonging to the CIS.<sup>61</sup> A crisis in a partially reformed economy will most likely be blamed on market reforms, leading to reversals. Crises before 1995 could not be associated easily with market reforms but with the lack of them, as most economies were just starting to reform.<sup>62</sup> The scenario is much different in later years. Fischer and Sahay (2000) show that stabilization plans were introduced only between 1993 and 1995 in the CIS countries, with the exception of Turkmenistan. Reforms can only be blamed for inflationary crises after 1995, not before. Thus, from Tables 5 and 6, it can be argued that during the first years of transition the answer to macroeconomic crises was to accelerate the path of reforms, but after trying market reforms for a while, many times imperfectly, crises are likely to lead to reversals.

In column 3 the ideology of actual government is included. Again, reversals are not observed under left-wing governments, reinforcing results on the effects of external constraints.

Democracy is included in column 4 instead of the EU dummy. As in the transition sample, it is positive and significant: reversals are more likely in less free countries. The

<sup>&</sup>lt;sup>62</sup> Inflationary crises before 1995 account for more than half of the total crises in the transition sample



<sup>&</sup>lt;sup>61</sup> The negative consequences of partially reformed economies have been considered by Murphy, Shleifer and Vishny (1992), and Murrell (1992) among others.

sample contains data for a period significantly posterior to the political reform in all countries.

Column 5 shows that countries with a right wing old regime party are less likely to have reversals, while countries with a left wing old regime party are more likely. It can be argued that formerly communist countries were not used to market policies and would present greater resistance to all changes towards a completely new system. On the other hand, under right wing dictatorships people were already used to living in a system with private property and independent markets, and thus the resistance to more market changes is not so important.<sup>63</sup>

When corruption is added in column 6, it has a positive but not significant marginal effect, the same result found in the two previous samples.

The results for the participation of Mexico in the NAFTA are not reported because the coefficients are not significant. However, the sign is always positive, rather than negative as in the Latin American sample. Is it possible that once countries belong or enter institutions like the EU or NAFTA, the previous disciplining force given by the potential entrance disappears? This is a point worth exploring in future research, but beyond the scope of this work.

#### **2.7. Summary and Conclusions**

This chapter has studied the reversals of market reforms in Latin America and the ex-Soviet world, two regions where changes from centralized to more market-oriented

 $<sup>^{63}</sup>$  The dummy for transition countries was suppressed, because there is a high correlation with the dummy for left (0.93) or right wing (-0.58) old regime parties: all transition countries had a left wing authoritarian regime in the past; on the other hand, all the right wing authoritarian regimes took place in Latin America



economies have been taking place in the last decades. It provides empirical evidence supporting one of the main predictions of the theoretical model presented in the first chapter and, in a more general way, studies the variables that explain reversals in both regions. As expected, there is important evidence that constraints from international financial markets, with a preference for market-oriented policies, help reduce the probability of reversals. A higher degree of liberalization of capital flows, or higher international lending, as well as important debt service obligations will make policymakers in emerging countries think twice before introducing changes that may upset financial markets. A sudden stop of capital inflows or an increase in country risk premiums cannot be afforded in most emerging countries.

The non-linear relation between the probability of reversals and debt obligations is a strong result consistent across samples. When debt service obligations increase, policymakers have more incentives to satisfy financial markets' preferences, but as the burden of the obligations becomes extremely high, the incentives to default on that debt will offset the incentives for good behavior.

The attraction that arrangements like the European Union have for countries in EE helps discipline policymakers, avoiding costly reversals that will be suffered also by voters.

The existence of these types of constraints is reinforced by the absence of more reversals under left wing policymakers, with a natural tendency towards less marketoriented policies.

Among other findings, inflationary crises lead to changes in policies. However, the direction of those changes will depend on the perception of the causes of the crisis. In



69

Latin America, countries have experimented with more market reforms after inflationary crises, but the experience of some transition countries with partial and incomplete reforms shows that severe crises led to reversals in the second half of the nineties. Reform reversals in Argentina during 2002 are a clear example of how the reforms of the nineties are being blamed for the economic crises.

In transition countries, reversals are less likely in more democratic and free countries. In contrast, in Latin America reversals are more likely in more democratic periods. Higher levels of corruption do not lead to more market reforms, probably because free market policies allow fewer options for corruptive activities. This result is consistent with the theoretical model, where the benchmark equilibrium cannot be supported when corruption is too high.

Finally, reversals are more likely, all other things equal, in countries more advanced in the reform process. Structural reforms affecting vested interests are more difficult to implement.

This chapter provides a first attempt to link the progress of reforms, and in particular policy reversals, to external constraints arising out of earlier reforms. The empirical results show the importance of studying this determinant of policy further. Future research would include working with the subcomponents of the indexes as dependent variables, in order to identify the effect of the above variables on independent components of reforms, such as privatization or trade liberalization, for example. A more strict definition of policy reversals might also be examined, using a threshold fall in the value of an index to define a change as a reversal. However, there is a trade-off with the number of observations that will be considered reversals. An alternative is to look to



70

individual components and consider a reversal a case in which there is a fall in more than one of these subcomponents. Building a uniform and standard reform index for both regions at least since the early nineties would be an important contribution to the understanding of reforms and reversals.



Country	Date	Measures adopted	Reversal?
Argentina	1980-82	Nationalization of 100% private sector debt	Yes
		Ceilings for loans' interest rates	
		Higher reserve requirements	
		Freezing of prices and salaries (Plan Austral)	
		Dual exchange rate	
		Insurance of exchange for indebted firms	
Argentina	1995	Lower reserve requirements	No
		Reduction of public spending	
		Dollarization of C Bank reserves to cut devaluation	
		risk	
		Privatization of public banks	
Estonia	1992	Banks with problems are closed	No
		New audit process for banks	
Latvia	1995	Initial help to some banks with problems	No
		Then, some are closed	
Lithuania	1995	Unconditional state support to banks with problems	Yes?
		Central Bank provides money	
Brazil	1995	Flexibilization of exchange rate policy	No
		Privatization of some public banks	
		Restructuring of financial system	
Chile	1981-83	Increase of banks' capital to international standards	No
		Use of monetary policy to reduce interest rate	
		volatility	
		Bank's information made public to have markets	
		controlling banks	
		Changes from a fixed exchange rate to a crawling	
		peg	
Hungary	1990-93	Recapitalization of banks	No
		Privatization of public banks since 1996	
		Central Bank becomes completely independent in	
		1997	
Mexico	1982-88	Price controls	Yes
		Dual exchange rate	
		Dollar accounts in banks converted into pesos at a	
		rate lower than the market rate (Pesificación)	
		Nationalization of Banks	
		Capital controls	
Mexico	1994	Reduction of public spending	No
		Higher foreign share in banking sector	
		Central Bank credit is restricted	
		Central Bank sells dollars to commercial banks to	
		ensure their fulfillment of external obligations	

## TABLE 1 – Measures Adopted after Banking Crises



Country	Date	Measures adopted	Reversal?
Poland	1991-92	Recapitalization of banks	No
		Privatization of public banks	
		Banks in problems are not rescued by state	
Venezuela	1994	8 banks nationalized between August 94 and	Yes
		February 95	
		Banks in problems are rescued	
		Exchange controls	
Argentina	2001-02	Dual Exchange rate	Yes
		Capital controls	
		Freezing of bank deposits	
		"Pesificación" of dollar deposits at a rate lower than	
		the market	
		Interventionist measures to try controlling inflation	
		Increase of import tariffs	

## TABLE 1 (Cont.) – Measures Adopted after Banking Crises

Note: Except the case of Argentina 2001-02, the information on measures adopted and dates is obtained from del Villar, Backal and Treviño (1997)



T	IABLE 2A - List of Variables (Definitions)       Cype of variable     Name     Definition				
Type of variable	Name				
Dependent Variable	Reversal	Discrete variable: 1 if reform index falls,			
		0 otherwise			
External Constraints	K Flows	Index of capital flows liberalization			
– Financial markets	Liberalization	(degree of liberalization): 0=lowest,			
		1=highest – 1 year lag			
	Rating	Sovereign credit rating from Institutional			
		Investors. Data from second semester of			
		previous year. Takes values from 0			
		(worst) to 100 (best)			
	Lending	Bank lending from 19 developed			
		countries, in dollars per capita. One-year			
		lag. Not used in LA sample since it starts			
		in 1985			
	Amortization Due	Amortization due of public debt (only			
		principal, no interests) as % of GDP			
	$(Amortization Due)^2$	Square of amortization due of public debt			
	$($ Amortization Due $)^3$	Cube of amortization due of public debt			
External Constraints	Trade with US	Trade with the United States: Exports +			
– Integration		imports as % of GDP – 1 year lag			
	Trade with EU	Trade with the European Union: Exports			
		+ imports as % of GDP-1 year lag			
External Constraints	EU	European Union dummy, 1 if the country			
– Supranational		has a chance to enter the EU given history			
organizations		and geographic position, 0 otherwise.			
	NAFTA	Dummy for participation in North			
		American Free Trade Agreement			
Macroeconomic	Inflation	Annual inflation (%) – 1 year lag			
Variables	High Inflation	Dummy for annual inflation between 30			
		and 100% - 1 year lag			
	Hyper Inflation	Dummy for annual inflation above 100%			
		- 1 year lag			
	Per Capita GDP XX	Initial level of per capita GDP in US			
		dollars (XX=1978 for LA, 1990 for TR			
		and 1993 for BR)			
Level of Reforms	Level of Reforms	Moving average of the cumulative reform			
		index for the previous 3 years.			
Ideology – actual	Left	Dummy for left wing governments			
government	Dit	(includes center left and far left)			
	Right	Dummy for right wing governments			
		(includes center right and far right)			
	Militars	Dummy for military, non-elected			
		governments			





	TIDLE 211 (Cont) List of Variables (Definitions)				
Type of Variable	Name	Definition			
Ideology – Old	Left Old Regime	Dummy for a left wing old regime			
Regime		authoritarian government			
	Right Old Regime	Dummy for a right wing old regime			
		authoritarian government			
Democracy	Democracy	Freedom House index, average of Civic			
		Liberties and Political Rights indexes.			
		Takes values from 1 (most free) to 7 (least			
		free)			
Corruption	Corruption	Corruption Index, annual average. Takes			
		values from 0 to 6, where 0 corresponds			
		to lowest corruption and 6 highest			
		corruption			
Other control	TR Dummy	Regional dummy: 1 if Transition country,			
variables		0 if Latin American			

 TABLE 2A (Cont) – List of Variables (Definitions)



Type of variable	Name	Sample	Source
Dependent Variable	Reversal	LA, TR, BR	EBRD, Heritage, Lora (1997, 2001), Morley, Machado and Pettinato (1999)
External Constraints – Financial markets	K Flows Liberalization	LA, TR	EBRD, Heritage, Morley, Machado and Pettinato (1999)
	Rating Lending	TR, BR TR, BR	Institutional Investors Bank for International Settlements
	Amortization Due	LA, TR, BR	World Economic Outlook 2002
	(Amortization Due) <sup>2</sup>	LA, TR, BR	World Economic Outlook 2002
	(Amortization Due) <sup>3</sup>	LA, TR, BR	World Economic Outlook 2002
External Constraints – Integration	Trade with US Trade with EU	LA, TR, BR LA, TR, BR	Direction of Trade Statistics Direction of Trade Statistics
External Constraints	EU	TR, BR	
– Supranational organizations	NAFTA	LA, BR	
Macroeconomic	Inflation	LA, TR, BR	WDI
Variables	High Inflation Hyper Inflation	LA, TR, BR LA, TR, BR	
	Per Capita GDP XX	LA, TR, BR	WDI
Level of Reforms	Level of Reforms	LA, TR, BR	
Ideology – actual	Left	LA, TR, BR	www.polisci.com
government	Right	LA, TR, BR LA	www.polisci.com
Ideology – Old	Militars Left Old Regime	BR	
Regime	Right Old Regime	BR	
Democracy	Democracy	LA, TR, BR	Freedom House
Corruption	Corruption	LA, TR, BR	International Country Risk Guide, Political Risk Service Group
Other variables	TR Dummy	BR	- l. I. A. I tin America TD

TABLE 2B – I	List of	Variables	(Sources)
--------------	---------	-----------	-----------

Note: Sample denotes the sample in which the variable is used: LA = Latin America, TR= Transition, BR = Both Regions



Type of	Name		Latin Amer	ica 1980-99	)
Variable		Mean	Median	SD	Ν
Dependent	Reversal	0.34	0	0.47	320
Variable					
External	K Flows	0.69	0.73	0.19	272
Constraints –	Liberalization				
Financial	Rating	29.9	28.1	14.4	314
markets	Lending				
	Amortization Due	4.93	3.86	4.36	320
	$(Amortization Due)^2$	43.3	14.9	140.9	320
	(Amortization Due) <sup>3</sup>	744.3	57.5	5808	320
Ext. Constraints	Trade with US	12.6	10.5	9.58	304
– Integration	Trade with EU	6.66	6.23	2.75	304
Ext. Constraints	EU				
– Supranational	NAFTA	0.04	0	0.19	320
organizations					
Macroeconomic	Inflation	167.2	21.8	862.8	318
Variables	High Inflation	0.22	0	0.41	318
	Hyper Inflation	0.13	0	0.34	318
	Per Capita GDP 1978	2632	2145	1603	320
Level of	Level of Reforms	0.64	0.66	0.15	320
Reforms					
Ideology – actual	Left	0.34	0	0.47	320
government	Right	0.62	1	0.49	320
	Militars	0.16	0	0.37	320
Ideology – Old	Left Old Regime				
Regime	Right Old Regime				
Democracy	Democracy	2.96	2.50	1.18	320
Corruption	Corruption	3.09	3.00	0.93	256
Other control	TR Dummy				
variables					

Table 3A – List of Variables (Summary Statistics) – LATIN AMERICA



Type of	Name		Transition	1992-2000	
Variable		Mean	Median	SD	Ν
Dependent	Reversal	0.17	0	0.38	233
Variable					
External	K Flows	0.60	0.70	0.37	233
Constraints –	Liberalization				
Financial	Rating	27.1	23.1	14.1	154
markets	Lending	187.4	32.7	348.7	252
	Amortization Due	4.03	3.02	4.17	209
	$(Amortization Due)^2$	33.6	9.12	70.1	209
	(Amortization Due) <sup>3</sup>	404.2	27.5	1338	209
Ext. Constraints	Trade with US	2.38	1.98	1.86	202
– Integration	Trade with EU	24.6	19.6	19.7	202
Ext. Constraints	EU	0.36	0	0.48	252
– Supranational	NAFTA				
organizations					
Macroeconomic	Inflation	227.1	23.5	664.6	171
Variables	High Inflation	0.22	0	0.41	171
	Hyper Inflation	0.25	0	0.43	171
	Per Capita GDP 1990	2832	2031	1966	216
Level of	Level of Reforms	0.33	0.31	0.11	234
Reforms					
Ideology – actual	Left	0.44	0	0.50	243
government	Right	0.40	0	0.49	243
	Militars				
Ideology – Old	Left Old Regime				
Regime	Right Old Regime				
Democracy	Democracy	3.70	3.50	1.72	252
Corruption	Corruption	2.49	2.17	1.04	123
Other control	TR Dummy				
variables					

Table 3B – List of Variables (Summary Statistics) – TRANSITION



Type of	Name	]	Both Region	s 1995-200	1
Variable		Mean	Median	SD	Ν
Dependent	Reversal	0.29	0	0.45	345
Variable					
External	K Flows	0.60	0.75	0.22	343
Constraints –	Liberalization				
Financial	Rating	31.8	30.8	14.3	292
markets	Lending	2023	214.9	9528	371
	Amortization Due	4.81	3.70	5.32	348
	(Amortization Due) <sup>2</sup>	51.5	13.7	195.2	348
	(Amortization Due) <sup>3</sup>	1162	50.7	8675	348
Ext. Constraints	Trade with US	13.0	4.18	18.6	306
– Integration	Trade with EU	19.0	10.4	20.3	306
Ext. Constraints	EU	0.19	0	0.39	371
– Supranational	NAFTA	0.02	0	0.14	371
organizations					
Macroeconomic	Inflation	72.2	10.6	357.7	329
Variables	High Inflation	0.14	0	0.35	329
	Hyper Inflation	0.07	0	0.25	329
	Per Capita GDP 1993	2564	1836	2311	350
Level of	Level of Reforms	0.45	0.47	0.16	343
Reforms					
Ideology – actual	Left	0.47	0	0.50	371
government	Right	0.42	0	0.49	371
	Militars				
Ideology – Old	Left Old Regime	0.53	1	0.50	371
Regime	Right Old Regime	0.26	0	0.44	371
Democracy	Democracy	3.07	3.00	1.56	318
Corruption	Corruption	2.87	3.00	0.90	282
Other control	TR Dummy	0.49	0	0.50	371
variables					

Table 3C – List of Variables (Summary Statistics) – BOTH REGIONS



Dependent Variable: Reversal (dummy). Instrumental Variables: K Flows Liberalization instrumented						
Type of Variable	Name	(1)	(2)	(3)	(4)	
Method of e	estimation	Probit	IV	Probit	IV	
External	K Flows	-0.464	-0.772	-0.454	-0.735	
Constraints –	Liberalization	(-2.21)	(-1.82)	(-2.15)	(-1.75)	
Financial markets	Amortization			1.188	0.963	
	Due			(1.52)	(1.28)	
	(Amortization			-1.812	-1.551	
	Due) <sup>2</sup>			(-1.89)	(-1.75)	
	(Amortization			0.721	0.640	
	Due) <sup>3</sup>			(2.18)	(2.18)	
External	Trade with US	0.004	0.008	0.005	0.008	
Constraints –		(0.73)	(1.05)	(0.81)	(1.08)	
Integration	Trade with EU	-0.050	-0.049	-0.051	-0.048	
		(-3.21)	(-3.43)	(-3.24)	(-3.40)	
Ext. Constraints –	NAFTA	-0.092	-0.157	-0.090	-0.143	
Supranational		(-0.53)	(-0.97)	(-0.54)	(-0.89)	
organizations						
Macroeconomic	Inflation	-0.002	-0.002	-0.001	-0.001	
Variables		(-0.78)	(-1.23)	(-0.52)	(-0.90)	
	Per Capita GDP	-0.007	-0.006	-0.007	-0.006	
	1978	(-2.36)	(-2.20)	(-2.35)	(-2.13)	
Level of Reforms	Level of	0.625	0.730	0.652	0.713	
	Reforms	(2.02)	(1.88)	(1.98)	(1.87)	
Ideology – Actual	Militars	0.299	0.211	0.324	0.239	
Government		(1.69)	(1.42)	(1.78)	(1.52)	
Democracy	Democracy	-0.183	-0.159	-0.191	-0.165	
		(-3.31)	(-3.74)	(-3.40)	(-3.84)	
Corruption	Corruption	0.055	0.058	0.055	0.054	
		(1.06)	(1.14)	(1.03)	(1.02)	
Pseudo R2 (Probit) -	– R2 (IV)	0.0845	0.0816	0.1011	0.1042	
Observations		208	208	208	208	

 TABLE 4 – Results: Latin American Countries (1980-1999)

Note: T-statistics for the coefficients appear below the marginal effects.

**Instruments for K Flows Liberalization**: Government consumption as % of GDP in 1980, Imports as a % of GDP in 1980, and Index of Socioeconomic Conditions from ICRG

The coefficients reported for Amortization Due as % of GDP correspond to an increase of 10 percentage points, and for GDP per capita for 1978 correspond to an increase of 100 dollars. Those for a change in the square and the cubic term of Amortization Due correspond to increases of 100 and 1000 percentage points respectively (equivalent to a 10 % increase in Amortization Due). The coefficients for a change in annual inflation correspond to an increase of 100 percentage points in annual inflation.



Dependent Variable: Reversal (dummy). Instrumental Variables: K Flows Liberalization instrumented					
Type of Variable	Name	(5)	(6)		
Method of esti		Probit	Probit		
External Constraints –	K Flows	-0.401	-0.515		
Financial markets	Liberalization	(-1.85)	(-2.37)		
	Amortization	1.262	1.003		
	Due	(1.60)	(1.28)		
	(Amortization	-1.828	-1.525		
	Due) <sup>2</sup>	(-1.90)	(-1.59)		
	(Amortization	0.716	0.615		
	$Due)^3$	(2.15)	(1.85)		
External Constraints –	Trade with	0.004	0.005		
Integration	US	(0.69)	(0.76)		
C	Trade with	-0.058	-0.054		
	EU	(-3.35)	(-3.24)		
Ext. Constraints –	NAFTA	-0.072	-0.096		
Supranational		(-0.42)	(-0.57)		
organizations					
Macroeconomic	Inflation	-0.002			
Variables		(-0.59)			
	High Inflation		-0.105		
			(-1.26)		
	Hyper		-0.106		
	Inflation		(-0.99)		
	Per Capita	-0.007	-0.006		
	GDP 1978	(-2.33)	(-1.86)		
Level of Reforms	Level of	0.694	0.603		
	Reforms	(2.12)	(1.86)		
Ideology – Actual	Left	-0.183			
Government		(-1.24)			
	Right	-0.292			
		(-2.01)			
	Militars	0.382	0.305		
		(2.04)	(1.68)		
Democracy	Democracy	-0.188	-0.194		
		(-3.51)	(-3.34)		
Corruption	Corruption	0.055	0.061		
		(1.03)	(1.13)		
Pseudo R2 (Probit) – R2	(IV)	0.1149	0.1077		
Observations		208	208		

 TABLE 4 (Cont.) – Results: Latin American Countries (1980-1999)

Note: T-statistics for the coefficients appear below the marginal effects.



Dependent Variab Probit Model. Mar					
Type of Variable	Name	(1)	(2)	(3)	(4)
External	K Flows	-0.306			
Constraints –	Liberalization	(-1.94)			
Financial markets	Rating				
	Lending			-0.021	-0.017
				(-1.77)	(-1.35)
	Amortization	1.331	1.355	1.344	1.573
	Due	(2.24)	(2.23)	(2.21)	(2.56)
	(Amortization	-1.922	-2.022	-2.007	-2.373
	Due) <sup>2</sup>	(-1.97)	(-2.01)	(-1.97)	(-2.39)
	(Amortization	0.821	0.869	0.892	1.033
	$Due)^3$	(1.95)	(2.00)	(2.01)	(2.42)
External	Trade with US	-0.038	-0.044	-0.048	-0.029
Constraints –		(-1.69)	(-1.93)	(-2.24)	(-1.39)
Integration	Trade with EU	-0.000	-0.002	-0.000	-0.001
		(-0.11)	(-0.74)	(-0.08)	(-0.40)
Ext. Constraints –	EU	-0.247	-0.270	-0.286	
Supranational		(-2.70)	(-2.96)	(-3.10)	
organizations					
Macroeconomic	Inflation	-0.023	-0.010	-0.010	-0.012
Variables		(-2.11)	(-1.28)	(-1.28)	(-1.39)
	Per Capita GDP	-0.005	-0.004	-0.002	-0.003
	1990	(-1.73)	(-1.48)	(-1.02)	(-1.30)
Level of Reforms	Level of	1.092	1.070	1.172	1.208
	Reforms	(2.52)	(2.46)	(2.51)	(2.55)
Ideology – Actual	Left				
Government					
	Right				
Democracy	Democracy				0.097
					(3.17)
Corruption	Corruption				
Pseudo R2		0.1874	0.1668	0.1831	0.1883
Observations		152	152	152	152

 TABLE 5 – Results: Transition Countries (1992-2000)

**Note:** The results shown are the marginal effects, dF/dx. T-statistics for the coefficients appear below the marginal effects. The coefficients are not presented The marginal effects reported for Amortization Due correspond to an increase of 10 percentage points, and for GDP and Lending per capita correspond to an increase of 100 dollars. Those for a change in the square and the cubic term of Amortization Due correspond to increases of 100 and 1000 percentage points respectively (equivalent to a 10 percentage points increase in Amortization Due). The lag of annual inflation corresponds to an increase of 100 percentage points.



Dependent Variab Probit Model. Margina	le: Reversal (dumm al effects	ıy).		
Type of Variable	Name	(5)	(6)	(7)
External	K Flows			
Constraints –	Liberalization			
Financial markets	Rating	-0.007	-0.006	-0.011
		(-1.60)	(-1.34)	(-1.95)
	Lending			
	Amortization	1.637	1.728	1.678
	Due	(2.73)	(2.76)	(2.20)
	(Amortization	-2.741	-2.939 (-	-2.897
	Due) <sup>2</sup>	(-2.85)	2.92)	(-2.44)
	(Amortization	1.199	1.291	1.293
	Due) <sup>3</sup>	(2.89)	(2.96)	(2.58)
External	Trade with US	0.05	0.014	-0.032
Constraints –		(0.13)	(0.33)	(-0.59)
Integration	Trade with EU	-0.005	-0.006	-0.002
8		(-2.19)	(-2.24)	(-0.76)
Ext. Constraints – Supranational organizations Macroeconomic	EU Inflation			
Variables		-0.131	-0.133	-0.164
variables	High Inflation			
	Usper Inflation	(-1.75) -0.051	(-1.72) -0.055	(-1.66) -0.029
	Hyper Inflation		-0.033 (-0.54)	
	Per Capita GDP	(-0.52) -0.005	-0.006	(-0.20) -0.003
	1990	-0.003 (-1.44)	(-1.48)	-0.003 (-0.76)
Level of Reforms	Level of	1.573	1.474	1.675
Level of Kelofills	Reforms	(2.32)	(2.26)	(1.82)
Ideology Actual	Left	(2.32)	-0.003	(1.62)
Ideology – Actual Government			(-0.02)	
Oovernment	Right		-0.063	
	Nigili		-0.003 (-0.54)	
Democracy	Democracy	0.048	0.047	
Democracy	Democracy	(1.48)	(1.48)	
Corruption	Corruption	(1.+0)	(1.40)	0.086
Contuption	Contuption			(1.55)
Pseudo R2		0.2638	0.2699	0.2589
Observations		119	119	<u> </u>

TABLE 5 (	(Cont.) – Results:	<b>Transition</b> Cour	ntries (1992-2000)
INDLLS	(COHG) = ACSULS	Transmon Cour	

Note: The results shown are the marginal effects, dF/dx. T-statistics for the coefficients appear below the marginal effects. The coefficients are not presented



Dependent Variable: Reversal (dummy).					
Probit Model. Man	ginal effects		•		
<b>Type of Variable</b>	Name	(1)	(2)	(3)	
External	Rating	-0.007	-0.005	-0.005	
Constraints –		(-1.86)	(-1.13)	(-1.16)	
Financial markets	Amortization Due	0.768	0.956	0.965	
		(1.90)	(2.30)	(2.32)	
	(Amortization	-0.687	-0.799	-0.809	
	Due) <sup>2</sup>	(-1.78)	(-2.03)	(-2.05)	
	(Amortization	0.163	0.181	0.183	
	Due) <sup>3</sup>	(1.82)	(1.99)	(2.00)	
Ext. Constraints –	Trade with US	-0.002	-0.003	-0.003	
Integration		(-0.77)	(-1.12)	(-1.11)	
Ext. Constraints –	EU	-0.274	-0.331	-0.327	
Supranational		(-2.42)	(-3.06)	(-2.82)	
organizations					
Macroeconomic	Inflation	0.013			
Variables		(0.81)			
	High Inflation		0.019	0.016	
			(0.18)	(0.15)	
	Hyper Inflation		0.295	0.291	
			(1.61)	(1.57)	
	Per Capita GDP		-0.003	-0.003	
	1993		(-1.10)	(-1.02)	
Level of Reforms	Level of Reforms	1.114	1.263	1.263	
		(2.81)	(3.16)	(3.15)	
Ideology – Actual	Left			0.022	
Government				(0.15)	
	Right			0.030	
				(0.20)	
Other control	Transition	0.324	0.359	0.359	
variables	Dummy	(2.57)	(2.74)	(2.73)	
Pseudo R2	1	0.0912	0.1166	0.1168	
Observations		224	219	219	

 TABLE 6 – Results: Both Regions (1995-2001)
 Page 100 (1995-2001)

**Note:** The results shown are the marginal effects, dF/dx. T-statistics for the coefficients appear below the marginal effects. The coefficients are not presented

The marginal effects reported for Amortization Due correspond to an increase of 10 percentage points, and for GDP per capita correspond to an increase of 100 dollars. Those for a change in the square and the cubic term of Amortization Due correspond to increases of 100 and 1000 percentage points respectively (equivalent to a 10 percentage points increase in Amortization Due). The marginal effect for a change in the lag of the annual inflation corresponds to an increase of 100 percentage points.



Dependent Variable: Reversal (dummy).						
Probit Model. Marginal effects						
Type of Variable	Name	(4)	(5)	(6)		
External	Rating	-0.007	-0.007	-0.010		
Constraints –		(-1.45)	(-1.49)	(-1.97)		
Financial markets	Amortization	0.936	0.981	1.045		
	Due	(2.17)	(2.33)	(2.27)		
	(Amortization	-0.821	-0.853	-0.885		
	Due) <sup>2</sup>	(-1.97)	(-2.10)	(-2.02)		
	(Amortization	0.192	0.196	0.205		
	Due) <sup>3</sup>	(1.98)	(2.07)	(2.02)		
External	Trade with US	-0.000	-0.007	-0.008		
Constraints –		(-0.16)	(-2.09)	(-2.21)		
Integration	Trade with EU	-0.005	-0.004	-0.004		
		(-1.44)	(-1.49)	(-1.34)		
Ext. Constraints – Supranational organizations	EU					
Macroeconomic	High Inflation	-0.049	-0.071	-0.179		
Variables		(-0.48)	(-0.71)	(-1.64)		
	Hyper Inflation	0.210	0.237	0.321		
		(1.18)	(1.37)	(1.46)		
	Per Capita GDP	-0.000	-0.002	-0.001		
	1993	(-0.11)	(-0.71)	(-0.42)		
Level of Reforms	Level of	1.446	1.723	1.925		
	Reforms	(3.46)	(3.83)	(3.73)		
Ideology – Old	Right		-0.269	-0.347		
Regime			(-2.65)	(-3.14)		
Democracy	Democracy	0.097	0.108	0.068		
		(2.38)	(2.68)	(1.38)		
Corruption	Corruption			0.070		
				(1.36)		
Other control	Transition	0.316				
variables	Dummy	(2.18)				
Pseudo R2		0.1248	0.1357	0.1523		
Observations		219	219	197		

 TABLE 6 (Cont.) – Results: Both Regions (1995-2001)

**Note:** The results shown are the marginal effects, dF/dx. T-statistics for the coefficients appear below the marginal effects. The coefficients are not presented



#### **Appendix 1: Proofs of Propositions**

**<u>Proposition 1</u>**: If  $c > \overline{c}$ , the equilibrium will be of the form  $L \to r \to L \to r$ 

Proof: Conditions A and B hold. Condition C does not hold

2<sup>nd</sup> Term:

R chooses  $\tilde{\pi}^{R}$  and L chooses  $\underline{\pi}$  if elected after first period reforms

R chooses  $\tilde{\pi}^{R}$  and L chooses  $\tilde{\pi}^{L}$  if elected without previous reforms

 $2^{nd}$  Term elections:

Median voter is indifferent without previous reforms

Median voter votes for L after initial reforms

1<sup>st</sup> Term:

R chooses  $\tilde{\pi}^{R}$  if elected (B holds)

L chooses  $\underline{\pi}$  if elected (C does not hold)

*I<sup>st</sup> Term elections (median voter's payoffs):* 

Voting L:  $\left|\underline{\pi} - \widetilde{\pi}^{m}\right| + \beta \left|\underline{\pi} - \widetilde{\pi}^{m}\right| + \kappa$ 

Voting R:  $\left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| + \beta \left| \frac{1}{2} \right| \underline{\pi} - \widetilde{\pi}^{m} \right| + \frac{1}{2} \left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| + \kappa$ 

Payoffs are higher when L is elected for the first term. The equilibrium of the game will be of the form  $L \rightarrow r \rightarrow L \rightarrow r$ 

**Proposition 2:** If  $c < \underline{c}$ , the equilibrium will be of the form  $R \rightarrow r \rightarrow R \rightarrow r$ 

<u>*Proof:*</u> Conditions B and C hold. Condition A does not hold (reversals cannot be ruled out)

2<sup>nd</sup> Term:



R chooses  $\tilde{\pi}^{R}$  and L chooses  $\tilde{\pi}^{L}$  if elected in all cases  $2^{nd}$  Term elections:

Median voter is indifferent without previous reforms

Median voter votes for R after initial reforms

1<sup>st</sup> Term:

R chooses  $\tilde{\pi}^{R}$  if elected (B holds)

L chooses  $\tilde{\pi}^{L}$  if elected (C holds)

1<sup>st</sup> Term elections (median voter's payoffs):

Voting L:  $\left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \beta \left| \frac{1}{2} \right| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \frac{1}{2} \left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| = \left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \beta \left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right|$ Voting R:  $\left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| + \beta \left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| + \kappa$ 

Payoffs are higher when R is elected for the first term. The equilibrium of the game will be of the form  $R \rightarrow r \rightarrow R \rightarrow r$ 

<u>**Proposition 3:**</u> If  $d > \overline{d}$ , the equilibrium will be of the form  $L \to r \to L \to r$ <u>**Proof:**</u> Conditions A and B hold. Condition C does not hold.

Same as in Proposition 1.

**<u>Proposition 4</u>**: If  $d < \underline{d}$ , the equilibrium will have one of the two following forms with

probability <sup>1</sup>/<sub>2</sub> each:  $R \rightarrow nr \rightarrow R \rightarrow r$  or  $R \rightarrow nr \rightarrow L \rightarrow nr$ 

Proof: Conditions A and C hold. Condition B does not hold

 $2^{nd}$  Term:

R chooses  $\tilde{\pi}^{R}$  and L chooses  $\underline{\pi}$  if elected after first period reforms



R chooses  $\tilde{\pi}^{R}$  and L chooses  $\tilde{\pi}^{L}$  if elected without previous reforms  $2^{nd}$  Term elections:

Median voter is indifferent without previous reforms

Median voter votes for L after initial reforms

1<sup>st</sup> Term:

R chooses  $\underline{\pi} - \varepsilon$  if elected (B does not hold)

L chooses  $\tilde{\pi}^{L}$  if elected (C holds)

1<sup>st</sup> Term elections (median voter's payoffs):

Voting L:  $\left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \beta \left| \frac{1}{2} \right| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \frac{1}{2} \left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| = \left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \beta \left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right|$ Voting R:  $\left| \underline{\pi} - \widetilde{\pi}^{m} \right| + \beta \left| \frac{1}{2} \right| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right| + \frac{1}{2} \left| \widetilde{\pi}^{R} - \widetilde{\pi}^{m} \right| = \left| \underline{\pi} - \widetilde{\pi}^{m} \right| + \beta \left| \widetilde{\pi}^{L} - \widetilde{\pi}^{m} \right|$ 

Payoffs are higher when R is elected for the first term because  $\underline{\pi}$  is closer to  $\hat{\pi}^m$  than  $\hat{\pi}^L$ . In the second term, each party is elected with the same probability following their desired policy. The equilibrium of the game will be of the form  $R \to nr \to R \to r$  with probability  $\frac{1}{2}$  and  $R \to nr \to L \to nr$  with probability  $\frac{1}{2}$ .

**Poposition 5:** If corruption increases such that  $a > \hat{a}^R$  and  $a > \hat{a}^L$ , the equilibrium will take the form  $L \to r \to L \to r$ 

<u>Proof:</u> Condition A holds. Conditions B and C do not hold.

2<sup>nd</sup> Term:

R chooses  $\tilde{\pi}^{R}$  and L chooses  $\underline{\pi}$  if elected after first period reforms R chooses  $\tilde{\pi}^{R}$  and L chooses  $\tilde{\pi}^{L}$  if elected without previous reforms  $2^{nd}$  Term elections:



Median voter is indifferent without previous reforms

Median voter votes for L after initial reforms

1<sup>st</sup> Term:

R chooses  $\underline{\pi} - \varepsilon$  if elected (B does not hold)

L chooses  $\underline{\pi}$  if elected (C does not hold)

1<sup>st</sup> Term elections (median voter's payoffs):

Voting L:  $\left|\underline{\pi} - \widetilde{\pi}^{m}\right| + \beta \left|\underline{\pi} - \widetilde{\pi}^{m}\right| + \kappa$ 

Voting R:  $\left|\underline{\pi} - \widetilde{\pi}^{m}\right| + \beta \left|\frac{1}{2}\right| \widetilde{\pi}^{L} - \widetilde{\pi}^{m}\right| + \frac{1}{2} \left|\widetilde{\pi}^{R} - \widetilde{\pi}^{m}\right| = \left|\underline{\pi} - \widetilde{\pi}^{m}\right| + \beta \left|\widetilde{\pi}^{L} - \widetilde{\pi}^{m}\right|$ 

Payoffs are higher when L is elected for the first term. The equilibrium of the game will be of the form  $L \rightarrow r \rightarrow L \rightarrow r$ 

**Proposition 6:** If corruption increases such that  $\hat{a}^L < a < \hat{a}^R$ , the equilibrium will be of the form  $L \to r \to L \to r$ 

Proof: Conditions A and B hold. Condition C does not hold.

Same as in Proposition 1.

**<u>Proposition 7</u>**: If corruption increases such that  $\hat{a}^R < a < \hat{a}^L$ , the equilibrium will have one of the following two forms, with equal probability each:  $R \to nr \to R \to r$  or  $R \to nr \to L \to nr$ 

<u>*Proof:*</u> Conditions A and C hold. Condition B does not hold Same as in Proposition 4.



## **APPENDIX 2 – Additional Tables**

Latin America					
Country	Start of	Freedom House	Initial	"Old-	
	Democracy or	Status: year fall	Government	Regime"	
	fall of old	old	Turnover?	Party	
	regime	regime/2000			
Argentina	1983	PF/F	Yes	Right	
Bolivia	1982	F/F	Yes	Right	
Brazil	1986	F/PF	Yes	Right	
Chile	1990	F/F	Yes	Right	
Colombia	1974	F/PF	Yes	Right	
Costa Rica	1954	-/F	No	Right	
Ecuador	1979	F/PF	Yes	Right	
El Salvador	1984	PF/F	No	Right	
Guatemala	1985	PF/PF	No	Right	
Honduras	1981	PF/PF	Yes	Right	
Jamaica	No old regime	-/F	-	-	
Mexico	2000	-/F	Yes	Right	
Nicaragua	1990	PF/PF	Yes	Left	
Panama	1994	F/F	?	?	
Paraguay	1991	PF/PF	No	Right	
Peru	1980	F/PF	No	Right	
Trinidad &	No old regime	-/F	-	-	
Tobago	_				
Uruguay	1985	F/F	Yes	Right	
Venezuela	1958	-/PF	Yes	Right	

#### TABLE A1 – Political Developments since the fall of the Old Regime Latin America

Notes: Freedom House Status: F=Free, PF=Partly Free, NF=Not Free Government Turnover: Yes, if first elected government is different than the old regime



CountryStart of Democracy or fall of oldFreedom House Status: year fall oldInitial Government Turnover?Albania1991PF/PFNoArmenia1992PF/PFWarAzerbaijan1992PF/PFWarBelarus1992PF/NFNoBosnia1990PF/FWarBulgaria1990PF/FWarCroatia1990PF/FYesEstonia1991F/FYes	"Old-
fall of old regimeold regime/2000Turnover?Albania1991PF/PFNoArmenia1992PF/PFWarAzerbaijan1992PF/PFWarBelarus1992PF/NFNoBosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FYes	
regimeregime/2000Albania1991PF/PFNoArmenia1992PF/PFWarAzerbaijan1992PF/PFWarBelarus1992PF/NFNoBosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FYarCzech Republic1989F/FYes	Regime"
Albania1991PF/PFNoArmenia1992PF/PFWarAzerbaijan1992PF/PFWarBelarus1992PF/NFNoBosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FWarCzech Republic1989F/FYes	Party
Armenia1992PF/PFWarAzerbaijan1992PF/PFWarBelarus1992PF/NFNoBosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FWarCzech Republic1989F/FYes	
Azerbaijan1992PF/PFWarBelarus1992PF/NFNoBosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FWarCzech Republic1989F/FYes	Left
Belarus1992PF/NFNoBosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FWarCzech Republic1989F/FYes	Left
Bosnia1992NF/PFWarBulgaria1990PF/FNoCroatia1990PF/FWarCzech Republic1989F/FYes	Left
Bulgaria1990PF/FNoCroatia1990PF/FWarCzech Republic1989F/FYes	Left
Croatia1990PF/FWarCzech Republic1989F/FYes	Left
Czech Republic 1989 F/F Yes	Left
	Left
Estonia 1991 F/F Yes	Left
	Left
Georgia 1992 NF/PF War	Left
Hungary 1990 F/F Yes	Left
Kazakhstan 1992 PF/NF Yes	Left
Kyrgyz Republic1992PF/NFYes	Left
Latvia 1991 F/F Yes	Left
Lithuania 1991 F/F Yes	Left
Macedonia 1992 PF/PF Yes	Left
Moldova 1992 PF/PF No	Left
Mongolia 1990 PF/F No	Left
Poland 1990 F/F Yes	Left
Romania 1990 NF/F No	Left
Russia 1991 PF/PF Yes	Left
Slovakia 1989 F/F Yes	Left
Slovenia 1991 F/F Yes	Left
Tajikistan 1992 PF/NF No/War	Left
Turkmenistan 1992 PF/NF No	Left
Ukraine 1991 PF/PF No	Left
Uzbekistan 1992 PF/NF No	Left
Yugoslavia 1991 NF/PF War	

TABLE A2 - Political Developments since the fall of the Old RegimeTransition Countries

Notes: Freedom House Status: F=Free, PF=Partly Free, NF=Not Free

Government Turnover: Yes, if first elected government is different than the old regime



Dependent Variable: Reversal (dummy). Instrumental Variables: K Flows Liberalization instrumented				
Type of Variable	Name	(1A)	(1B)	( <b>1C</b> )
	l of estimation	OLS	Probit	IV
Ext. Constraints –	K Flows Liberalization	-0.419	-0.464	-0.772
Financial markets		(-2.03)	(-2.21)	(-1.82)
External	Trade with US	0.004	0.004	0.008
Constraints –		(0.64)	(0.73)	(1.05)
Integration	Trade with EU	-0.046	-0.050	-0.049
		(-3.43)	(-3.21)	(-3.43)
Ext. Constraints –	NAFTA	-0.110	-0.092	-0.157
Supr. organizations		(-0.68)	(-0.53)	(-0.97)
Macroeconomic	Inflation	-0.002	-0.002	-0.002
Variables		(-0.96)	(-0.78)	(-1.23)
	Per Capita GDP 1978	-0.007	-0.007	-0.006
	-	(-2.49)	(-2.36)	(-2.20)
Level of Reforms	Level of Reforms	0.507	0.625	0.730
		(1.80)	(2.02)	(1.88)
Ideology – Actual	Militars	0.233	0.299	0.211
Government		(1.61)	(1.69)	(1.42)
Democracy	Democracy	-0.153	-0.183	-0.159
		(-3.73)	(-3.31)	(-3.74)
Corruption	Corruption	0.039	0.055	0.058
		(0.84)	(1.06)	(1.14)
Pseudo R2 (Probit) – R2 (IV)		0.0952	0.0845	0.0816
Partial R2 of Excluded instruments – 1 <sup>st</sup> . stage				0.2531
F-test of excluded instruments (p-value) –				22.02
1 <sup>st</sup> . stage				(0.00)
Test of over identifying restrictions (p-value)				0.348
				(0.84)
Hausman Test: OLS (fully efficient) vs. IV		1.08		1.08
(less efficient): Chi square statistic (p-value)		(0.99)		(0.99)
Observations		208	208	208

 TABLE A3 – Results: Latin American Countries (1980-1999)

**Instruments for K Flows Liberalization**: Government consumption as % of GDP in 1980, Imports as a % of GDP in 1980, and Index of Socioeconomic Conditions from ICRG (significant at 1% in 1<sup>st</sup>. stage)

**Probit** coefficients correspond to marginal effects

**Partial R2 of Excluded instruments:** Extra explanatory power of instruments **F-test of excluded instruments.** Ho: instruments cannot explain endogenous RHS variable. Reject if p-value < 0.05

**Test of over identifying restrictions.** Ho: Instruments are uncorrelated with error term. Accept if p-value >0.05

Hausman Test. Ho: OLS and IV are not systematically different. Reject if p-value < 0.05



Dependent Variable: Reversal (dummy). Instrumental Variables: K Flows Liberalization instrumented				
Type of Variable	Name	(2A)	(2B)	(2C)
Metho	d of estimation	OLS	Probit	IV
External	K Flows Liberalization	-0.414	-0.454	-0.735
Constraints –		(-2.00)	(-2.15)	(-1.75)
Financial markets	Amortization Due	1.078	1.188	0.963
		(1.46)	(1.52)	(1.28)
	(Amortization Due) <sup>2</sup>	-1.670	-1.812	-1.551
		(-1.92)	(-1.89)	(-1.75)
	(Amortization Due) <sup>3</sup>	0.671	0.721	0.640
		(2.32)	(2.18)	(2.18)
External	Trade with US	0.004	0.005	0.008
Constraints –		(0.70)	(0.81)	(1.08)
Integration	Trade with EU	-0.045	-0.051	-0.048
		(-3.43)	(-3.24)	(-3.40)
Ext. Constraints –	NAFTA	-0.104	-0.090	-0.143
Supranational		(-0.65)	(-0.54)	(-0.89)
organizations				
Macroeconomic	Inflation	-0.001	-0.001	-0.001
Variables		(-0.65)	(-0.52)	(-0.90)
	Per Capita GDP 1978	-0.007	-0.007	-0.006
		(-2.38)	(-2.35)	(-2.13)
Level of Reforms	Level of Reforms	0.526	0.652	0.713
		(1.80)	(1.98)	(1.87)
Ideology – Actual	Militars	0.258	0.324	0.239
Government		(1.69)	(1.78)	(1.52)
Democracy	Democracy	-0.159	-0.191	-0.165
		(-3.84)	(-3.40)	(-3.84)
Corruption	Corruption	0.036	0.055	0.054
		(0.76)	(1.03)	(1.02)
Pseudo R2 (Probit)		0.1153	0.1011	0.1042
Partial R2 of Excluded instruments – 1 <sup>st</sup> . stage				0.2551
F-test of excluded instruments (p-value) –				21.92
1 <sup>st</sup> . stage				(0.00)
	ying restrictions (p-value)			0.737
				(0.69)
Hausman Test: OLS (fully efficient) vs. IV		2.16		2.16
(less efficient): Chi	square statistic (p-value)	(0.99)		(0.99)
Observations		208	208	208

 TABLE A3 (Cont.) – Results: Latin American Countries (1980-1999)

 wndent Veriable: Reversel (dummy)

**Instruments for K Flows Liberalization**: Government consumption as % of GDP in 1980, Imports as a % of GDP in 1980, and Index of Socioeconomic Conditions from ICRG (significant at 1% in 1<sup>st</sup>. stage)

**Probit** coefficients correspond to marginal effects



#### **APPENDIX 3**

#### **Description of Cumulative Reform Indexes**

#### A. European Bank for Reconstruction and Development (EBRD):

Region: Transition countries

Period: 1991-2000

*Description:* Progress of transition countries is measured against the standards of industrialized market economies, recognizing that there is neither a perfectly functioning market economy nor a unique endpoint for transition. The goal is to represent the cumulative progress in the movement from a centrally planned economy to a market economy.

Components: price liberalization, trade and foreign exchange liberalization, small-scale privatization, large scale privatization, infrastructure and enterprise reform, competition policy, and reforms in the banking system and other financial institutions.

*Scale:* each component of this index goes from 1 to 4+, where 1 shows the situation in the pre-reform scenario and 4+ shows the standards and performance typical of advanced industrial countries.

Source: based on expert outside opinion (subjective analysis of objective data)

Reference: Transition Report, EBRD, Various issues

### B. "Nations in Transit", a publication by Freedom House

Region: Transition countries

Period: 1997-2001

Description: countries are measured in terms of both economic and political reforms



*Scale:* from 1 to 7, where a score of 1 shows the maximum reforms and the score of 7, the minimum.

Source: based on expert outside opinion (subjective analysis)

#### C. Lora (1997, 2001): Structural Policy Index

Region: 26 Latin American and Caribbean countries

Period: 1985-1999

*Description:* measures the market freedom allowed by economic policies. The index seeks to reflect the degree of neutrality of economic policies in each area under the assumption that the primary objective of the structural reforms in the economic domain has been to seek greater efficiency in the allocation of productive resources, by eliminating and/or reducing distortions imposed by policies. The quality of economic policies is not being measured. The index is normalized measuring each country's performance relative to the most liberalized country in the region.

*Components:* trade policy, tax policy, financial policy, privatization and labor legislation. *Scale:* from 0 to 1, where 0 means the most interventionist policies and 1 the most neutral ones

Reference: Lora (1997 and 2001)

### D. Morley, Machado and Pettinato (1999)

Region: 16 Latin American countries

Period: 1970-1995

*Description:* build on and extend backwards until 1970 the work by Lora, adding an index of the control of foreign capital transactions and changing some of the other components. The idea of all these indices is that they should depend only on government



policies rather than on outcomes. The index is normalized measuring each country's performance relative to the most liberalized country in the region.

*Components:* trade reform, tax reform, domestic financial reform, privatization and international financial liberalization

*Scale:* 0 to 1, with 1 being the most reformed or free from distortion or government intervention.

Reference: Morley, Machado, and Pettinato (1999)

# E. The Heritage Foundation. Index of economic freedom and government intervention.

Region: 161 countries around the world

Period: 1994-2001

*Description:* Economic freedom is defined as "*the absence of government coercion or constraint on the production, distribution, or consumption of goods and services beyond the extent necessary for citizens to protect and maintain liberty itself.*" The index consists of 50 independent economic variables grouped in 10 broad categories, each of them with an equal weight<sup>64</sup>.

*Components:* The index includes 10 components or broad categories: trade policy, fiscal burden of government, government intervention in the economy, monetary policy, capital flows and foreign investment, banking and finance, wages and prices, property rights, regulation, and black market activity.

<sup>&</sup>lt;sup>64</sup> There is not ex ante reason to have a differentiated weighting, even though The Heritage Foundation is studying the possibility of changing the weights as soon as more observations are available



*Scale:* goes from 1 to 5, where "a score of 1 signifies an institutional or consistent set of policies that are most conducive to economic freedom, while a score of 5 signifies a set of policies that are least conductive."

Source: evaluation of outside experts (subjective analysis)

*Reference:* 2001 Index of Economic Freedom, Chapter 4, The Heritage Foundation *Note:* the 2001 index, for example, contains data for the period covering the last half of 1999 through the first half of 2000, so that it is consider as an index for the year 2000 rather than 2001.



#### REFERENCES

Abed, George and Hamid Davoodi (2000): "Corruption, Structural Reforms, and Economic Performance in the Transition Economies", IMF Working Paper 00/132.

Aghion, P. and P.Bolton (1990): "Government Domestic Debt and the Risk of Default: A Political-economic Model of the Strategic Role of Debt," in R. Dornbusch and M. Draghi, eds., *Public Debt Management: Theory and History*, Cambridge: Cambridge University Press.

Alesina, Alberto and Vittorio Grilli (1992): "The European Central Bank: Reshaping Monetary Policies in Europe", in Canzoneri, M; V. Grilli, and P.Masson (eds.), *Establishing a Central Bank. Issues in Europe and Lessons from the US*, Cambridge University Press

Alesina, Alberto and Guido Tabellini (1990): "A Positive Theory of Budget Deficits and Government Debt," *Review of Economic Studies* 57, pp. 403-14

Åslund, Anders; Peter Boone, and Simon Johnson (2001): "Escaping the Under-Reform Trap", IMF Staff Papers, Vol.48, Special Issue

Auroi, Claude (1998): *Latin American and East European Economies in Transition*, EADI Book Series 21, Frank Cass Publishers, London.

Backal, Daniel; Rafael del Villar, and Juan Treviño (1997): "Experiencia Internacional en la Resolución de Crisis Bancarias", Bank of Mexico Working Paper, December.

Blejer, Mario and Fabrizio Coricelli (1995): *The Making of Economic Reform in Eastern Europe. Conversations with Leading Reformers in Poland, Hungary and the Czech Republic*, Edward Elgar Publishing Ltd.

Block, Steven (2002): "Political Business Cycles, Democratization, and Economic Reform: The Case of Africa", Journal of Development Economics, Vol.67, pp. 205-228

Bruno, M and William Easterly (1996): "Inflation's Children: Tales of Crises that Beget Reforms", American Economic Review Papers and Proceedings 86, pp. 213-17

Calvo, Guillermo and Carmen Reinhart (1999): "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options", Mimeo, University of Maryland.

Cukierman, Alex and Mariano Tommasi (1998): "Credibility of Policymakers and of Economic Reforms", in F. Sturzenegger and M. Tommasi eds., *The Political Economy of Reform*, Cambridge, MA. MIT Press

Dewatripont, Mathias and Gerard Roland (1995): "The Design of Reform Packages under Uncertainty", The American Economic Review, Vol. 85, pp. 1207-1223.



Drazen, Allan (2000): *Political Economy in Macroeconomics*, Princeton University Press.

Drazen, Allan and William Easterly (2001): "Do Crises Induce Reform?: Simple Empirical Tests of Conventional Wisdom", Economics and Politics, Volume 13, N°2, pp. 129-158

East European Constitutional Review (2001), Volume 10, Number 1, Winter issue

EBRD (2000): *Transition Report 2000*, European Bank for Reconstruction and Development

Falcetti, Elisabetta, Martin Raiser and Peter Sanfey (2000): "Defying the Odds: Initial Conditions, Reforms and Growth in the First Decade of Transition", EBRD Working Paper N° 55.

Fischer, Stanley and Ratna Sahay (2000): "The Transition Economies after Ten Years", IMF working Paper 00/30.

Freedom House (1998): Nations in Transit

Geddes, Barbara (1993): "The Initiaition of New Democratic Institutions in Eastern Europe and Latin America", IRIS Working Paper N° 80, University of Maryland at College Park.

IDB (1997): *Economic and Social Progress in Latin America. 1997 Report.* Inter-American Development Bank, Washington, DC.

Giavazzi Francesco and Marco Pagano (1988): "The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility", European Economic Review 32, pp. 1055-1082

Grzymala-Busse, Anna (1999): "Redeeming the Past: The Reinvention of Communist Successor Parties in East Central Europe after 1989". Doctoral dissertation, Government Department, Harvard University, Cambridge, MA.

Havrylyshyn, Oleh and John Odling-Smee (2000): "Political Economy of Stalled Reforms". Finance and Development, September.

Jasiewicz, Krzysztof (1998): "Elections and Voting Behavior", ", in S.White, J.Batt and P.Lewis eds. *Developments in Central and East European Politics*, Duke University Press.



Kaminski, Marek; Grzegorz Lisswski, and Piotr Swistak (1998): "The "Revival of Communism" or the Effect of Institutions? The 1993 Polish Parliamentary Elections." Public Choice 97, pp. 429-449

Klemperer, Paul (1987): "Markets with Consumer Switching Costs", The Quarterly Journal of Economics, Volume 2 (2), pp. 375-394.

Krugman, Paul (1998): "How Washington worsened Asia's crash. The Confidence Game", The New Republic On Line, 10/05/98

Lewis, Paul (1998): "East-Central Europe: The Czech Republic, Slovakia, Hungary and Poland", in S.White, J.Batt and P.Lewis eds. *Developments in Central and East European Politics*, Duke University Press.

Lora, Eduardo (1997): "A Decade of Structural Reforms in Latin America: What Has Been Reformed and How to Measure It?", Inter-American Development Bank, Working Paper Green Series #348.

Lora, Eduardo (2000): "What Makes Reforms Likely? Timing and Sequencing of Structural Reforms in Latin America", Inter-American Development Bank, Working Paper N° 424.

Lora, Eduardo (2001): "What has been reformed and how to measure it" Inter-American Development Bank Research Department Working Paper (forthcoming), Washington, DC.

Martinelli, Cesar and Akihiko Matsui (2002): "Policy Reversals and Electoral Competition with Privately Informed Parties", Journal of Public Economic Theory, 4 (1), pp.39-61

McKinnon, R and Huw Pill (1998): "International Overborrowing: A Decomposition of Credit and Currency Risks". World Development, Vol.26, pp. 1267-1282

Morley, Samuel; Roberto Machado and Stefano Pettinato (1999): "Indices of Structural Reforms in Latin America", UN Economic Commission for Latin America, Serie Reformas Economicas, N°12

Mukand, Sharun (1999): "Globalization and the "Confidence Game"", Discussion Paper 99-24, Department of Economics, Tufts University

Murphy, Kevin; Andrei Shleifer and Robert Vishny (1992): "The Transition to a Market Economy: Pitfalls of Partial Reform", Quarterly Journal of Economics, Vol.107, Issue 3, pp. 889-906.

Murrell, Peter (1992): "Evolutionary and Radical Approaches to Economic Reform", Economics of Planning, 25, pp. 79-95



Naím, M. (1994): "Latin America: The Second Stage of Reform", Journal of Democracy 54

Olson, David (1998): "The Parliaments of New Democracies and the Politics of Representation", in S.White, J.Batt and P.Lewis eds. *Developments in Central and East European Politics*, Duke University Press.

Raiser, Martin; Maria Di Tommaso, and Melvyn Weeks (2000): "The Measurement and Determinants of Institutional Change: Evidence from Transition Economies", EBRD Working Paper N°60

Tommasi, Mariano and Andres Velasco (1996): "Where are we in the Political Economy of Reform", Journal of Policy Reform, Vol.1, pp. 187-238

Tucker, Joshua A. (1999a): "It's the Economy, Comrade! A Model of the Effect of Economic Conditions on Election Results in Transition Countries", Harvard University. Paper presented at the Annual Meeting of the American Political Science Association, Atlanta, GA, September 2-5..

Tucker, Joshua A. (1999b): "Reconsidering Economic Voting: Party Type vs. Incumbency in Transition Countries", Harvard University. Paper presented at the Annual Meeting of the American Political Science Association, Atlanta, GA, September 2-5.

Végh, Carlos (1992): "Stopping High Inflation", IMF Staff Papers, Vol.39, pp. 626-695

Wei, Shang-Jin (1999): "Corruption in Economic Development: Beneficial Grease, Minor Annoyance, or Major Obstacle?", The World Bank, Policy Research Working Paper N° 2048.

Wightman, Gordon (1998): "Parties and Politics", in S.White, J.Batt and P.Lewis eds. *Developments in Central and East European Politics*, Duke University Press.





