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Bayesian learning about policies

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Abstract: Esta obra se presentó como tesis doctoral en el Departamento de Ciencia Política y de la Administración de la Universidad Autónoma de Madrid el 5 de Marzo de 2002. El Tribunal, compuesto por D. José María Maravall (Presidente), D. Joan Esteban, Dña. Clara Riba, D. Ludolfo Paramio y D. Modesto Escobar, le otorgo la calificación de Sobresaliente "cum laude". La tesis de Covadonga Meseguer Yebra tiene como pregunta fundamental si los gobiernos adoptan las mismas políticas económicas como consecuencia de un proceso de aprendizaje. Partiendo de la constatación de que en los años 1980 y 1990 se ha producido una convergencia hacia un modelo de política económica basado en un mayor protagonismo del mercado, la tesis indaga en si tal giro tanto en las ideas como en la practica se ha debido a un proceso de revisión de las relaciones causa–efecto entre políticas y resultados, es decir, a un proceso de aprendizaje. Según esta explicación, la convergencia en políticas económicas habría sido consecuencia de observar los malos resultados de políticas económicas basadas en una participación activa del estado en la economía y observar, por contra, que las políticas económicas basadas en la apertura, la liberalización, la desregulación y la privatización han sido mejores a la hora de generar crecimiento económico. Los gobiernos habrían observado estas experiencias tan diferentes y habrían extraído una serie de conclusiones sobre que políticas fracasan y cuales son exitosas, convergiendo hacia aquellas consideradas como comparativamente mejores. Este es el argumento que la tesis explora. El principal reto que este argumento plantea es su contraste empírico riguroso. Si bien se ha escrito mucho sobre aprendizaje, la discusión se ha mantenido a un nivel puramente conceptual. Para superar esta carencia de contrastes empíricos, la tesis utiliza un modelo de aprendizaje Bayesiano, que consiste en caracterizar a los gobiernos como aprendices racionales, esto es, como agentes que hacen uso de toda la información disponible acerca de los resultados de las políticas y revisan con esos resultados sus creencias sobre que resultados esperar de ciertas políticas económicas. El trabajo de Covadonga Meseguer Yebra aplica este modelo a la adopción de cuatro políticas de mercado: la decisión de privatizar, de liberalizar el comercio, de entrar en acuerdos con el Fondo Monetario Internacional y, finalmente, la decisión de conceder independencia a los Bancos Centrales. El modelo se aplica a un numero extenso de países desarrollados y subdesarrollados en un periodo que, con algunas diferencias, abarca desde 1950 a 1990. Además, la tesis no se limita a contrastar la hipótesis de aprendizaje como móvil fundamental de la convergencia reciente en políticas económicas. Indaga además en otras

explicaciones alternativas para esa convergencia como son la imposición externa de políticas de mercado, la mera imitación —sin aprendizaje— de las políticas llevadas a cabo por otros países y finalmente la hipótesis de que son las ideas, no la experiencia, las que han determinado la ola de políticas económicas de mercado. Los resultados de la investigación son francamente interesantes. En primer lugar, la hipótesis de que la adopción de políticas de mercado ha estado relacionada con un proceso de aprendizaje o revisión de creencias a la luz de la experiencia se confirma en al menos tres de las cuatro políticas analizadas. En segundo lugar, además de responder a la pregunta de si el aprendizaje ha sido o no un factor significativo en la adopción de estas políticas, los contrastes arrojan una información muy relevante, por ejemplo, la trascendencia que para algunos países y políticas ha tenido la existencia de un modelo cercano y exitoso a la hora de adoptar ciertas políticas, la actitud claramente conservadora con que los gobiernos se han aproximado a la adopción de políticas cuyos resultados han exhibido una enorme variabilidad en países y regiones o, por el contrario, la propensión que algunos gobiernos han mostrado a asumir los riesgos de políticas drásticas cuando se han visto enfrentados a malas perspectivas económicas. Finalmente, la investigación muestra como la experiencia parece ser de nula relevancia en la decisión de perseverar en políticas de mercado. La autora argumenta que es en esta decisión donde las ideas económicas, en concreto, la forma en que las ideas neoliberales relacionan políticas y resultados, parece haber sido determinante en la decisión de continuar con políticas que no siempre han producido buenos resultados. En suma, la tesis se plantea una pregunta ambiciosa y compleja abriendo un terreno prácticamente inexplorado con una metodología innovadora y gran rigor analítico.

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BAYESIAN LEARNING ABOUT POLICIES

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Esta obra se presentó como tesis doctoral en el Departamento de Ciencia Política y de la Administración de la Universidad Autónoma de Madrid el 5 de Marzo de 2002. El Tribunal, compuesto por D. José María Maravall (Presidente), D. Joan Esteban, Dña. Clara Riba, D. Ludolfo Paramio y D. Modesto Escobar, le otorgo la calificación de Sobresaliente "cum laude".

Covadonga Meseguer Yebra es licenciada en Ciencias Económicas por la Universidad de Valladolid. Formó parte de la novena promoción de estudiantes del Centro de Estudios Avanzados en Ciencias Sociales del Instituto Juan March de Estudios e Investigaciones, donde obtuvo el título de *Master* en 1998. Fue investigadora visitante en el European Center for the Analysis in the Social Sciences (Universidad de Essex) y Fulbright Scholar en el Departamento de Ciencia Política de la Universidad de Nueva York, donde concluyó su tesis doctoral bajo la dirección del Profesor Adam Przeworski. Ha sido profesora asociada en el Departamento de Ciencia Política de la Universidad de Burgos y en la sede española de la Universidad de Saint Louis.

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LIST OF ABBREVIATIONS

CBI	Central Bank Independence
ECLA	Economic Commission for Latin America
EO	Export Orientation
FDP	Freedom Democratic Party
EU	European Union
IFIs	International Financial Institutions
IMF	International Monetary Fund
IS	Import Substitution
LDCs	Less Developed Countries
NICs	New Industrial Countries
NAFTA	North American Free Trade Agreement
OECD	Organization for Economic Cooperation and Development
SOEs	State-Owned Enterprises
TOR	Turnover Rate of Governors
WTO	World Trade Organization

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CHAPTER I

THE QUESTION

1.1. Introduction

In much of the developing world, the 1980s and 1990s were decades of radical economic change. Whereas in the 1960s and 1970s the prevailing model of development was based on state intervention and inward-looking policies, the 1980s and 1990s were years characterized by the advocacy of market-oriented reforms. These reforms, packaged under the so-called Washington Consensus, aimed at opening up the national economies and at reducing the role of the state in the economy[1]. The extent of the consensus became so broad that some described the new state of the debate on development as one of "universal convergence"[2] (Williamson, 1990, 1994; Biersteker, 1995; Rodrik, 1996: 9).

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[1] The Washington Consensus comprises ten policy prescriptions: fiscal discipline, adjustment of public expenditure priorities, tax reform, financial liberalization, exchange rate adjustment, trade liberalization, promotion of foreign direct investment, privatization, deregulation and support of property rights (Williamson, 1990, 1994). For stylistic reasons, I refer to these measures as "market reforms" and "neo-liberal programs".

[2] John Williamson acknowledges the existence of broad areas of disagreement in the Washington Consensus. See Williamson (1993) for a discussion. Also, note that this global trend toward market-oriented policies has not precluded the existence of differences in the timing of reforms, in their speed and intensity as well as in their fate. Yet, the goal of this research is not to explain those differences but to explain why the thrust of economic policy,

A widespread argument to explain the recent wave of economic reforms is that governments learned from the contrasting experiences under alternative models of development. This learning would have entailed a change in the mapping from policies to economic outcomes, and a change in beliefs about the consequences of actions and the optimal strategies in a changing economic environment (Kahler, 1990, 1992; Haggard and Kauffman, 1992; Hall, 1993; Biersteker, 1993; Tommasi and Velasco, 1995; Haggard and Webb; 1994; Maravall, 1997; Krueger, 1997).

Yet, the learning hypothesis remains untested. Hence, the question: have governments switched to market-oriented policies as a result of learning?

The story of the "universal convergence" could be told along the following lines.

The model of inward-oriented industrialization, epitomized by the experience of many Latin American countries in the 1960s and 1970s, resulted in a resounding failure. The bias against exports caused enormous balance of payments crises. Devaluations, inflation and fiscal indiscipline became common. Governments borrowed massively from abroad to close the external and fiscal gaps. At the beginning of the 1980s, Mexico's debt moratorium alarmed foreign creditors, who cut off lending. Without credit to finance the pervasive fiscal deficits, governments resorted to the printing press, which eventually resulted in hyperinflations and economic stagnation. Moreover, proliferation of controls and protection of industries and sectors were an invitation to evasion, rent-seeking and corruption (Tommasi and Velasco, 1995: 1-3; Krueger, 1993; Krueger, 1997).

In clear contrast and simultaneously, Chile and the East Asian tigers (Korea, Singapore, Hong Kong and Taiwan) achieved phenomenal rates of growth by relying on market mechanisms and a greater integration into the world economy. The hallmark of this strategy was an export promotion policy, taken to be the

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especially in the developing world, has been so different in the 1980s than in the 1970s (Stallings, 1992: 43).

quintessential illustration of the virtues of a small state. At the end of the 1980s, the collapse of communist rule in Eastern Europe provided the final blow to the idea that state intervention was a requisite for development. By mid 1980s, even these countries became intrigued by market-oriented reforms.

These changes in the South and the East took place amid a neo-liberal revolution in the North. At the beginning of the 1980s, Conservatives in Great Britain and Republicans in the U. S. launched a campaign against "big government". The neo-liberal revolution put an end to the Keynesian Consensus, which dominated public affairs since World War II.

Thus, governments would have observed those contrasting experiences and changed their beliefs about the economic consequences of alternative models. Even short-sighted politicians could not have avoided the conclusion that the old policies had failed and that the new orthodoxy had produced economic success (Kahler, 1990: 33).

In order to test this story with rigor, one needs an operational concept of learning. Although the discussion about learning has been prolific, it has focused more on definitional questions than on empirical issues or theory building (Heclo, 1974; Odell, 1984; Sabatier, 1987; March and Olsen, 1989; Rose, 1991; Bennett and Howlett, 1992; May, 1992; Hall, 1993; Pearson, 1993; Levy, 1994; Adler and Haas, 1997; Stone, 1999).

To fill this gap in empirics, I assume that governments act as rational (Bayesian) learners. Governments update their initial beliefs about the expected results of alternative policies with all available information about policy outcomes in the past and elsewhere. After updating their beliefs, governments choose the policy that is expected to yield the best results in terms of growth[3]. Hence, the model I test is one in which politicians first learn in the

[3] Note that I am assuming that governments judge the success of market reforms in terms of their potential to resume economic growth. However, this is not the only economic variable governments may consider when evaluating the success or failure of market-oriented policies. Results in terms of inflation, unemployment or the public deficit may also be of interest for politicians.

light of experience and then make rational choices on the basis of what they have learned. Having been exposed to the same information, governments will converge in their beliefs, hence, in their choices. This is a model in which governments' preferences for market-reforms are endogenous and dynamic. It is the experience under alternative policies what determines the evolution of preferences overtime.

1.2. Governments, Market Reforms and Learning

The vast literature on the political economy of market reforms[4] usually assumes that at least some reforms are desirable[5]. With this assumption in mind, these studies focus on the social and political factors that preclude, delay or promote the adoption of reforms and their sustainability through time[6].

According to these studies, the conjunction of a deep economic crisis and a new government with a big mandate are good predictors that economic reforms will be launched. A coherent and autonomous economic team supported by a "visionary" leader, compensation to the groups that result damaged by the adjustment and some external financial aid are usually cited as requisites for reform sustainability. The way in which these and other variables operate has been extensively documented, so I do not delve into them (see footnote 4).

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[4] See Nelson (1990), Grindle and Thomas (1991), Przeworski (1991), Haggard and Kaufman (1992), Bates and Krueger (1993), Krueger (1993), Harberger (1993), Taylor (1993), Harrison (1993), Haggard and Webb (1994), Smith et. al. (1994), Nelson (1994), Wiliamson (1994), Tommasi and Velasco (1995), Rodrik (1996), Maravall (1997), Weyland (1996, 1998), Sturzenegger and Tommasi (1998) and Drazen (2000) among others.

[5] For criticisms and nuances about the desirability of reforms, see for example, Murrell (1991), Przeworski (1992), Bresser et. al. (1993), Rodrik (1996) and Stiglitz (1999).

[6] A good summary of formal models on inaction and delay as well as on economic reforms and economic transition can be found in Drazen (2000) chapters 10 and 13.

Instead, I focus on governments and their preferences for market reforms.

It is not at all obvious why governments interested in holding on to office may find market reforms desirable. Reforms are highly uncertain. Actually, the only certain thing is that reforms will make most of the population worse-off, at least temporarily (Przeworski, 1992: 45). Given the political risks these policies entail, their adoption is striking.

For some authors, politicians' preference for adjustment is a question of "vision", "political will" and even "heroism" (Harberger, 1993; Williamson, 1994). Politicians that embark in reforms are heroes because they are willing to "lift their sights beyond the next election" and run high electoral risks for the common good. Obviously, this reading only makes sense if reforms are viewed as intrinsically virtuous and uncontroversial. As an explanation of governments' preferences, this is a poor explanation.

For other authors, governments' preference for reforms stems from ideological reasons. As reflected in the fact that reform pioneers were right-wing military governments (for example, Chile under Pinochet and Korea under Park), the widespread contention is that market-reforms are the natural preference of rightist governments. Also, some measures of the Washington Consensus were vigorously defended by prominent rightist leaders in the North (as Ronald Reagan and Margaret Thatcher). And finally, domestic and foreign business groups, which are a traditional constituency of the right, frequently pressed in favor of adjustment (Williamson and Haggard, 1994: 570-571).

However, explanations based on ideological preferences cannot address why democratically elected leftist and populist governments also engaged in reforms imposing the biggest sacrifices on their constituencies, labor and the poor. Socialists in Spain (under Felipe Gonzalez), Labor governments in New Zealand (under David Lange) and Australia (under Bob Hawke), Peronists in Argentina (under Carlos Menem) and socialdemocrats in Brazil (under Fernando H. Cardoso) are just some examples.

I pursue another line of reasoning and I argue that governments' preferences for market reforms have been shaped by experience, particularly, by learning from policy failures and policy successes.

The hypothesis that crises facilitate reforms is the most popular. Yet, it is also hotly debated. For instance, Dany Rodrik has argued that since there is no a definition of crisis, the hypothesis cannot be falsified. Actually, it is a tautology: "reform naturally becomes an issue only when policies are perceived not to be working. A crisis is just an extreme case of policy failure. That reform should follow crisis, then, is no more surprising than smoke following fire" (1996: 27; also Toye, 1994).

However, Drazen contends that there is something to be explained if, using Rodrik's metaphor, only big fires but not small or medium ones cause reforms (2000: 444-446). If this is the case, and only hyperinflations or burgeoining fiscal deficits or exploding imbalances in external accounts cause reforms, the subsequent question is why crisis have to be deep in order to spur policy switches.

Periods of deep economic disarray and the accompanying sense of loss of control, deep uncertainty and looming catastrophe may weaken the power of vested interests that otherwise would block reforms. Also, the sense that something must be done creates room for special politics, that is, for a temporal suspension of the regular channels by which interest groups, party politics and legislatures influence the policy-making process[7] (Drazen, 2000: 447; Balcerowicz, in Williamson, 1994).

Note that this mechanism, which links deep crisis with an enhanced capacity for action, does not reveal anything about the content of the response. But, if under particular circumstances governments' autonomy increases, agency's preferences turn out

[7] Sometimes big mandates and a divided opposition spontaneously give governments big room to maneuver (as in Spain, 1982). Other times, this room is deliberately created granting the executive special powers for swift action.

to be crucial to understand policy choices[8] (Graham and Thomas, 1991).

Deep crises generally come with some diagnostic of their causes. In this sense, the diagnostic carries some policy content along, at the very least, about what should be avoided.

Kurt Weyland's account of the adoption of market-oriented reforms addresses politicians' motives for action and the content of their choices (1996, 1998). Weyland contends that market reforms can be explained in the light of Prospect Theory (Kahneman and Tversky, 1997). According to this psychological approach to decision making, individuals make risky choices only when confronted to the prospect of big losses. A deep crisis places decision-makers in the domain of losses. As a result, governments are willing to launch draconian adjustment measures. For instance, the adoption of market reforms followed hyperinflations in Argentina, Bolivia, Brazil, Peru and Poland. In Chile, Ghana, Senegal, Russia and Tanzania, reforms were adopted amidst uncontrolled fiscal or external deficits and widening shortages of goods.

Besides, according to Weyland, new governments can overcome the strong status-quo bias that characterizes decision-making. Since changing course of the political economy implies the admittance of failure of the previous course of action, insiders are unlikely to endorse radical shifts in policy. However, new leaders are not affected by this bias. Actually, new leaders adopted radical policies to signal a break with past policies viewed as failures. Alberto Fujimori in Peru (1990) implemented a drastic reform program after the failed heterodox experiments of Alan Garcia. The same applies to Fernando Collor de Mello and Carlos Menem in Brazil and Argentina respectively. And Frederick Chiluba in Zambia (1991) launched a program of economic

[8] Bates and Krueger's review of several episodes of reform concludes: "one of the most surprising findings of our case studies is the degree to which the intervention of interest groups fails to account for the initiation or lack of initiation of policy reform" (1993: 454).

reforms after the heterodox adjustment program of Kaunda had collapsed.

Hence, under this account, the adoption of market reforms appears as a reaction to previous failed policies (also, Nelson, 1990: 335). Whether that reaction entailed an improved understanding of the relationship between policies and outcomes is not specified[9].

The mechanism that relates deep crisis with the content of the response is precisely learning.

Tommasi and Velasco argue that "crises (…) contribute to Bayesian learning about the "right" model of the world. A period of intense economic disarray leads to a reassessment of the mapping from policies to outcomes, in particular, to a realization of how costly some previous policies were" (pp. 17-18). In the same vein, Harberger asserts that politicians have particular world-views that may contain sensible explanations for bad economic outcomes. However, "every now and then, something happens that does not fit the previous image – something that shakes our Bayesian faith in what we used to think" (in Tommasi and Velasco, 18). A period of deep economic disarray is a good candidate to provoke that breakdown of faith.

The contention that governments' preferences for neo-liberal reforms have been shaped, at least in part, by the experience of policy failure is widely endorsed by analysts and policy-makers alike.

For instance, Maravall (1997: 168), discussing the adoption of reforms in Eastern and Southern European countries, holds that "some leaders sought to avoid experiments which might prove costly in political or economic terms. They were more likely to

[9] The same behavior applies to the electorate. The prospect of big losses makes them acquiesce and even support the reforms. Weyland contends that reforms continue because as soon as adjustment yields results, the electorate is placed in the domain of gains, where individuals are risk-averse. This interpretation overlooks that fact that, quite often, reforms only resume growth after long lags, if they ever resume it.

make this choice if they were particularly influenced by past experiments, whether in their own country or elsewhere".

The President of Panama in 1984-1985, Nicolas Ardito-Barletta, asserted that "there is a national learning process that permits society to discover through trial-and-error how to arrive at new (…) policies that are beneficial to the majority (1994: 461). And he adds "the national learning process as a vehicle for economic policy change and stability is most useful when there is a national memory of past economic policy performance. Documented records of the failures or inadequacies of past policies are powerful teaching devices to support policy changes" (1991: 286).

Iwan Azis, in his analysis of the adjustment process in Indonesia states that "certainly, a 'learning process' has taken place during the course of Indonesia's development over the last 25 years", lessons that "policy makers (…) eventually grasped and diggested" (1994: 410). And, finally, Arriagada and Graham (1994: 282) contend that, in Chile, short-term populist strategies were discredited by "the chaos in neighboring countries, [which] made macroeconomic restraint much more politically palatable".

As much as crises reveal information about what not to do, good performances reveal information about alternative courses of action. If learning actually occurs, "the experience of many reforming countries (assuming a modicum of success) will (…) be imitated by others before having to experience themselves a crisis and the associated economic pain" (Tommasi and Velasco, 1995: 19). Therefore, learning from successful reform experiences could explain the adoption of reforms in countries like Colombia (1985) that did not experience a deep crisis and still adjusted.

For example, Moises Naim (1993: 46), former Venezuelan Minister of finance, contends that Carlos A. Perez's vision was influenced by the governing experiences of two of his closest personal and political friends:

> "…the catastrophic failure of president Alan Garcia in Peru and the successful reforms of Felipe Gonzalez in Spain. Perez was able to

> follow the policies and performance of these two governments very closely and his priviledged vantage point allowed him to jugde the consequences of the two radically different approaches"

The outstanding performances of Chile and the East Asian tigers seem to have been the most important sources of inspiration. Crucial to the appeal of the alternative those cases epitomized was the interpretation of the secret of their success. While the crises of the 1980s were seen as the result of too much state intervention, the Chilean and East Asian experiences were taken to be the living examples of the benefits of state withdrawal. Much has been written about the validity of this interpretation, which is dubious[10]. Yet, it became the official creed in International Financial Institutions (IFIs) and international policy-making circles. Apparently, domestic political elites were also influenced by these examples.

For instance, Richard Webb, governor of the Peruvian Central Bank between 1980 and 1985, stated that "this change in perception [in favor of market reforms] (…) [had] been reinforced by a broad flow of information on the experience, policies and opinion in other countries. The Chilean experience has been particularly influential in Peru" (1994: 373).

Rose Garnant (in Williamson, 1994: 51), personal economic adviser to Bob Hawke, explained that "the success of outward-looking policies in East Asia exercised subtle and indirect influences over Australian policy discussion". And the president of the Venezuelan Central Bank, Miguel A. Rodriguez, stated that "economists and policymakers in Latin America saw the per-capita income growth of the Asian countries over the past twenty years and became more and more convinced that the opening of

[10] To give a telling example, Rodrik shows that of the 10 measures endorsed by the Washington Consensus, South Korea followed five and Taiwan about six. Interestingly, "neither country significantly liberalized its import regime until the 1980s. Both countries interfered in the investment decisions of private enterprises. And far from privatizing public enterprises, both countries actually increased their reliance on such enterprises during the crucial decade of the 1960s" (1996: 18).

the economy was the best way to produce a real transformation in Latin American societies…" (1994: 377).

But available experience seems not to have been treated in an indiscriminate way. As Robinson suggests (1998), the informative value of particular experiences increases with historical, cultural and institutional similarities. Psychological accounts of learning also show that proximity to the source of information makes some experiences more relevant than others (Hacking, 1997; Kyburg, 1997).

For example, Enrique Iglesias, president of the Inter-American Development Bank, contends that "the ideas developed in the North during the Reagan-Thatcher era were very important in Latin America, but the Chilean experience was far more significant in so far as it provided a viable model. The success of the Chilean experience "was very much noted by other regional leaders". He adds, "Southeast Asia also had some relevance as a model for Latin America, but it was viewed with some doubts because the Asian region was made up of many diverse countries with different social and cultural environments (…) whereas Chile presented a far more relevant example to emulate" (1994: 493-494).

On the contrary, Allan Bollard, referring to the reforms in New Zealand, argued that "the reform experience in the Southern Cone countries was not seen as relevant to New Zealand, given the problems of hyperinflation, political instability and capital flight that existed there. Margaret Thatcher was putting into place some microeconomic reforms and spending restraints in Britain at the times, and there were certainly lessons to be learned from the British restructuring recession of the early 1980s" (1994: 98)

Putting all the pieces together, it seems that governments' preferences for market reforms are not exogenous. On the contrary, they appear to have been the upshot of a learning process. Very bad experiences discredited a particular course of action and successful experiences gave credit to an alternative one. How those contrasting experiences were interpreted was crucial: the diagnostic of the cases of success (less state intervention and

outward-oriented policies) was exactly the opposite of the diagnostic of the cases of failure (too much state involvement and inward-oriented development). Lessons were drawn somewhat selectively on the basis of geographic propinquity or linguistic and cultural similarities. As a result of this learning process, switches to market-oriented policies occurred.

This is the story I test here.

Note that the question as to whether governments continued under market- oriented policies as a result of learning is more complex and the role of learning more difficult to isolate. The room for "special politics" generally decreases with time and agency's autonomy decreases along with it. The most urgent aspects of crises, such as hyperinflation, are generally resolved after a short period, honeymoons end and political opposition may reorganize. Also, reforms may create their own basis of support among specific groups. Thus, after reforms have been introduced, the host of domestic variables that influence whether reforms collapse or endure increases dramatically. It is an empirical question whether learning is one of the variables that influences endurance under market-oriented reforms. I also explore this question here.

In order to test the learning hypothesis, I assume that governments are Bayesian learners. Bayesian learning provides an operational concept of learning based on Bayes' rule. Using that rule, governments combine certain prior beliefs about the expected growth outcomes that would follow alternative policies with all the available experience under those policies in the past and elsewhere. Hence, I assume that governments update their beliefs in the light of experience and that they choose policies on the basis of updated beliefs. Using statistical techniques, I relate this learning process to observed policy choices, thereby addressing the impact of learning on the decision to switch to and remain under market-oriented reforms.

1.3. Overview of Alternative Hypothesis

Learning is only one of the possible mechanisms to explain the recent wave of market reforms. I explore three other mechanisms of convergence.

First, adjustment may not have been a deliberate choice but the result of an *external imposition*. Second, governments may have adopted market-reforms as a result of mere *emulation*. And third, the recent convergence to neo-liberal policies may have been an expression of the power of neo-liberal *economic ideas*.

Regarding external imposition, the clearest example is the leverage exerted by IFIs, whose policy prescriptions are aligned with the Washington Consensus. External imposition is epitomized by the concept of conditionality. Briefly, to avoid the moral hazard problems that may arise due to the existence of a lender of last resort, IFIs exchange loans for adjustment measures.

However, it is not always correct to identify conditionality with imposition. Some authors argue that IFIs do not "force" but "teach". According to this view, IFIs have contributed to policy-makers' learning process through dialogue and persuasion. Thus, what appears as imposition may actually be a case of "technocratic alignment", or in other words, a coincidence of interests between IFIs and local policy-making cadres socialized in the same set of ideas[11]. As Kahler puts it "[t]he IFIs and other external agencies have a strong interest in shaping the process of learning by national governments in directions that will lead to greater alignment with external policy preferences" (1992: 125).

Also, governments have purposively sought IFIs' conditionality to legitimate the adoption of policies governments want. A closer scrutiny to the interaction between IMF and local governments shows that, in many cases, governments have actually used the IMF as a scapegoat to overcome domestic

[11] Much has been written about the role played by technocrats as epistemic communities in some of the most relevant cases of policy reform. The "Chicago Boys" in Chile is the archetypical case. The 'Berkely mafia" in Indonesia, MIT economists in Mexico and those of Harvard in Poland are other examples.

opposition to policies they wanted. Calling in an "external villain" allows governments to get around the responsibility for adopting unpopular measures. And since a rejection of the IMF sends a bad signal to creditors and investors, domestic opposition may acquiesce (Vreeland, 2000).

This is not to say that IFIs played no role in the adoption and implementation of market reforms. As I discuss in Chapter VI, IFIs provided financial assistance that made adjustment feasible and sustainable in quite a few episodes of reform. However, interpreting that governments were yielding to the pressure of IFIs when they endorsed those policies may not always be correct (Nelson, 1990; Kahler, 1992; Stallings, 1992; Haggard and Webb, 1994.).

In this study, and due to data availability, I only consider the impact of IMF agreements on the decision to switch to and remain under market-reforms. Note, however, that participation in international arrangements (like successive World Trade Organization rounds) and processes of greater economic integration (like the North American Free Trade Agreement, Mercosur or the European Union) have also pushed in the direction of adjustment.

Emulation is another mechanism of policy diffusion. Contrary to learning, emulation does not imply a reassessment of causal maps that link policies to outcomes. Thus, emulation does not entail an improved understanding of cause-and-effect relations (May, 1992: 333).

Governments may want to imitate the policies carried out by high status performers or by the majority of countries for a host of different reasons. Credibility and reputation is one. Governments may copy the policies implemented by countries acclaimed as successful in an attempt to attract favorable international opinion. In turn, signals of commitment to "good policies" may be a requisite to have access to scarce external financial resources. Also, governments may simply imitate the policies of their competitors for the fear that economic activity will flow out of the country if they do not follow suit. And finally, policies that are

carried out by a majority of other governments are easier to justify domestically, especially when those policies are unpopular (Ikenberry, 1990; Maxfield, 1997; Bagheri and Habibi, 1998; Simmons and Elkins, 2000).

The third alternative mechanism of policy diffusion is the elusive *power of ideas.* Ideas are certainly powerful when a policy is adopted for the first time[12]. Without any experience to cling to, policy choices are only informed by economists' ideas. Sometimes those ideas are mere hunches and other times they are a fully elaborated body of theory[13]. In any case, ideas are relevant because they show that policies are based on reason. The Swedish discovery of demand stimulation in 1932 and Margaret Thatcher's neoliberal experiment in 1979 are two prominent examples of policy innovation (Przeworski, 1999).

As I have already mentioned, market-oriented reforms were based on a set of ideas dubbed the Washington Consensus. However, there was very little ideational innovation to this blueprint[14]. As a matter of fact, the very proponents of the Consensus announced it as a package of well-established principles of neoclassical economics, whose validity had been broadly endorsed by experience.

John Williamson asserted that (1993: 1331)

> "[t]he hope that we can now develop far more consensus than would have been conceivable or appropriate in the 1950s is based ultimately on the fact that we now know much more about what

[12] Note that this is not the problem I deal with (for a political economy of policy innovations, see Przeworski, 1999). I assume that policies have been around for a while and that there is already some information about their performance. Hence, they no longer constitute an innovation.

[13] For instance, Keynes' *General Theory* was not necessary for countries to engage in deficit spending in the early 1930s.

[14] Przeworski (1999: footnote 6) contends that "while policy switches, all in the neo-liberal direction, have been frequent recently, particularly in Latin America, they did not constitute policy innovations in my sense, since they were based on observing foreign experience or yielding to foreign pressure". This contention, of course, needs to be proved.

> types of economic policy work. At that time, it looked as though socialism was a viable alternative to a market economy; now we know that it is not. At that time, we had not discovered that pushing import substitution beyond the first ("easy") stage was vastly inferior to a policy of outward orientation that allowed nontraditional exports to develop: now we know better"

When a policy is not a genuine innovation, and market-oriented reforms were not, isolating the impact of the neo-liberal ideas on policy choices from the impact of experience becomes involved.

Unfortunately, available discussion on the role of ideas in policy making does not help to elucidate what the power of ideas is. Most works on this topic set out to show that ideas have "power on their own" and most of them conclude that ideas do not have any, at least independently of social and political factors that mediate their adoption and implementation domestically. Different domestic conditions entail a different receptivity to economic ideas, hence producing different policy choices. Thus, extant ideational explanations can address divergence, but not convergence, in policy choices (Weir and Skocpol, 1985; Hall, 1989; Sikkink, 1991; Goldstein and Keohane, 1993; Jacobsen, 1995; Woods, 1995; Yee, 1996; Blyth, 1997; Notermans, 2000).

Given the difficulty in providing a hard and fast test of the impact of neo-liberal ideas on the decision to adopt and remain under market reforms, I approach this issue indirectly.

First, using statistical techniques, I test explicitly the influence of learning, imposition and emulation on policy choices. If learning and the other mechanisms of policy diffusion are not significant to explain the adoption of reforms, and still diffusion occurred, the hypothesis that ideas caused that diffusion will be indirectly supported.

Second, another indirect test of the power of ideas is reflected in the pattern of policy choices overtime. Depending on the mechanism of policy choice at work, I expect the following patterns:

Figure (a) refers to the case in which the introduction of an economic blueprint has intrinsic power. An economic idea is so persuasive as to cause a general, radical and simultaneous switch by all governments coinciding with its appearance. This is the strongest version of the power of ideas, which pictures them as "meteorites that hit the system" (Hood, 1994).

Figure (b) depicts the situation in which more and more governments gradually engage in market-reforms. Under this scenario, the economic blueprint does not have intrinsic power. What gives legitimacy to it is observing one's own experience and the experience of others. Thus, this pattern of policy choices accords to convergence based on learning. The pattern of diffusion caused by imitation or imposition would be roughly similar.

Finally, figure (c) depicts the situation in which the adoption of an economic blueprint is mediated by the local constellation of interests, administrative capacities, policy legacies or the political appeal of ideas as instruments for building coalitions. Due to these intervening variables, only some governments launch market-reforms while others resist. Thus, policy choices do not converge overtime.

So far, I have referred to the potential impact of ideas on policy change. But the role of ideas may have also been significant in explaining the decision to remain under market-reforms.

Intrinsic to the Washington Consensus is the belief that outcomes are inter-temporal and that successful market-reforms entail crossing a "valley of tears". As John Williamson contends "almost all worthwhile progress involves making short-run sacrifices for the sake of greater long-run benefits" (1994: 17). Thus, it is believed that a short-term recession is unavoidable and actually a prerequisite for growth to resume[15]. Intertemporality may have influenced the way in which governments have interpreted the outcomes of market reforms, thus explaining the continuation under these policies even amidst poor economic performance.

[15] Of course, that this is widely believed does not imply that it is true. See footnote (5) for references that criticize this view.

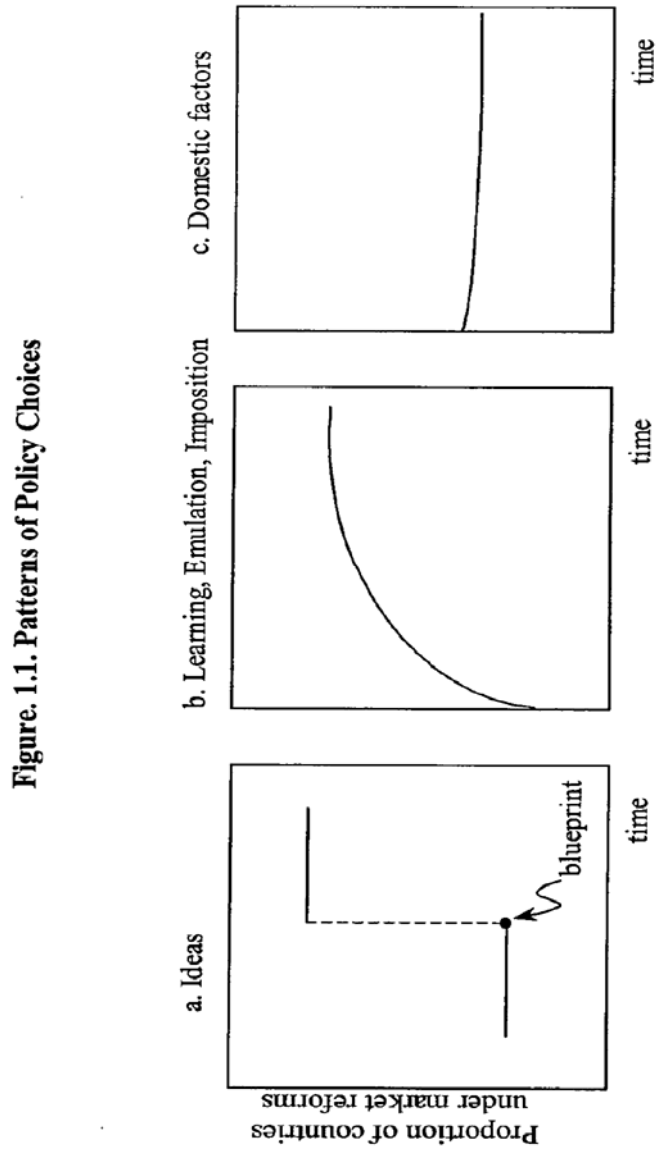

Figure. 1.1. Patterns of Policy Choices

The strategy to address the impact of economic ideas on policy continuity is the same as before. If continuity under market oriented-reforms cannot be explained in terms of the explicit mechanisms of learning, emulation or imposition, economic ideas may have caused that continuity.

Note that this methodological approach can rigorously address what learning, emulation and imposition explain, but it can only give hints about what the neo-liberal blueprint *may* have implied for the decision to switch to and remain under market-reforms. Thus, any conclusion concerning the role of ideas in policy choices should be taken with caution.

1.4. Plan of the Study

Hence, in this study, I address several issues. First and most prominent is whether learning has influenced the decision to switch to and remain under market-oriented reforms. Particularly, I survey whether experience under alternative policies, as mediated by spatial proximity, has influenced those decisions. Second, I explicitly pit the hypothesis of learning against two other alternative hypotheses of convergence: external imposition and emulation. Implicitly, this is an evaluation of the role that the Washington Consensus as intellectual blueprint may have played in the decision to adopt and remain under market-oriented reforms.

In Chapter II, I give a detailed account of Bayesian learning, its features and its potential and weaknesses to model agency's learning process. I also present the dynamic version of the Probit Model, which is the tool I use to test the impact of Bayesian learning on the decisions to switch to and remain under market-oriented policies.

Chapters III to VI are applications of the Bayesian learning model to four market-oriented policies: the decision to grant

independence to Central Banks (CBI)[16], the decision to liberalize the trade regime, the decision to privatize, and the decision to enter into agreements with the IMF. CBI entails removing the control of monetary policy from the hands of governments and ceding that control to an independent monetary authority with anti-inflationary preferences. Trade liberalization entails different measures, mainly, substituting tariffs for quantitative restrictions and reducing the level and dispersion of tariffs. In this study, privatization is confined to selling-out state owned enterprises (SOEs) to private parties. Finally, IMF agreements focus on macroeconomic stabilization - tight fiscal and monetary policies aimed at reducing aggregate demand, generally accompanied by currency devaluation.

CBI, trade liberalization and privatization fall into the category of "structural reforms", that is, they are policies aimed at revamping the institutional framework of a country's development model. IMF agreements, with their emphasis on macroeconomic equilibrium, fall into the category of stabilization policies[17].

The Central Bank illustration comprises 66 developed and developing countries in the period 1952 through 1990. The trade liberalization illustration refers to 51 developing countries in the period 1964-1990. Regarding privatization, I applied the model to 37 industrial and Latin American countries. Finally, the IMF illustration comprises 135 developed and developing countries in the period 1960 through 1990.

All empirical chapters have a similar structure. First, I survey the economic ideas in which each of these policies found inspiration. Second, I briefly review extant explanations for the adoption of these policies and I make a case for an explanation

[16] Note that this measure was not included in the Washington Consensus.

[17] The term "adjustment" is frequently used as an overarching term that embraces both stabilization and structuring. The dichotomy between stabilization and adjustment is not clear. Some adjustment policies are used with stabilization purposes and some stabilization measures induce particular adjustment policies. For instance, governments have used trade liberalization to control inflation via cheap imports. And the stabilization requirement of controlling public deficits has indirectly induced greater privatization.

based on diffusion. Third, I show the results of the learning model, previous discussion of data and performance of these policies.

In all four cases, I assume that governments care about growth results under alternative policies[18] and only in the case of CBI, I assume that governments also care about inflation outcomes. Finally, to account for the influence of proximity, I have structured all available experience under alternative policies at three levels: own experience, experience in the region a country belongs to, and world experience.

Chapter VII is a summary and discussion of the results of the empirical tests of learning. It is also a test of an extended learning model, which includes external imposition and emulation as alternative mechanisms of convergence.

Finally, in Chapter VIII, I discuss the role of ideas in the adoption and continuation under market-oriented reforms. I conclude with an overview of the explanatory power of learning, emulation, imposition and economic ideas in policy choices.

[18] That is, rates of growth having or not an independent central bank, rates of growth having and export oriented or an inward oriented trade regime, rates of growth privatizing or not privatizing and rates of growth being under an IMF agreement or not being under.

CHAPTER II

BAYESIAN LEARNING MODEL

2.1. Introduction

While the theoretical discussion about learning has been prolific, the empirical treatment of the learning hypothesis seems to be confined to an always "to be tackled" research agenda. Given that learning is an elusive concept, this is not surprising.

The first step to test the learning hypothesis is to come up with an operational definition of learning. The second step is to relate learning with the choices actually observed and analyze whether learning has any impact on policy choices.

In this study, I assume that politicians are Bayesian learners:

Policy is chosen under uncertainty. Governments do not know what performance will follow the application of alternative policies. However, they have some prior beliefs about outcomes based on historical experience and/or their ideas. Governments observe their own past experience with policies and the experience of others. In the light of new information, politicians update their beliefs. The combination of prior beliefs and available information produces posterior beliefs. Governments choose policy on the basis of these posteriors, which become priors for the following period. New information is gathered, new posteriors are obtained

and a new choice is made. The updating process proceeds sequentially.

Bayesian learning is an intuitive and appealing mechanism, but it is mathematically involved. In the presentation that follows, I will focus on concepts leaving the more technical details for the Appendixes. However, some notational complexity is unavoidable.

I present the essentials of Bayesian learning in section 2.2. I show its features in section 2.3. The decision problem is spelled out in section 2.4. In section 2.5, I present the complete model relating learning and policy choice and I give a first empirical illustration. I conclude in section 2.6.

2.2. Essentials[1]

Suppose that governments want to learn about the expected rate of GDP/cap growth[2] that would follow the application of two alternative policies, A and B. Governments are uncertain about what outcomes will result from each policy. But they have some prior beliefs about expected results.

The distinctive feature of Bayesian statistics is the operationalization of prior beliefs in a probability distribution[3]. Prior beliefs are especially relevant when decisions are made about "unique" events, that is, events whose repetition under the

[1] This section is based on Berger (1985), Leamer (1991), Gelman et. al. (1995) and West and Harrison (1997), Lee (1997). On Bayesian decision theory, see De Groot (1970), Winkler (1972), Raiffa (1972), Coyle (1972), Gardenfors and Sahlin (1997) and Pericchi (n. d.). Interesting applications to Political Science and Sociology are Western and Jackman (1994), Gerber and Green (1998), Western (1998). See also Meseguer (2001).

[2] There may be, of course, other outcomes of policy politicians would want to learn about, for instance, the rate of unemployment or inflation. The model extends easily to those cases.

[3] This is a major point of departure from classical statistics, which is based on a frequentist approach to probability

same circumstances is unfeasible. This is the case in most political phenomena.

I assume that governments can express their initial uncertainty about the expected results of alternative policies, $j = \{A, B\}$, by means of a probability distribution. Growth, X, is assumed to be a random variable, normally distributed, with an unknown mean, M, and an unknown variance, V. Governments learn about these two unknown parameters, which are random variables themselves.

In their prior specification, the conditional distribution of the mean is normally distributed. The marginal distribution of the variance follows an *Inverse-*χ^2 distribution. In this conjugate prior[4] *Normal/Inv-*χ^2, the distributions of the mean and the variance are interdependent. Thus, for $j = \{A, B\}$

$$\begin{aligned} X_j &\sim N(M_j, V_j) \\ M_j \mid V_j &\sim N(\mu_j, \sigma_j^2 / \tau_j) \\ V_j &\sim Inv-\chi^2(\upsilon_j, \sigma_j^2) \end{aligned} \tag{1}$$

At time t, governments observe the performance of policies A and B. Suppose that n_A countries followed policy A and that n_B countries followed policy B. Hence, the following information becomes available at time t.

$$X_t^j = x_{t,1}^A, x_{t,2}^A, ..., x_{t,nA}^A, x_{t,1}^B, x_{t,2}^B, ..., x_{t,nB}^B; j = \{A, B\} \tag{2}$$

These new data are drawn from normal distributions as in (1). Also, it is assumed that these observations are independent and

[4] Conjugacy entails selecting prior distributions such that the posterior distribution belongs to the same class of prior distributions. Natural conjugate priors arise by taking the class of prior distributions to be the set of all densities having the same functional form as the likelihood (Gelman 1995: 37)

identically distributed (i.i.d.)[5]. The sample means, $\overline{x_j}$, and the sample sum of squares, S_j, are sufficient statistics to summarize available data.

New information combined with prior beliefs yield posterior beliefs, that is, updated beliefs embodying evidence. The useful feature of Bayesian statistics is that it offers a mechanism of rational learning based on Bayes's theorem. The expression below states that beliefs conditional on data – posterior beliefs – are proportional to prior beliefs times the likelihood.

$$p(\theta_j \mid X_j) \propto p(\theta_j)\, p(X_j \mid \theta_j); \theta_j = M_j, V_j; j = \{A, B\} \quad (3)$$

Bayesian learning provides updating equations for the parameters of interest, mean and variance, after observing n_j outcomes of policy.

In words, governments start with some prior beliefs about average growth and variability of growth for policies A and B. Information is gathered and, at the end of the year, governments update their beliefs about A and B using equations (4) – (8). These posteriors become priors the following year. Based on posterior beliefs, policy is chosen. Under the assumption that samples gathered consecutively are independent, rational updating of beliefs proceeds sequentially.

With a *Normal/Inv-*χ^2 prior and a normal likelihood, the posterior value of the mean (4) and the posterior value of the variance (5) have the following shapes. For each country i, time t and $j = \{A, B\}$

$$\mu_{it} = \frac{\tau_{i,t-1}}{\tau_{i,t}} \mu_{i,t-1} + \frac{n}{\tau_{i,t}} \overline{x_{i,t}} = \rho \mu_{i,t-1} + (1-\rho)\overline{x_{i,t}}; 0 < \rho < 1 \quad (4)$$

[5] In the Bayesian jargon, this property is called exchangeability

$$s_{i,t}^2 = \frac{\mathbf{S}_{i,t}}{\upsilon_{i,t}} \tag{5}$$

with

$$\tau_{i,t} = \tau_{i,t-1} + n \tag{6}$$

$$\upsilon_{i,t} = \upsilon_{i,t-1} + n \tag{7}$$

$$\mathbf{S}_{i,t} = S_{i,t-1} + S_{i,t} + \frac{\tau_{i,t-1} n(\overline{x_{i,t}} - \mu_{i,t-1})^2}{\tau_{i,t}} \tag{8}$$

n is the sample size, $S_{i,\,t}$ is the observed sample sum of squares, $\mathbf{S}_{i,t}$ is the posterior sum of squares, $\upsilon_{i,\,t}$ is the posterior for the degrees of freedom, and $\tau_{i,\,t}$ is the posterior for the factor that relates the prior variance of the mean with the sampling variance.

Equation (4) implies that posterior beliefs are a compromise between prior beliefs and sample information. It is important to note that the bigger the sample size, n, the more weight sample information receives in forming posteriors. In turn, if governments have very precise beliefs about the outcomes of policies, that is, if τ is small, the contribution of experience to posterior beliefs will be minor. Also, note that the observed variability of results affects the posterior value of the variance through (5).

It is realistic and conceptually interesting to assume that governments learn from average growth results and from the variability of results. Politicians can infer the impact of a certain policy on the outcomes by looking at the variance. A high variability of results may be interpreted as outcomes driven by underlying conditions and not by policy. Hence, the variability of results is taken as a proxy of the responsibility of a particular policy for observed outcomes

Since this presentation may be too abstract, I illustrate the characteristics of the sequential process of learning in section 2.3.

2.3. Features

I use empirical data to describe how the updating process operates and to point out its potential and limitations to explain policy change. In so doing, I have to slightly touch the issue of choice, which is fully spelled out in sections 2.4 and 2.5.

Figure 2.1 shows the average rates of growth under Export Orientation and under Import Substitution in Latin America in the period 1964 through 1990. These figures do not include Costa Rica, which is the country whose choices I study.

A priori, it is sensible to expect that governments choose the policy that performs better. Had the Costa Rican governments used this criterion of choice, they would have embarked in Export Orientation in 1968, again between 1970 and 1973 and again in the periods 1977-1981, 1984-1985, 1987-1990. These are the spells in which, in Latin America, average rates of growth under Export Orientation were greater than the average rates of growth with Import Substitution. Thus, Costa Rica would have changed its development strategy nine times. According to my data, Costa Rica changed it only twice: it switched to Import Substitution in 1974 and liberalized in 1986.

It is known that policy changes are rare and that policy persistence is more the rule than the exception. Therefore, the comparison of observed rates of growth under alternative policies seems not to be a good characterization of the policy choice process.

Does the comparison of posterior beliefs provide a more realistic portrait?

Figures 2.2 and 2.3 are based on the same data as above. Figure 2.2 shows the *observed* rates of growth under Import Substitution and the *posterior beliefs* about average rates of growth, using the observed path as the source of learning.

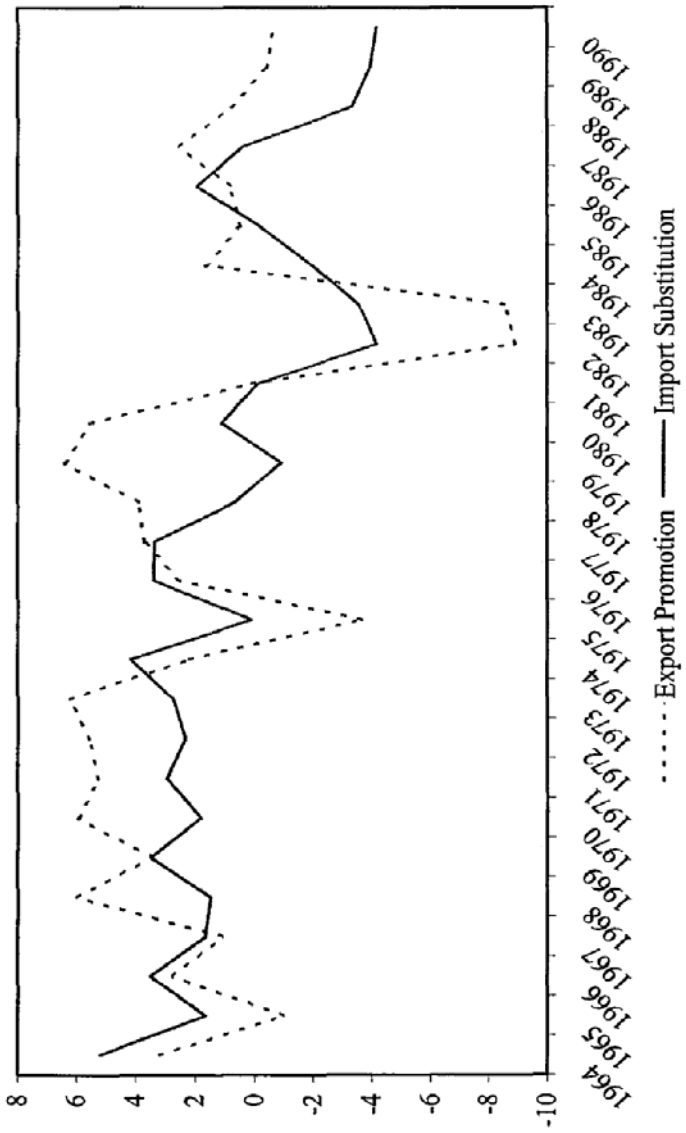

Figure 2.1. Average Regional Rates of Growth in Latin America (1964-1990)

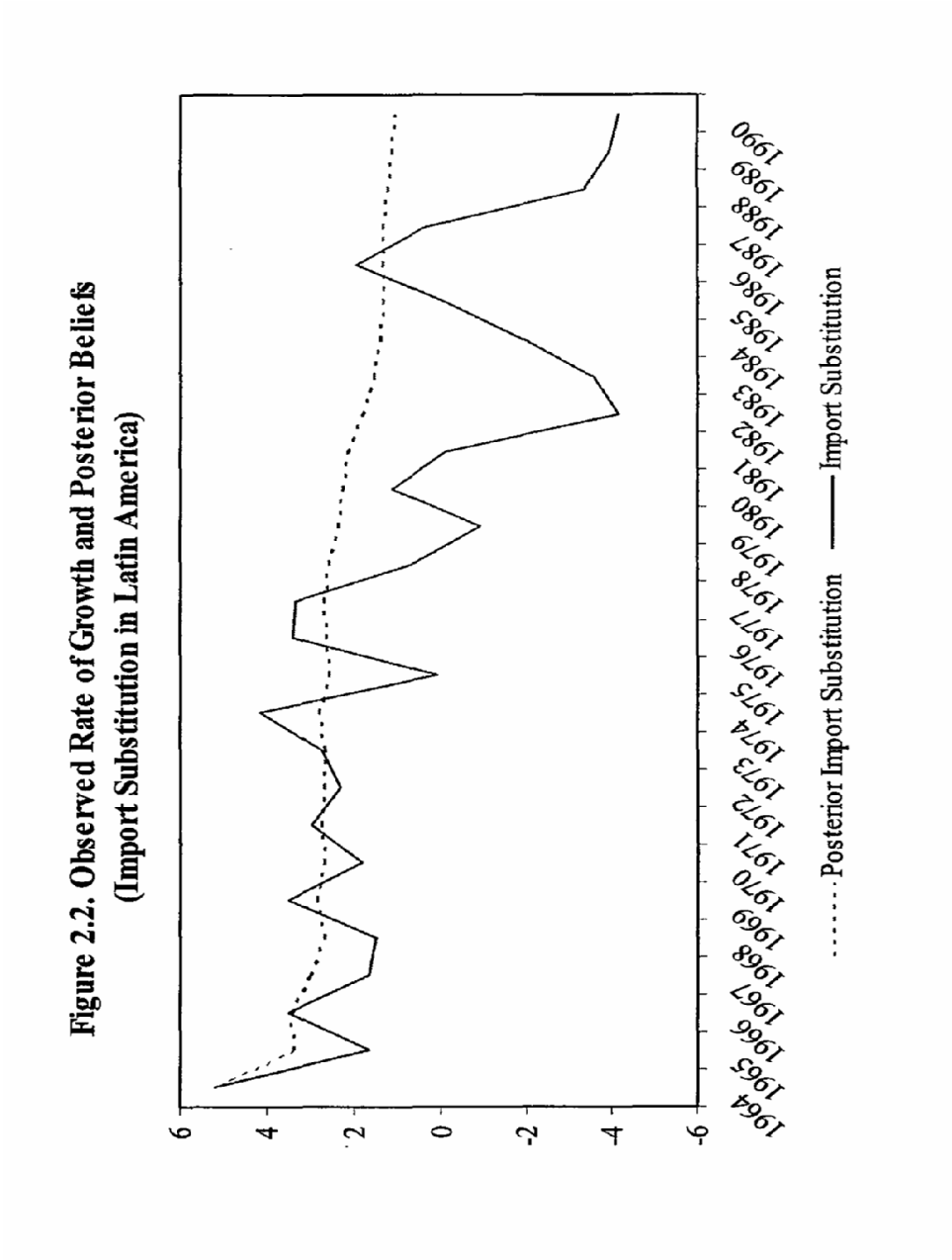

Figure 2.2. Observed Rate of Growth and Posterior Beliefs (Import Substitution in Latin America)

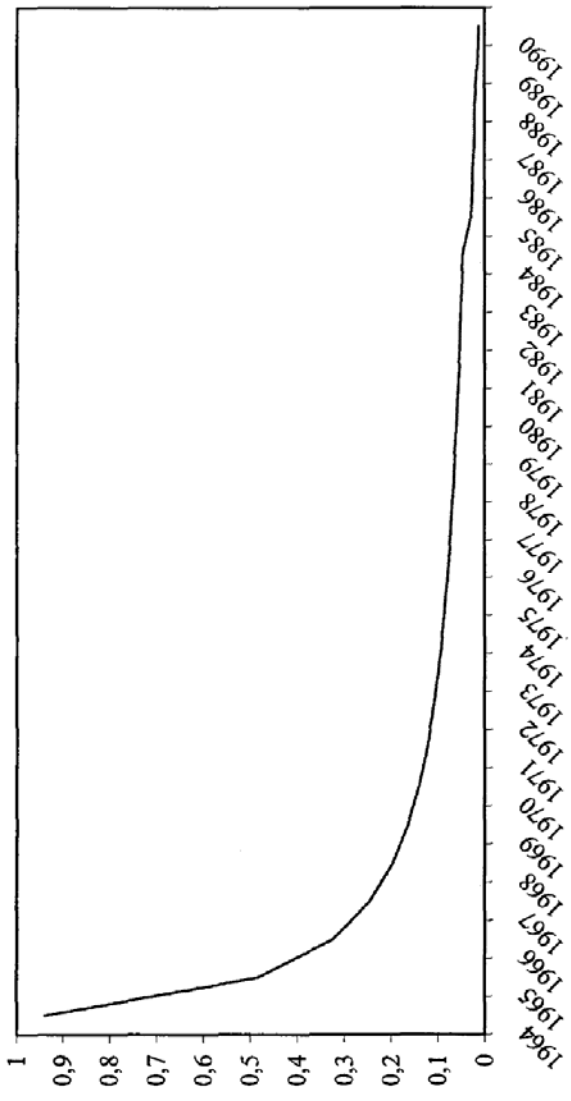

Figure 2.3. Costa Rica: Rate of Adaptation to Regional Information, Import Substitution

As it is possible to see, at the beginning of the updating process, the posterior series matches the observed path of growth quite closely. Later, posterior beliefs become enduring. This results in a posterior series that is much smoother than the original series.

A look at the shape of the rate of adaptation to new data, $(1-\rho)$ in equation (4), helps to understand why this is so.

If initial priors are vague, this rate converges very fast. Such property entails that learning takes place swiftly at the beginning. Later in the updating process, new information has much less impact on posterior beliefs.

This feature poses a legitimate concern: whether such a low receptivity to new information makes Bayesian learning useless to model policy change. As long as policy choice is modeled as a comparative exercise, the answer is no.

For example, figure 2.4 below shows the posterior beliefs about average growth for both Export Promotion and Import Substitution in Latin America.

Under the assumption that Costa Rican governments compare those posterior beliefs and choose the policy whose posterior is larger, a switch to Export Orientation would have occurred in 1970, remaining under that policy thereafter. Thus, despite the endurance Bayesian learning implies, it *can* predict policy changes. Note also that the dynamics involved in Bayesian learning resemble better the kind of behavior one observes in reality: one of continuity, change and continuity again. In short, Bayesian learning rules out surprises (Denzau and North, 1994), but it does not preclude change.

Comparison of figures 2.1 and 2.4 throws light on the conditions under which Bayesian updating would predict a switch.

Since the choice of policy is a comparative exercise, the performance of the two policies matters. It takes the results of both policies to change in the opposite direction for a switch to occur. Later, when the receptivity to new information is lower, changes in the results of the two policies will have to be not only in the opposite direction, but also big in magnitude and sustained in

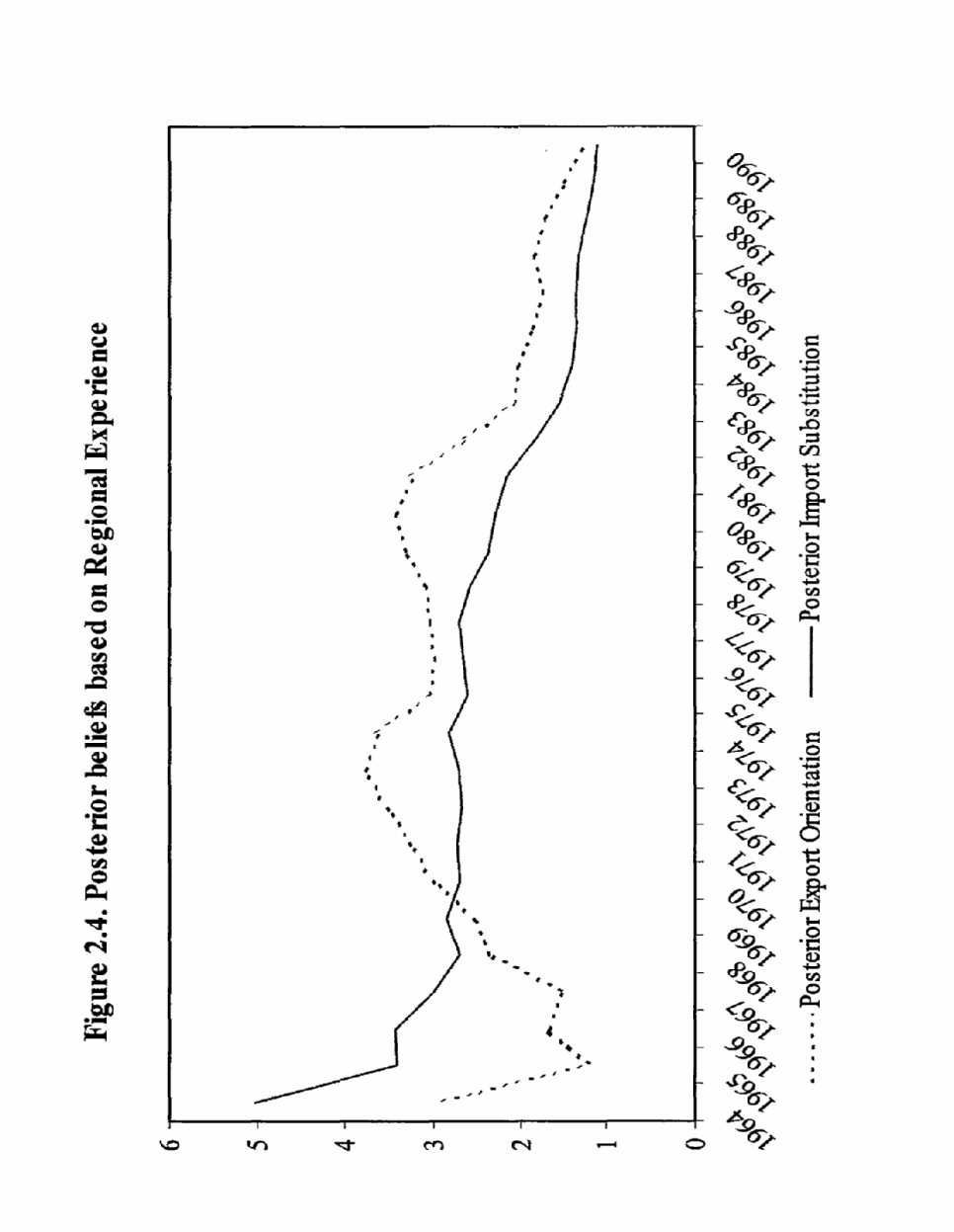

Figure 2.4. Posterior beliefs based on Regional Experience

time. Otherwise, peaks and troughs would be considered "anecdotal".

This feature explains why Bayesian learning does not predict a change in 1982 and 1983, despite a dramatic downturn in average rates of growth under Export Promotion. Not only was this slowdown brief, but results under Import Substitution were also slowing down simultaneously, albeit less dramatically[6].

Also, note that the shape of the rate of adaptation to new data has an important implication with regard to prior beliefs: their influence vanishes rapidly as more information is gathered[7]. This implies that two governments with different prior beliefs confronted with the same information would converge in their posterior beliefs, and hence, in policy choices. This property implies that results will be robust to priors. However, a caveat should be made at this point.

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[6] In some forecasting models, the shape of the rate of adaptation to new data is altered with an "intervention". This allows the incorporation of external information that carries with it a high uncertainty – for instance, an external shock. By changing priors to account for that uncertainty, the rate of adaptation experiences a new peak. Modeling that uncertainty makes the decision-maker automatically more attentive to new data. However, to proceed like this in an explanatory, retrospective model of policy choice would imply an *ad-hoc* exercise that will "force" governments to learn even if they have not.

A compromise between the model I present and the intervention variation could be one that dropped the assumption of *independent* samples gathered over time. Modeling dependence would imply some sort of Bayesian analysis of time series that I do not undertake in this research.

[7] This invalidates the criticism that the updating process will be strongly influenced by the way the researcher models prior beliefs. Priors can be non-informative – flat, diffuse, reference priors – or informative. If priors are non-informative, the likelihood dominates the priors in the formation of posteriors. One may want to choose non-informative priors if the aim is to "let the data speak for themselves". This is relevant in those settings in which gathering new information is costly. Also, it may be the case that there is "insufficient reasons" to model prior beliefs in a particular way. However, informative priors make sense when there is theoretical and empirical material on which prior beliefs ca be substantiated, something that very frequently happens in comparative research.

In the empirical Chapters, I assume that governments update their beliefs on the basis of three sources of experience: own experience, the experience in the region a country belongs to and the experience in the world.

Note that there are two contradictory forces in updating own experience. On the one hand, own experience is based, at best, on a single piece of information. This lowers the rate of adaptation to new data. But on the other hand, own experience is the least noisy source of information. Also, note that equations (4) - (8) imply that the posterior beliefs equal the prior beliefs when experience does not exist.

I illustrate this point with another example.

Figure 2.5 shows the observed rates of growth under IMF agreements in Turkey and the posterior beliefs based on that experience.

The series of growth under IMF agreements shows some interruptions in which Turkey was not under an agreement with the IMF. Note that when this happens, the posterior belief series remains unaltered until new experience is gathered. Hence, between 1972 and 1977 posteriors were equal to the 1971 posterior. The same goes between 1986 and 1990.

Overall, these caveats imply that the influence of prior beliefs is expected to be more persistent in the updating of own experience than in the updating of experiences in the region and in the world.

Finally, after specifying prior beliefs for the distributions of the mean and the variance, prior beliefs for all parameters involved in the updating process can be obtained taking into account the property of conjugacy. Such procedure is explained and illustrated in Appendix A. I.

In sum, the rational learning process predicts that switches will be unlikely but not impossible. Choices tend to endure and it takes sustained, large and opposite changes in the observed results of alternative policies to produce a reversal. This process also implies that, regardless of initial beliefs, governments will eventually converge to the same choices if exposed to the same information.

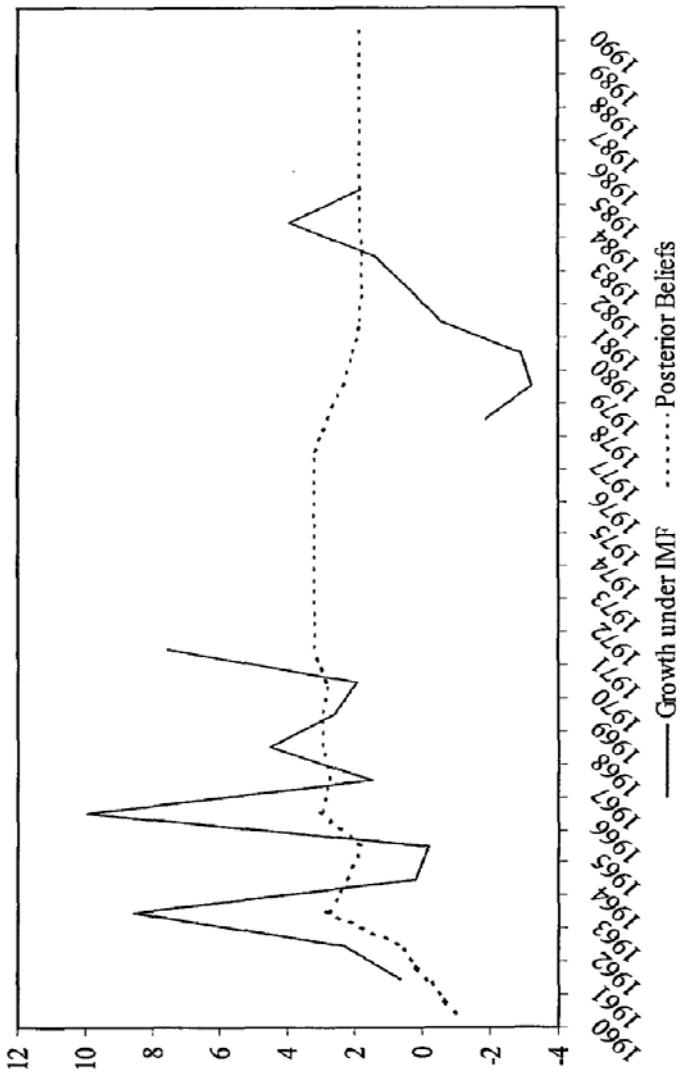

Figure 2.5. Growth under and Posterior Beliefs (Turkey, 1960-1990)

2.4. Choice

Governments are interested in adopting policies that enhance growth. The motives for this interest may vary. Governments may be benevolent. Alternatively, they may be interested in holding on to office and believe that a good performance record increases their chances of reelection. They may have both motives.

Regardless of motivation, governments are portrayed here as actors that "invest" in a policy. In order to choose policy, governments observe the experience with possible alternatives in the past and elsewhere and learn from those experiences. As any risk-averse investor, governments prefer the policy that yields the best outcome with the least variability.

A decision problem can be specified in which, every period, governments maximize the utility from alternative policies.

I assume that utility is a function of posterior beliefs about average results and about variability of results. Again, the variability of results matters because if governments observe a high average rate of growth with very little noise, then that average will convey a great amount of information of the responsibility of the policy in the observed outcome.

Suppose that government i derives utility from growth. For policies, $j = \{A, B\}$, utility has the following shape

$$U_{i,t}^{j}(\mu, s) = \beta_1 \mu_{i,t}^{j} + \beta_2 s_{i,t}^{j} + \varepsilon_{i,t}^{j}; j = \{A, B\} \quad (9)$$

where $\mu_{i,t}$ is the posterior belief about average results, $s_{i,t}$ is the posterior belief about variability of results and $\varepsilon_{i,t}$ is a stochastic component[8]. Thus, utility is a function of the posterior average and the posterior standard deviation, which vary from government to government and over time. The choice is also a function of unobservable components such as reputation, credibility or political will captured by ε_{it}.

[8] It is assumed to be normally distributed and independent over time and among governments.

I assume that utility increases in the average. If decision-makers are risk-averse, utility decreases in the standard deviation. Governments are indifferent between a policy that yields less average growth and less variability of results and a policy that yields greater growth but it is noisier. Also, under the assumption that governments' utility increases with average growth and decreases with noise, governments prefer policies that yield greater growth given a certain noise and they prefer a less noisy policy for the same growth outcome[9].

For the sake of clarity, I assume that choices over time are independent. I drop this assumption in section 2.5.

Government i faces a choice at t between policy A and policy B. Decision-maker i will choose policy A if and only if the utility from option A is greater that the utility from option B.

$$U_{i,t}^{A} \geq U_{i,t}^{B} \tag{10}$$

This implies

$$\beta_1 \mu_{i,t}^{A} + \beta_2 s_{i,t}^{A} + \varepsilon_{i,t}^{A} \geq \beta_1 \mu_{i,t}^{B} + \beta_2 s_{i,t}^{B} + \varepsilon_{i,t}^{B} \tag{11}$$

Rearranging terms

$$\beta_1 (\mu_{i,t}^{A} - \mu_{i,t}^{B}) + \beta_2 (s_{i,t}^{A} - s_{i,t}^{B}) \geq -(\varepsilon_{i,t}^{A} - \varepsilon_{i,t}^{B}) \tag{12}$$

[9] There is an extensive debate about the conditions that are necessary for a Mean-Standard deviation preference function to yield the same ranking of preferences as the expected utility criterion. These conditions are a quadratic utility function and normally distributed alternatives. However, recent research contends that the only requirement is that the alternatives should have distributions that differ in their location and scale parameters. The shape of the utility function in (9) allows a more intuitive interpretation of results than a quadratic utility function. Moreover, models were estimated using the latter specification with minor qualitative changes in the results. On this topic, see for instance Frankfurter and Phillips (1995) and Meyer (1987).

To simplify, let $\mu_{i,t}^{A} - \mu_{i,t}^{B} = \mu_{i,t}$; $s_{i,t}^{A} - s_{i,t}^{B} = s_{i,t}$, $\varepsilon_{i,t}^{A} - \varepsilon_{i,t}^{B} = \varepsilon_{i,t}$

Hence, the probability that policy maker i chooses policy A at t is:

$$P(A_{i,t}) = P(U_{i,t}^{A} \geq U_{i,t}^{B}) = P(\varepsilon_{i,t} \geq -(\beta_1 \mu_{i,t} + \beta_2 s_{i,t})) = 1 - F[-(\beta_1 \mu_{i,t} + \beta_2 s_{i,t})] = F(\beta_1 \mu_{i,t} + \beta_2 s_{i,t}) \quad (13)$$

This set up allows to estimate β_1 and β_2.

The comparison of a politician choosing between policies with an investor choosing among risky assets is intuitive. However, assuming that a politician will show an unequivocal preference for a policy that performs better is only a conjecture. It could be the case that governments are guided by miraculous performances instead of average performance. If that is the case, a high variability of results could be positively related to the probability of a switch. Also, even if a policy performs comparatively worse, it may not be abandoned if it is ideologically preferred, the policy is imposed on politicians or there is some exogenous and/or ideational justification for those poor results.

As a matter of fact, my main task in the next chapters is to obtain empirical information about the parameters β_1 and β_2, hence, to explore whether rational learning matters and, if so, in which way.

2.5. Learning and Dynamic Choice

So far, I have focused on how to obtain a measure of learning from experience and on how this measure of learning may inform policy choices. I have assumed that choices over time are independent. However, policies tend to be highly inertial and policy switches are exceptional. Now, I drop the assumption that

policy choices are independent by specifying the problem as one of learning and dynamic choice.

The ultimate goal of this modeling process is to relate learning from experience with the observed path of choices. Using a Dynamic Probit model, I estimate the probability of transitions between policies as well as the probability of remaining under the same policy.

The Dynamic Probit model is spelled out in Appendix A.II. Here, I just point out that the probability of transitions between as well as the probability of continuing under policies has the same theory behind: learning.

Experience is structured at three levels: own, regional and world experience. The regional experience refers to the outcomes of alternative policies in the region of country i, excluding this country. The world experience refers to the experience in the world.

The reason why I structure available experience at these three levels is to test whether Bayesian learners exert any discrimination of information depending on the proximity to the source of information. I expect own experience to be more significant than the experience in the region. Since similarity in conditions should in principle translate into a lesser variability of outcomes in the region than in the world, I also expect regional experience to be more significant than the experience in the world. Recall, however, that when these experiences are compared, there are two opposing forces. It is true that own experience is the least noisy; but it is also true that the amount of information to update with is more abundant in the region and in the world.

The vector of variables to explain policy choices is

$$\mathbf{Y}_{i,t-1} = CONSTANT, \mu^{O}_{i,t-1}, s^{O}_{i,t-1}, \mu^{R}_{i,t-1}, s^{R}_{i,t-1}, \mu^{W}_{i,t-1}, s^{W}_{i,t-1}$$

with $\mu_{i,t-1}$ and $s_{i,t-1}$ defined as in section 2.4. Also, O stands for own, R for regional and W for world experience.

To account for alternative explanations of policy choice, two other control variables have been added to the baseline models of learning. These variables are the number of other countries in the world engaged in a particular policy a certain year and a dummy variable coded 1 for countries and years under an IMF agreement. The first control variable is a proxy for emulation. The second control variable accounts for external imposition of policies.

Hence, the variables in the control models are

$\mathbf{Y}_{i,t-1}$=*CONSTANT*,$\mu^{O}_{i,t-1}$, $s^{O}_{i,t-1}$,$\mu^{R}_{i,t-1}$, $s^{R}_{i,t-1}$,$\mu^{W}_{i,t-1}$, $s^{W}_{i,t-1}$, *NUMBER, IMF*

Since, again, the presentation above may be too abstract, I show below a first empirical estimation of this model for the four policy choices covered in Chapters III to VI. The policy decisions I survey are the decision to enter into agreements with the IMF, to privatize, to grant independence to the Central Bank (CBI) and to embark in an Export Oriented development strategy[10]. Full details regarding data and other estimation information are given in each empirical Chapter.

In this preliminary model, I assume that governments do not discriminate among sources of information. Updating of beliefs is based on *all* available experience with alternative policies.

Recall the process: first, posterior beliefs about outcomes of each alternative policy are obtained using Bayesian updating. Second, those posterior beliefs are compared. Third, the comparison of posterior beliefs is the theory that drives the decision to switch to or to remain under a particular policy.

The model explains the decision of policy maker i to switch to and remain under policy A, conditional on past policy status[11]

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[10] The alternative policy status are not to be under an IMF agreement, not to privatize, not to grant independence to the CB and to engage in a strategy of Import Substitution.

[11] See Appendix A.II for full details.

$$P(A_{it}|S_{i,t-1}) = F(\beta' \mathbf{Y}_{i,t-1}) + F(\alpha' \mathbf{Y}_{i,t-1}) A_{i,t-1}$$

With $\mathbf{Y}_{i,t-1}$= *CONSTANT,* $\mu_{i,t-1}$, $s_{i,t-1}$

I expect that the greater the difference in posterior beliefs about average results following policy A with respect to policy B, the greater the probability of a switch to policy A.

I also expect that the greater the posterior beliefs about variability of results following policy A with respect to policy B, the less likely a change to policy A.

I show the results of this preliminary estimation in tables 2.1 and 2.2.

According to these results, rational learning is a plausible explanation of the decision to privatize. Both parameters are significant and have the expected signs. However, rational learning cannot explain the decision of governments to sign agreements with the IMF and the decision to grant independence to Central Banks. In the case of development strategies, switching to an Export Oriented strategy is negatively related to the dispersion of results or, in other words, governments are risk averse.

The potential of rational learning to explain the continuity under these policies is minimal. In the case of Central Bank Independence, the only significant coefficient is risk aversion. Continuity in this policy is negatively related to posterior beliefs about variability of results under CB independence and non-independence.

Note that inertia – lagged status – is very powerful to explain policy choices. Lagged status is negatively related to the decision of switching policies and positively related to the decision of remaining under them. This is clear evidence that choices overtime are related.

Chapters III to VI explore whether these patterns hold when experience is structured at three levels. In Chapter VII, I explore whether these results hold when other alternative explanations are considered.

Table 2.1. Probability of Switches to Several Policies

Policy Choice	*Probability of Switching*			
	IMF Agreements	*Privatization*	*CBI*	*Export Orientation*
Constant=	-1.41***	-1.24***	-1.40***	-3.90***
Lagged Policy	(-13.9)	(-6.84)	(-9.23)	(-4.76)
All Experience				
Average Results	0.01	0.55***	0.11	0.23
	(0.19)	(3.51)	(0.69)	(1.27)
Variability of Results	0.02	-0.27*	-0.06	-0.76**
	(0.30)	(-1.82)	(-0.68)	(-1.96)
p-value for F	0.000	0.000	0.000	0.000
Observations	3488	623	2105	1171

t-test in parenthesis

*p<0.1; **p<0.05; ***p<0.01

Table 2.2. Probability of Continuing under Several Policies

	Probability of Remaining		
Policy Choice	*IMF Agreements*	*Privatization*	*CBI*
Lagged Policy	0.77***	1.74***	1.21***
	(4.98)	(4.77)	(7.78)
All Experience			
Average Results	-0.13	-0.30	0.06
	(-1.04)	(-0.81)	(0.47)
Variability of Results	0.11	-0.002	-0.29***
	(1.00)	(-0.006)	(-3.02)
p-value for F	0.000	0.000	0.000
Observations	3488	623	2105

t-test in parenthesis
*p<0.1; **p<0.05; ***p<0.01

2.6. Conclusion

In assessing the impact of learning in the choice of policies, it is necessary to first make the concept of learning operational. I assume that politicians are Bayesian learners. Governments update their initial beliefs about the expected outcomes of alternative policies with all the information available about observed performance.

The choice of policy is viewed as a comparative exercise: governments compare their posterior beliefs about alternative policies and make their choices of policies on the basis of that comparison. Using the appropriate statistical technique, it is possible to assess the impact of learning on the decisions to switch between and to remain under policies.

A first illustration of the procedure as applied to four policy choices has been provided. In this illustration, governments updated their beliefs about outcomes of alternative policies using *all* available information about available performance.

According to these preliminary results, rational learning could only explain the decision to privatize; but it did not have explanatory power to account for the decisions to sign IMF agreements and to grant independence to the CBs. Governments appear risk-averse in their decision to adopt an Export Oriented development strategy.

Rational learning is basically irrelevant to explain why governments decide to remain under a particular policy. In turn, inertia in the choice of policies is pervasive.

The extent to which these results hold when the information is disaggregated to distinguish among own, regional and world experience and when alternative explanations are included in the model is the subject of the following Chapters.

Appendix A.I

Conjugate Families for Samples from a Normal Distribution. Sampling from a Normal Distribution with Unknown mean and Unknown Precision

Based on De Groot (1970), Gelman et. al. (1995), Lee (1997) and Zellner (1997). Proofs available in those texts.

Suppose growth, *X*, is a random variable that follows a normal distribution with an unknown value of the mean, μ, and an unknown value of the variance σ^2. Suppose that their prior joint conjugate distribution is as follows: the conditional distribution of μ given σ^2 is a normal distribution. The marginal distribution of σ^2 is scaled inverse-χ^2. With this specification, the marginal distribution of μ follows a t-Student distribution.

Thus,

$$\mu|\sigma^2 \sim N(\mu_0, \sigma_0^2/\tau_0)$$
$$\sigma^2 \sim Inv\text{-}\chi^2(\nu_0, \sigma_0^2)$$
or
$$(\mu|\sigma^2, \sigma^2) \sim N\text{-}Inv\text{-}\chi^2(\mu_0, \sigma_0^2/\tau_0; \nu_0, \sigma_0^2)$$

The parameters are the location and the scale of μ and the degrees of freedom and scale of σ^2 respectively. Note that this specification implies that μ and σ^2 are dependent in their prior specification. If σ^2 is large, a high variance prior distribution is induced for μ. Prior beliefs about μ are calibrated by the scale of measurement of X and is equivalent to τ_0 prior measurements on this scale (Gelman, et. al, p. 71).

Suppose now that a sample, $x_{n,}$ of n i.i.d observations on growth also normally distributed is gathered.

1. The joint posterior distribution, $p(\mu, \sigma^2 | x_n)$.

The posterior parameters for the location and scale of the mean and the degrees of freedom and scale of the variance are as follows:

$$\mu_{it} = \frac{\tau_{i,t-1}}{\tau_{i,t}}\mu_{i,t-1} + \frac{n}{\tau_{i,t}}\overline{x_{i,t}} = \rho\mu_{i,t-1} + (1-\rho)\overline{x_{i,t}}; 0 < \rho < 1 \quad (1)$$

$$s^2_{i,t} = \frac{\mathbf{S}_{i,t}}{\upsilon_{i,t}} \quad (2)$$

$$\tau_{i,t} = \tau_{i,t-1} + n \quad (3)$$

$$\upsilon_{i,t} = \upsilon_{i,t-1} + n \quad (4)$$

$$\mathbf{S}_{i,t} = S_{i,t-1} + S_{i,t} + \frac{\tau_{i,t-1} n(\overline{x_{i,t}} - \mu_{i,t-1})^2}{\tau_{i,t}} \quad (5)$$

where ν_0 are the prior degrees of freedom, S_0 is the prior sum of squares and $\boldsymbol{S}_t$ is the sample sum of squares.

2. The Marginal Posterior Distribution of σ^2, $p(\sigma^2 | x_n)$

$\sigma^2 | x_n \sim Inv\text{-}\chi^2(\nu_n, \sigma_n^2)$

with ν_n and σ_n^2 as in (4) and (2).

3. The Conditional Posterior Distribution ofμ, $p(\mu | \sigma^2, x_n)$

$\mu | \sigma^2, x_n \sim N(\mu_n, \sigma^2/\tau_n)$

with μ_n, τ_n as in (1) and (3). One normal way to proceed to sample from the joint posterior distribution is to draw σ^2 from its marginal posterior distribution as in (6) and then draw μ from its normal posterior distribution, using the simulated value σ^2.

4. The Marginal Posterior Distribution of μ, $p(\mu|x_n)$

$\mu|x \sim t_{\nu n}(\mu_n, \sigma_n^2/\tau_n)$

with ν_n, μ_n,σ_n^2 and τ_n as in (4), (1), (2) and (3) above.

5. Specifying the prior parameters.

Since σ^2 follows an Inv-χ^2, the following formulas apply.

$$E(\sigma^2) = \frac{S_0}{(\upsilon_0 - 2)} \tag{6}$$

$$Var(\sigma^2) = \frac{2S_0^2}{(\upsilon_0 - 2)^2(\upsilon_0 - 4)} \tag{7}$$

Thus, after specifying values for the mean of the variance and the variance of the variance, prior values for S and ν can be obtained solving those equations. Also, since μ marginally follows a t-Student distribution

$$E(\mu) = \mu_0 \tag{8}$$

$$Var(\mu) = \frac{S_0}{\upsilon_0 \tau_0} \tag{9}$$

From which τ_0 can be obtained after specifying the variance of the mean and having obtained S_0 and ν_0.

Example

Suppose that growth under a certain policy in year t has been observed to be 1.87 with variance 14. I use this information to come up with a prior distribution of the mean and the variance and prior beliefs for all parameters. The mean and variance of the mean distribution equal 1.87 and 14 respectively. The mean and variance of the variance distributions equal 14 and twice this value, 28. Hence,

$E(\mu)=1.87$; $Var(\mu)= 14$
$E(\sigma^2)= 14$; $Var(\sigma^2)= 28$

With this information and using equations (6), (7), (8) and (9), the following priors are obtained:

$\mu_0= 1.87$; $\nu_0=18$, $S_0=224$ and $\tau_0=0.88$

With this prior parameters, the updating process is set in motion.

Appendix A.II

Dynamic Probit Model

When it is considered that the decision taken by country i at time t is related to the decision that same country took at time t-1, the model to be used is a dynamic probit model (discrete state, discrete time model or Markov model. See Amemiya, 1985)

Let $S_{i,t-1}$ denote policy status of country i at time t-1. That status can be "A" if country i chose policy A at time t-1 ($A_{i,t-1}$). Alternatively, it can be "B" if country i chose policy B at time t-1 ($B_{i,t-1}$). $A_{i,t-1}$ is equal to 1 if country i chose A at time t-1 and 0 otherwise. Similarly, $B_{i,t-1}$ has value 1 if country i chose B at time t-1 and 0 otherwise.

The general specification is

$$\begin{bmatrix} p(A_{it} \mid S_{i,t-1}) \\ p(B_{it} \mid S_{1,t-1}) \end{bmatrix} = \begin{bmatrix} p_{AA,it} & p_{BA,it} \\ p_{AB,it} & p_{BB,it} \end{bmatrix} \begin{bmatrix} A_{i,t-1} \\ B_{i,t-1} \end{bmatrix}$$

Where participation status at time t conditional on past status - left hand side - is made equal to a transition probability matrix

times lagged participation status. The transition probability matrix contains the following information: $p_{AA,it}$ denotes the probability that country i chooses policy A at time t while $p_{AB,it}=1-p_{AA,it}$ denotes the probability that country I switches to policy B at t. Similarly, $p_{BA,it}$ denotes de probability that country i switches to policy A at time t. The probability that country i goes chooses to continue B at time t is $p_{BB,it}=1-p_{BA,it}$

Under this setting, the probability of choosing A at time t is the following

$$P(A_{it}|S_{i,t-1}) = p_{AA,it}A_{i,t-1} + p_{BA,it}B_{i,t-1} = p_{BA,it} + (p_{AA,it} - p_{BA,it})\,A_{i,t-1} \quad (1)$$

The same goes for $P(B_{it}|S_{i,t-1})$

In a Univariate Dynamic Probit setting, there is a theory on transitions and on continuities. Transitions and continuities are a function of the same set of lagged regressors. In other words, the same theory is used to explain both phenomena.

$$P_{BA,it} = F(\beta' \mathbf{Y}_{i,t-1}) \quad (2)$$
$$P_{AA,it} = F(\gamma' \mathbf{Y}_{i,t-1}) \quad (3)$$

where F(·) is the CDF of the standard normal distribution.

For convenience, let $\gamma = \alpha+\beta$. Then, even if the explanatory theory is the same, its impact on probabilities differs as reflected in different coefficients.

$$P_{AA,it} = F(\gamma' \mathbf{Y}_{i,t-1}) = F[(\alpha+\beta)' \mathbf{Y}_{i,t-1}] = F(\alpha' \mathbf{Y}_{i,t-1} + \beta' \mathbf{Y}_{i,t-1}) \quad (4)$$

Using (2) and (4) in (1) and rearranging terms

$$P(A_{it}|S_{i,t-1}) = p_{BA,it} + (p_{AA,it} - p_{BA,it})\,A_{i,t-1} = F(\beta' \mathbf{Y}_{i,t-1}) + [F(\alpha' \mathbf{Y}_{i,t-1})]\,A_{i,t-1} \quad (5)$$

Hence

$P(B_{it}|S_{i,t-1}) = 1-[\ p_{BA,it} + (p_{AA,it} - p_{BA,it})\ A_{i,t-1}] = 1-[F(\beta'\ \mathbf{Y}_{i,t-1}) + [F(\alpha'\mathbf{Y}_{i,t-1})]\ A_{i,t-1}]$ (6)

The likelihood function can be formed using equations (5) and (6) above

$$L=\prod_{i,T,N}[F(\beta Y_{i,t-1}+F(\alpha' Y_{i,t-1})A_{i,t-1}]^{A_{i,t}}[1-F(\beta Y_{i,t-1}+F(\alpha' Y_{i,t-1})A_{i,t-1}]^{1-A_{it}}$$

Note that because the influence of the variables determining actors' decisions to remain under is determined by $\gamma = \alpha+\beta$, the relevant z-statistic has the following shape

$$Z = \frac{\alpha+\beta}{\sqrt{\sigma_\alpha^2+\sigma_\beta^2+2\,\mathrm{cov}(\alpha,\beta)}}$$

CHAPTER III

LEARNING AND CENTRAL BANK INDEPENDENCE

3.1. Introduction

This chapter explores to which extent governments have granted independence to central banks as a result of learning.

The consequences of having an independent central bank are the object of a vast empirical research. This is not the case with the causes of central bank independence (CBI), a topic recently added to the research agenda. Most works have focused on the domestic political and economic reasons that induce governments to delegate the control of monetary policy. The international forces behind this decision have been exceptionally considered (Maxfield, 1997). Yet, the decision to grant independence to CBs may have been driven by factors beyond national borders. The globalization of capital and the process of European integration are two such international drives. An alternative explanation for the recent CBI wave is learning from others. Exemplar inflation performance at no output cost in countries with a long tradition of CBI might have induced other governments to adopt the same institution.

The chapter proceeds as follows. In section 3.2, I present briefly the theoretical rationale to advocate an independent central

bank. In section 3.3, I discuss both the causes and consequences of CBI. In section 3.4, I present the Bayesian model of learning applied to the decision to grant independence to central banks. I conclude in section 3.5.

The main result of this chapter is that learning from growth and inflation performance of countries with an independent central bank has not guided the decision to grant independence elsewhere. Taking into account that there is little evidence of convergence in policy during the period under scrutiny (1952-1990), this result is not surprising. Also, the virtues attached to CBI seem to have been confined only to inflation performance and only to industrial countries.

3.2. Why an independent central bank?

Advocacy of an independent central bank found its theoretical ground in the works of Kydland and Prescott (1977), Barro and Gordon (1983), Rogoff (1985) and Alesina (1989). This policy idea got empirical support from the good performance of the German Federal reserve, well known for its inflation averse policy. More recently, the experience of the New Zealand central bank has been interpreted as new evidence of the causal link between CBI and low inflation.

The main argument in defense of an independent central bank is the so-called *time inconsistency of monetary policy.* Governments have an incentive to cheat on their long-run inflation announcements to exploit the trade-off between inflation and output in the short-run. Assuming that the public forms their expectations rationally, it anticipates government's incentive to cheat. Government's announced policy is not credible. The public adjusts its behavior to what it expects the government future behavior will be. This combination of a deceitful government and a rational public has a sub-optimal outcome: greater inflation and no output change. Hence, time inconsistency appears when the optimal government policy before implementation is no longer the

best after being implemented. Public anticipation of a change in government policy causes this mismatch.

Delegating the control of monetary policy on an independent central bank could solve the time inconsistency problem by making explicit rules to guide public expectation formation. Also, an independent third party could increase the credibility of government commitment to low inflation by making deviations to a low inflation path more costly.

These claims are not free from criticisms. It has been argued that the benefits from an independent central bank are subject to certain conditions that do not hold invariably: a forward looking expectation formation process and a private sector aware of the policy maker incentive to lie.

Other criticisms focus on the disregard in which fiscal issues or the complex relations between policy makers and wage bargainers have fallen when advocating an independent central bank. Also, there is no evidence of the existence of a credibility problem, an issue that remains elusive in theory and data. Overall, it seems that the popularity gained by the idea of CBI in the political arena has been reached at the cost of some simplification of theory. Quoting Forder (1998: 327), "this is not to say that there are no regimes approximately fitting those described by theory – much less that the theory is never used to justify them; but it is to say that theory has not tended to offer readily applicable models, and there can at present be no presumption that anti-inflationary commitments, having perhaps been too weak, are not becoming too strong".

In developing countries, the *fiscal dominance hypothesis* is another reason to remove the control of monetary policy from the hands of politicians. When the fiscal situation dominates other areas of macroeconomic policy, governments are likely to resort and use the central bank to neutralize changes in government credit requirements with inflationary consequences.

Inflation causes important welfare losses. The well-known association between high inflation and greater variability of inflation creates uncertainty, conflicts with the good functioning of

the price mechanism and ultimately damages growth. All in all, low inflation seems to be a desirable target. The crucial issue is to what extent CBI is the route to attaining it. Empirical research supports that legal CBI has been useful only in OECD countries. Research also shows that CBI and growth are unrelated.

CBI is far from being a costless device. An independent monetary authority may hinder growth if coordination with fiscal policy fails. The costs of CBI are not only economic. Concerns about the democratic accountability of independent central banks have been put forward against this device. An independent central bank weakens voters' ability to influence the policy making process. The question, then, is how to prevent central banks from pursuing an anti-inflationary policy that may be far from the preferences of the electorate or sub-optimal from a social welfare point of view.

In sum, theoretical grounds to advocate CBI are controversial. Policy prescriptions are inspired by the literature but not fully loyal to its complexities. In the next section, I show that CBI has had the expected positive effects only to some extent. All in all, CBI has economic and political costs. The question then emerges as to why politicians decide to grant independence to their central banks. This issue is also reviewed next.

3.3. Causes and Consequences of CBI

In this section, I survey the causes and consequences of central bank independence. I focus, first, on the economic consequences of CBI. The review shows that CBI has had a positive impact on inflation control in OECD countries. In non-OECD countries, results are sensitive to the measure of CBI used. Research also shows that CBI and growth are unrelated in both industrial and developing countries. These findings make politicians' decision to forego the control of monetary policy look puzzling. If improved economic performance is not the reason, there may be other

factors of political nature driving the decision to grant independence to central banks. I explore those factors here.

3.3.1. The Consequences of CBI

CBI is meant to be useful in keeping inflation under control. Low and stable inflation is the most obvious goal of CBI, but it is not the only one. Ultimately, price stability is considered a requisite for sustained growth. According to Alan Greenspan (cited in Maxfield, 1997: 13) "the independence of central banks is an element in keeping inflation down, and just as importantly, the lower the rate of inflation, the higher the growth rate of productivity".

The consequences of CBI have been widely researched. There is a considerable amount of empirical studies using all kind of model specifications, different proxies for CBI and different samples as well as time periods. This diversity makes comparability of results somewhat difficult. However, two conclusions seem to be persistent amidst this proliferation: (i) there is a negative relationship between CBI and inflation in industrialized countries and (ii) CBI and growth are unrelated.

Eijffinger and de Haan (1995) and Berger et. al. (2000) provide an impressive review of the empirical literature about the consequences of CBI. I have extracted Tables 3.1 and 3.2 from those papers. Table 3.1 refers to models with both developed and less developed countries (LDCs). Table 3.2 gives information about LDCs only.

In view of these tables, drawing clear conclusions about CBI and economic performance beyond industrial countries is fairly complicated. Results are highly sensitive to the measure of CBI used, whether legal or informal, and to the control variables[1]

[1] Frequent ones are the degree of openness, the natural rate of unemployment, the government budget deficit, indicators of political stability and political liberty and several characteristics of the labor market (union density, bargaining process).

added to the models. This sensitivity is more evident when tests refer to LDCs only.

There are quite a few other caveats regarding the robustness of the effects of CBI on economic performance. I only mention a few. For instance, de Haan and Kooi (2000) have shown that behavioral CBI and inflation are related only when they include hyperinflation cases in their tests. Results are also sensitive to the period under scrutiny, with the relation between CBI and inflation being much less straightforward during the period of fixed exchange rates. Finally, there seems to be a two-way causality relationship between inflation and CBI casting doubt on the exogenous character of the latter. Intervening unobservable variables, such as the culture and tradition of monetary stability in a country call for caution when making easy extrapolations about the expected consequences of CBI.

The fact that CBI seems to have had a positive impact on inflation at no output cost has led to believe that CBI is a "free-lunch". This positive reading obviously changes if the emphasis is on growth and employment. CBI seems to be useless to promote them. Another discouraging result is that having an independent central bank does not imply less disinflation costs (Eijfinger and de Haan, 1995). This means that the recession caused by an attempt to curb inflation is not smaller the more independent the central bank is.

This poses an obvious question: why do governments cede control of monetary policy to an independent agency instead of exploiting its use with economic – hence political – consequences?

3.3.2. The Causes of CBI

I discuss the political reasons that induce governments to cede discretion over monetary policy. The bulk of the stories that explain why governments grant independence to central banks emphasize *domestic* political reasons. For instance, governments

Table 3.1. Summary of evidence (developed and developing countries)

Study	*Index Used*	*Countries*	*Estimation Period*	*Conclusions*
Cukierman (1992)	LVAW, TOR and QVAW	70 countries	1950-1989 and subperiods	INFLATION: LVAW significant for OECD countries but not for LDCs; TOR is significant in LDCs
Cukierman, Webb and Neyapti (1992b)	LVAW, TOR and QVAW	72 countries	1950-1989 and sub-periods	INFLATION: LVAW is significant for OECD countries, but not for LDCs; TOR is significant in LDCs
Cukierman et. al. (1993)	LVAW, TOR	Around 50 countries	1960-1989	GROWTH: no relationship if legal index is used, but significant relationship if TOR is employed.
Cukierman and Webb (1994)	VUL	64 countries	1950-1989	INFLATION: political vulnerability of central bank has significant impact on inflation. GROWTH: VUL significantly hurts growth
Posen (1995)	LVAU	32 countries	1950-1989	CBI does not affect inflation if measure of Effective Financial Opposition towards Inflation (FOI) is included
Froyen and Waud (1995)	AL, LVAU, Cukierman's inflation based index	16 OECD countries and 34 countries	1955-1989	Greater CBI is associated with an improvement in the terms of the output-inflation tradeoff for industrialised countries, while no such relationship is found for a sample of less developed countries.
Campillo and Miron (1997)	LVAW	62 countries	1973-1994	CBI does not affect inflation in contrast to openness, political instability and the debt-to-GDP ratio
Fuhrer (1997)	LVAU; Alesina-Summers	70 countries	1950-1989	CBI does generally not affect inflation and once control variables are included the significance of the Alesina-Summer index vanishes; CBI is related to lower levels of growth and higher unemployment rate.
Akhand (1998)	LVAW, TOR	62 countries	1960-1989	Fragile relationship between all measures of CBI and economic growth.

Source: Eijffinger and de Haan (1995) and De Haan et. al. (2000)

Table. 3.2 . Summary of Evidence (LDCs only)

Study	*Index Used*	*Countries*	*Estimation Period*	*Conclusions*
De Haan and Siermann (1995)	TOR	43 LDCs	1950-1989	TOR has significant positive impact on inflation
Sikken and de Haan (1998)	LVAW, TOR, VUL	30 LDCs	1950-1994	TOR and VUL (but not LVAW) are significantly related to central bank credit to government; CBI is not related to budget deficits
Fry (1998)	Own Measure baesed on whether CB neutralises government credit requirements; LVAU; TOR	70 LDCs	1972-1995	Measures of CBI do not provide information about how independent CB actually behaves; the estimated policy reaction functions show that higher deficits and greater reliance on the inflation tax and financial repression are associated with less neutralisation.
De Haan and Kooi (1999)	TOR	97 LDCs	Cross-section	CBI is robustly related to inflation but not to economic growth.
Sturm and de Haan (1999)	Ibid	Ibid	Ibid	Effect of CBI disappears if high-inflation observations are excluded, but legal indicator for CBI becomes significant if outliers are excluded. This conclusion holds if various controls are included.

Source: Eijffinger and de Haan (1995) and De Haan et. al. (2000)

delegate authority in central banks to avoid bearing the political costs of an unpopular monetary policy. Another explanation is that legislators want a third party with expertise to monitor the monetary policy of politicians they mistrust. Still another story argues that central bank independence will be granted when a party losing office wants to prevent the incoming party from changing monetary policy. Finally, central bank independence may also be an instrument to signal creditworthiness and attract investment.

Being more specific, political explanations have emphasized (i) the role played by particular sectoral interests (ii) the impact of party systems and other political institutions (iii) the influence of leadership and ideology and (iv) the financial needs of governments. Empirical research is not always conclusive regarding the effect of these variables. The relevance of domestic political factors varies in OECD and non-OECD countries. This is not surprising taking into account that regimes and party systems are not fully institutionalized in LDCs.

(i) Central bank independence aims at keeping inflation down. This implies that CBI is more likely to exist the greater the political strength of sectoral groups with anti-inflationary preferences. Hence, the more the political strength of the financial sector – as opposed to labor-intensive industry – the more likely to observe central bank independence (Posen, 1993; Clark, 1994).

Sectoral groups do not operate in a vacuum. Eventually, their influence depends on the extent to which political authority is vulnerable to their pressures. This in turn is a function of particular characteristics of the political system that act as mediating variables. According to Posen, low party fractionalization in a federalist system enhances the influence of the financial sector by increasing national government commitment to issues. However, Clark obtains the opposite relationship. Insulation of government decision-making is negatively correlated to central bank independence. The expected relationships between sectoral groups and CBI are also mediated by the existence of corporatist institutions. According to Hall

(1995), corporatist arrangements can make strong labor and industry compatible with CBI and low inflation.

(ii) Alternative political explanations of CBI focus on the role of politicians' time horizons and perceived security in office, the degree of party fragmentation and polarization and other procedural features of the political process.

It is becoming a well-established contention that greater political competition enhances CBI, at least in OECD countries. But this story has some nuances related to other variables mentioned above.

There is an extended agreement in that the longer the time horizons of politicians in office, the more they will value economic policy flexibility, which implies less CBI (Goodman, 1991). This result holds for industrial countries. In developing countries, politicians prefer policy flexibility the shorter their time horizons and the more insecure their position in office. In this context, politicians have used flexibility as vote-buying mechanism.

CBI is positively related to the number of veto gates in the legislative process. Basically, the greater the number of procedural obstacles, the more difficult it will be to undermine central bank independence. The effect of this factor is illustrated by the German Bundesbank experience, where a federalist system yields divided party control and a large number of veto gates.

Results are not so clear-cut when it comes to analyzing the impact of parties' policy preferences on CBI. The distinction here is whether parties have or not similar policy preferences and whether the party in power sees its position in office – hence its preferences over monetary policy – secured or not.

It has been argued that, when parties have similar policy preferences, legislators will try to control government monetary policy by promoting an independent institution capable of monitoring government policy (Bernhard, 1998). When parties have different policy preferences, CBI is likely to be used as an instrument to avoid the choice of an unwanted monetary policy. The clearest example is one of a right-wing party with a strong

preference for low inflation facing bad reelection prospects (Zielinski, 1995).

(iii) Another explanation for varying degrees of CBI relies on leadership and ideology. The issue, being elusive, is not unimportant. After all, a legally independent central bank does not say much about the conservativeness – actual degree of inflation aversion – of the central bank. Yet, this is obviously a crucial factor in understanding CBI and its effect on economic performance. Two equally independent central banks from a legal point of view can execute policies that differ in their anti-inflationary stance depending on the preferences of key individuals within the institution.

(iv) All the explanations mentioned so far refer to *domestic* social and institutional features. There is a clear gap in the literature. The international factors that may have pushed governments to grant independence to central banks have been overall disregarded.

Notable exceptions to the dearth of works stressing international factors are Maxfield (1997) and Pastor and Maxfield (1999). These authors incorporate into the analysis a new element, namely, the conditions imposed by the globalization of capital markets. In this context, they argue, governments use CBI to signal creditworthiness to potential investors.

Maxfield (1997) develops a political economy of CBI with a focus on middle-income developing countries. In her explanation, the greater governments' financial needs are, the more likely governments are to use CBI to signal creditworthiness. Also, this signaling is more likely to occur when the restrictions on international financial transactions are low. This is because low restrictions translate into a greater international competition for resources. Signaling is positively related to the security of politicians' tenure in office. If politicians' position in power is not secure, granting CBI implies to forego a flexibility that can buy votes in the short-run. Finally, politicians will use CBI the greater the expected effectiveness of signaling through it. This, in turn, is a function of perceived characteristics of financial markets, such

as the balance between supply and demand of resources and of the predominant forms of international financial intermediation.

Another unexplored explanation for the decision to grant independence to central banks is learning from others. The argument would be that better inflation performance at no output cost in industrial countries with independent central banks could have induced other countries to adopt the same device. Of course, this mechanism works as long as observed outcomes are attributed to CBI.

The empirical test of the hypothesis of learning is the object of next section.

3.4. Learning Model

I analyze whether learning from others has been influential in governments' decision to grant independence to central banks. I first discuss my indicator of CBI, inspired by but different from those available in the literature. I then present the data and, finally, I provide the results.

According to my measure of CBI, there was a clear reduction in central bank independence during the years of hyperinflation. Only in the last years of the 1980s, CBI increased. Overall, the trend has been one of little changes. This fact helps to understand the main finding of this section: learning from inflation and growth performance of others does not explain governments' decision to grant independence to central banks.

3.4.1. Measuring CBI

Measures of CBI are the object of a heated debate. The question at stake is whether available indexes of CBI reflect the degree of independence of central banks at all.

Proxies for CBI can be grouped in formal (legal) and informal (behavioral) indicators of independence. Legal measures of CBI

are the rule, especially when research is confined to OECD countries. These indicators code and aggregate particular legal aspects of CBI as reflected in Central Banks' statutes[2]. The problem with this proxy of CBI is its little value when non-OECD countries are included in the analysis. In the most comprehensive study of CBI to date (Cukierman et. al., 1992), the authors found that countries like Argentina, Peru or Nicaragua had hyperinflation and rankings of legal independence above the median. Moreover, the existence of informal practices in particular developing countries suggested the need to complement legal measures with behavioral indicators of CBI. For instance, in Argentina, the legal term of the central bank governor in office was four years. However, the central bank governor resigns whenever there is a change of government.

Cukierman et. al.'s research made popular the so-called Turnover Rate of Central Bank Governors (TOR). This indicator presumes that rapid turnover damages CBI by discouraging central bank governors to adopt long-term policies. Interestingly, these authors found that CBI and inflation are negatively related in non-OECD countries only when this behavioral measure was used.

The Vulnerability index is yet another informal indicator of CBI created by the same authors. This index quantifies the probability that a central bank governor will be replaced shortly after a political change of government. The greater this probability, the less independent the central bank will be.

These indexes, whether legal or informal, have important measurement and conceptual problems. Some authors consider these problems so serious as to state that the stipulated relationships based on empirical research are simply invalid (Forder, 1998.). For instance, the comparison of the legal indexes by Cukierman et. al. and Grilli et. al. shows agreement in coding only for one country (out of seventeen in common) and for one

[2] Criteria refer to appointment, dismissal and term of office of the governor, policy formulation, objectives of the central bank and limitations on the ability of the central bank to lend to the public sector.

criterion (out of nine)[3]. Standard indexes also fail to reflect the degree of conservativeness of the central bank.

I do not consider these criticisms unimportant. Yet my stance here is pragmatic.

Testing the hypothesis of learning demands an annual and dichotomous[4] measure of independence. It also demands observing transitions between the status of CBI and non-CBI. None of the indexes most frequently used provides such an indicator. Indexes are not only continuous but they are also given for aggregate periods of time.

I have constructed my indicator using Cukierman and Webb's data on political transitions[5] and on Central Bank Governors' appointments. I have used some of their findings, namely, that a new governor appointment is more likely to happen within six months following a political transition[6] and that short tenure in office discourages independent monetary policy.

I have matched Cukierman and Webb's data on political transitions and on central bank governor appointments for sixty-six developed and developing countries between 1952 and 1990. These countries have been grouped in seven regions[7]. I have coded as independent those governors that survive in office for at least six months after a political transition. The list of countries,

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[3] The Italian governor's term in office.

[4] Cukierman and Lippi (1999) dichotomized the (unweighted) Legal index (LVAU) using 0.4 as cutoff point. Legal indexes above or equal 0.4 correspond to high CBI while values below 0.4 correspond to low CBI. As for the TOR, Cukierman et. al. (op. cit.) dichotomize the TOR in low/high turnover ranges using the cutoff of 0.25 turnovers a year or an average tenure of four years.

[5] The political transitions they consider are (1) transitions from authoritarian to democratic regime, (2) transition from democratic to authoritarian regime, (3) a coup against one authoritarian government, leading to another, (4) a change of party without a regime change, (5) a change of the head of government to someone of the same party.

[6] I the sample is split in developed and developing countries, this threshold is one month for the former and six months for the latter. It is six months in the overall sample.

[7] Latin America, Eastern Europe, Africa, East Asia, South Asia, Middle East and OECD.

years of entry and exit in the database and spells under an independent central bank are given in Appendix A. II[8].

A strict application of this criterion proved to be sensible in general although it is not free from caveats. There were cases in which a governor did survive a political transition but her term in office was very short and/or was removed immediately after the next political transition. For instance, a political change took place in Argentina in May 1973 and a governor was appointed that same month. This governor survived a political transition in September 1973 but was removed from office in October 1974 after another political change in July 1974. Hence, the governor appointed in May 1973 did survive a political transition but his tenure in office was very short. Moreover, he was removed from office immediately after the next political transition. I have coded such governors as dependent.

The reverse of the situation happens in particular cases in which governors had long terms but they did not survive at least one political transition. This happens in most authoritarian regimes but also in some democracies. A strict application of the survival rule would codify these governors as non-independent. This is not so problematic for authoritarian regimes. However, some extra judgement was required in particular cases. According to Cukierman and Webb's data, a new central bank governor was appointed in March 1982 in Belgium and a new one was appointed in July 1989. The 1982 governor did not survive any political transition; yet his term in office lasted for more than seven years. Actually, I found out that the 1982 governor simply reached his age of retirement. When possible, I have gathered the necessary information to proceed to a correct coding of these cases, which were exceptional[9].

According to my behavioral index of CBI, 1492 country-year observations (68% of the total) correspond to independent central banks. More than half of these observations are OECD countries.

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[8] A Codebook is available from the author.

[9] The same happened in Austria (Feb 1973- Feb 1978) and New Zealand (Feb 1977- Feb 1982)

The remaining 679 country-year observations are dependent central banks[10].

Figure 3.1 shows the proportion of countries with an independent central bank. According to this figure, there has not been an increase in CBI during the period under study. The trend has been overall one of divergent choices.

The beginning of the period shows a high proportion of countries with independent central banks. This is because industrial countries populate my observations during the first years and CBI is the rule in that cluster. The progressive incorporation of countries outside the OECD region lowers the trend. Interestingly, the most obvious reductions in CBI coincide with the periods of high inflation. It seems that governments have reacted to escalating inflation by choosing flexibility instead of tying their hands. This trend was somewhat reversed in the last years of the 1980s.

I have used Bruno and Easterly, 1996 (in Drazen, 2000) criterion to characterize bad inflation as an increase in the consumer price index of 40% or more during at least two consecutive years. According to this criterion and my data, inflationary crisis and non-independent central banks have gone persistently hand in hand. This fact is obvious in Latin America[11]. Such observation could be interpreted as evidence that non-independent central banks at least correlate with high inflation. A different reading is that, despite its stipulated potential to bring inflation down, persistent inflation does not seem to induce CBI.

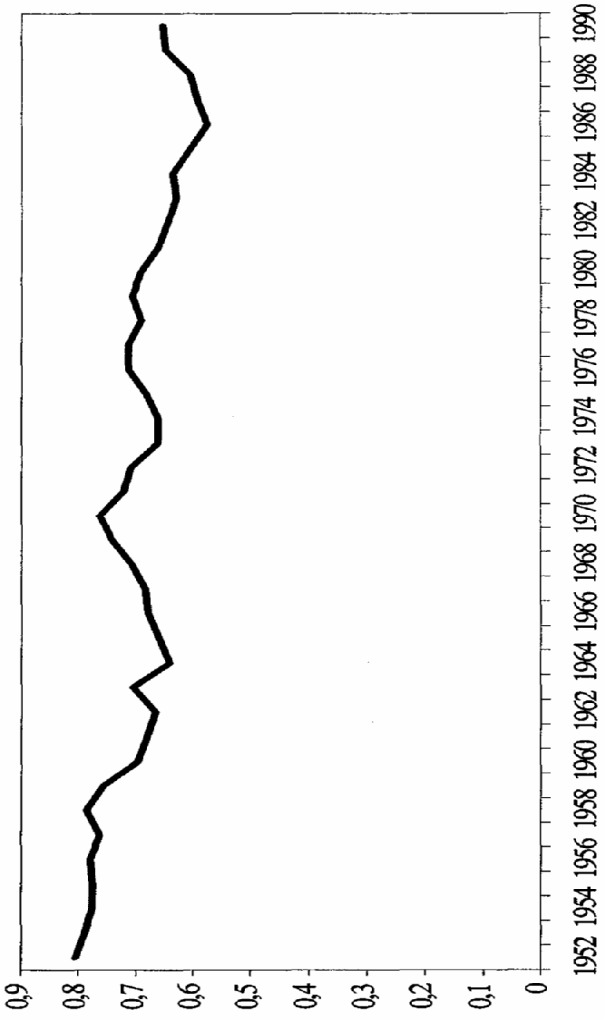
Other CBI indicators also show that policy did not converge before the 1990s. For instance, only Chile, Turkey, United Kingdom, Zaire and Venezuela experienced increases in legal independence so as to make them jump from a non-CBI to a CBI status[12]. Alternative measures of independence show that CBI decreased in the 1970s and changed little in the 1980s. In some

[10] Data based on the Growth Model.

[11] Mexico is the exception. Israel, Iceland and Yugoslavia have also persistent high inflation and independent central banks.

[12] See footnote 4.

Figure 3.1. Proportion of countries with Independent Central Banks (1952-1990)



developing countries, this occurred amidst four-digit inflation figures.

My analysis does not include the 1990s. That decade witnessed a dramatic increase in the number of countries granting *legal* independence to central banks. This trend was remarkable in Latin America, Western and Eastern Europe. It has been moderate elsewhere. However, *behavioral* convergence in CBI during the 1990s is a topic yet to be researched.

3.4.2. Some Figures

The learning model tests whether governments have granted independence to central banks as a result of learning from the performance of others. I assume that governments observe the growth[13] and inflation[14] outcomes under alternative policies (CBI and non-CBI), update their beliefs with that information and choose the policy that is expected to yield the greatest growth and the lowest inflation.

Up to this point, I have argued that there is no empirical evidence supporting the existence of a relationship between CBI and growth.

This fact seems to hold in my data. A simple description shows that in the overall sample, countries with an independent central bank grew only slightly more than countries without it (2.85 vs. 2.74). Countries with an independent central bank grew faster in Latin America and the Middle East. They grew slower in Eastern Europe, Africa, South Asia, East Asia and the OECD region. In any case, growth figures do not reveal consistent differences in growth that could be attributed to having an independent central bank.

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[13] Taken from the ACLP Political and Economic Database, 1997. Growth is the annual rate of growth of Real GDP per capita, 1985 international prices, chain index.

[14] Taken from the ACLP Political and Economic Database, 1997. Consumer price index, changes. Annual changes in the consumer price index.

Another contention I have made so far is that the negative relationship between CBI and inflation appears to be more solid. Evidence is quite conclusive in developed countries. When informal indicators of CBI are used, such relationship also holds in developing countries.

According to my data, average inflation was clearly lower in countries with an independent central bank (12.1% vs. 65.3%). Not only average inflation but also its variability was much lower in the presence of an independent monetary authority (sd 39.1 vs. sd 391.4).

At the regional level, this global pattern has its peculiarities. For instance, the difference in average inflation between the status of CBI and non-CBI is dramatic in Latin America. In this region, average inflation in countries with an independent central bank was 15.01%. It was 153.35% in countries and years with a non-independent central bank. Argentina, Brazil, Peru and Uruguay are countries that persistently had inflation rates over the cut-off point but did not grant informal independence to their CBs.

On the contrary, central bank independence seems to have made very little difference in OECD countries. The few country-year observations in which central banks were not independent show average inflation figures (8.36%) that are only slightly greater than those of countries with independent central banks (7.72%).

Between these extremes of an apparent strong negative relationship (Latin America) and no relationship at all (OECD), there is a considerable variation. Actually, average inflation was greater with independent central banks in the Middle East, Eastern Europe and South Asia.

In sum, this simple descriptive exercise is attuned with the empirical results discussed so far. Overall, CBI and growth are unrelated and CBI and inflation are negatively related. When data is disaggregated at the regional level, this picture shows some nuances. Relationships become much more elusive.

The statistical test of learning confirms what this exploratory exercise anticipates, namely, that learning from others does not explain the decision to grant independence to central banks.

3.4.3. Results

In Chapter II, I explained the procedure to test the impact of learning on policy choice. I present a brief reminder: Governments start with some prior beliefs about the expected growth and inflation outcomes attached to each policy status (CBI and non-CBI)[15]. Every year, new information is available. Politicians observe their own performance and the performance of others under alternative policies. Policy makers update their beliefs with this new information. Under the assumption that policy choice is a comparative exercise, politicians choose the status that yields the expected best outcome according to their posterior beliefs. The updating process proceeds sequentially.

The empirical test consists, first, in generating posterior beliefs about outcomes of alternative policies. Second, posterior beliefs are compared. Third, I relate the difference in posterior beliefs to the observed path of choices as reflected in my measure of CBI.

I assume that politicians update their beliefs about outcomes and about the variability of outcomes. For instance, governments observe average rates of growth but also the variability of growth figures under alternative status. Variability is relevant because it informs politicians of the responsibility of policy on outcomes[16].

I have structured the experience with which politicians update their beliefs at three levels: a country's own experience under alternative status, the experience in the region a country belongs to and, finally, the experience in the world.

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[15] Prior beliefs are given in Appendix A. 1.

[16] A caveat should be made regarding the inflation model. There is a well-known relationship between inflation and variability of inflation. This could cause collinearity problems in a model in which both averages and dispersion are included as independent variables. However, this was not the case.

I expect that the greater the growth under the status of CBI in comparison to the status of non-CBI the greater the probability of granting independence. Regarding inflation outcomes and CBI choice, the expectation is that the greater the inflation under the CBI status in comparison with the non-CBI status, the less probable a switch to independence.

I also expect politicians to be risk averse. Hence, greater variability of results under CBI makes switches less likely.

The dynamic probit models I provide below give information about both the probability of granting independence to central banks and the probability of remaining under the status of CBI.

Regarding growth, learning from own experience and from the experience of others under alternative policy status is hardly explanatory of the decision to grant independence to central banks. The little impact of learning is totally consistent with the lack of systematic relationship between CBI and growth according to theory, empirical research and my own data.

In the growth model, none of the average experiences turned out to be significant to explain the switch to CBI. Governments appear to have been risk averse regarding their own experience, both in their decisions to grant independence and to remain having an independent central bank. They seem to have been risk prone in the view of the experience in the rest of the world.

As for inflation, I obtained similar results. Average inflation seems not to have had any impact on the decision to grant independence to central banks. However, it seems that govern ments abandon CBI if, based on own past experience, inflation performance under that status is worse than without a non-independent central bank. In other words, the greater the inflation under CBI with respect to non-CBI, the less likely governments are to remain granting independence.

All in all, there is very little evidence that governments have opted for an independent monetary authority as the upshot of a learning process. And even if variability of results seems to have had some impact, it pales in comparison to the strong effect of inertia in the choice of this policy.

Table 3.3. Dynamic Probit Model. Growth Model

Determinants of Granting CBI			*Determinant of Remaining under CBI*		
Dependent V=CBI	Coefficient	t-test	Coefficient	t-test	Mean
Lagged Status	-1.27	-10.22***	1.31	10.20***	
Own Experience					
Average Results	-0.01	-0.51	0.01	0.72	-0.84
Variability of Results	-0.09	-2.04**	-0.08	-2.80***	-2.56
Regional Experience					
Average Results	0.0001	0.003	0.03	0.78	-0.46
Variability of Results	-0.09	-1.59	-0.004	-0.08	-1.89
World Experience					
Average Results	0.08	0.65	0.16	1.40	0.21
Variability of Results	0.28	2.91***	-0.09	-1.07	-1.41
p-value for F					0.000
Obs.					2105

*significant at 10%; **significant at 5%; ***significant at 1%

	Predicted		
Actual	*0*	*1*	*Total*
0	590	68	658
1	64	1383	1447
Total	654	1451	*2105*

Table 3.4. Dynamic Probit Model. Inflation Model

	Determinants of Granting CBI		*Determinants of Remaining CBI*		
Dependent V=CBI	Coefficient	t-test	Coefficient	t-test	Mean
Lagged Status	-1. 49	-9.41***	1.69	12.35***	
Own Experience					
Average Results	0.004	1.09	-0.014	-2.41**	-9.14
Variability of Results	0.008	2.01**	0.002	0.65	-20.4
Regional Experience					
Average Results	-0.002	-1.47	0.8e-03	0.28	-11.2
Variability of Results	0.4e-03	0.11	0.8e-03	0.31	-22.9
World Experience					
Average Results	-0.8e-03	-.100	0.9e-03	0.11	-15.7
Variability of Results	-0.008	-2.89***	0.6e-03	0.25	-44.5
p-value for F					0.000
Obs					1951

*significant at 10%; **significant at 5%; ***significant at 1%

	Predicted		
Actual	*0*	*1*	*Total*
0	538	65	603
1	58	1290	1348
Total	596	1355	*1951*

3.5. Conclusions

According to The Economist, "the intellectual case for independent central banks is more or less won" (cited in Maxfield, 1997: 50). The recent wave of statutory changes in central bank legislation all over the world seems to support the quotation. The subsequent question is why this popularity.

CBI could have gained prominence due to its success in keeping inflation down and promoting growth and employment. However, empirical research shows that CBI does not promote growth although it seems to be a useful device to control inflation. The case for CBI is not clear at a theoretical level. Empirically, there are important nuances that call for caution when making easy extrapolations. All in all, it is not obvious that governments grant independence to CBI only due to its expected economic benefits.

Governments have political motives to grant independence to CBs. Several studies show that the adoption of CBI has been mediated by a specific constellation of local interests and particular institutional arrangements. However, these factors alone cannot explain why governments have massively granted legal independence to their Central Banks in the 1990s. As Sylvia Maxfield has shown, international factors related to greater competition for international resources are better equipped to explain this trend. However, domestic political variables seem to be good candidates to explain the pattern of non-convergence in the period 1952 through 1990.

According to the results of the empirical tests, learning did not play a role as mechanism of policy choice. Before the 1990s, governments' preference is not related to diffusion effects based on learning. However, this result may change with the inclusion of the 1990s in the analysis. After all, CBI is a relatively recent policy idea and legal convergence has happened as a massive phenomenon only in the last decade. It remains to be seen whether policy has converged not only in paper but also in practice.

Appendix A. I

Based on the average rate of growth and the variability of results in the world the year before entering the database

Table 3.5. Prior Parameters for the Growth Model

	Central Bank Independence			*Central Bank Dependence*		
Year	*Mean*	*Degrees*	*Sum of Sq*	*Mean*	*Degrees*	*Sum of Sq*
1952	2,72	20	288	5,36	63	3599
1953	1,58	26	528	1,63	31	783
1954	4,37	21	323	0,38	33	899
1956	3,76	22	360	5,14	10	48
1957	2,41	13	99	1,95	15	143
1959	0,67	14	120	1,9	19	255
1960	3,57	11	63	0,24	28	624
1961	4,28	27	575	3,89	19	255
1962	4	27	575	3,94	18	224
1964	4,2	15	143	2,78	24	440
1966	2,85	19	255	3,81	27	575
1967	2,39	25	483	3,58	15	143
1968	2,35	12	80	1,3	36	1088
1970	4,34	11	63	7,21	61	3363
1971	5,11	32	840	6,63	44	1680
1972	4,31	29	675	5,97	102	9800
1975	2,74	17	195	4,54	32	840
1978	3,69	42	1520	2,95	22	360
1984	0,58	24	440	-0,44	45	1763

Table 3.6. Prior Parameters for the Inflation Model

Year	CBI		Non-CBI	
	Mean	*SD*	*Mean*	*SD*
1952	11.6	4.8	16.4	16.8
1953	4.6	6.2	10.6	19.2
1954	2.4	6.6	1.7	1.99
1955	6.2	14.9	2.1	5.4
1956	5.7	14.9	4.1	4.1
1957	5.9	10.6	7.3	5.8
1958	4.8	5.5	8.8	9.4
1959	5.0	5.5	12.2	11.1
1960	2.1	3.2	28.4	37.9
1961	2.3	2.0	8.3	10.4
1962	3.5	5.9	5.1	4.6
1964	4.4	5.7	26.0	43.4
1965	5.8	7.2	20.4	33.3
1966	4.4	4.6	33.7	74.7
1967	5.3	4.3	78.0	272.9
1968	4.2	6.2	18.5	30.4
1970	4.8	4.6	9.4	8.4
1971	5.9	4.4	10.7	7.9
1972	6.2	4.6	45.2	9.6
1973	6.7	3.3	17.3	25.8
1975	18.8	13.4	45.2	108.5
1978	13.8	10.3	25.1	49.2
1981	23.5	27.2	24.7	22.5
1984	21.5	57.7	43.5	675.8

Appendix A. II

Table 3.7. Entrance, exit and spells of CBI in the Growth and Inflation Models

Region	*Growth Model*		*Inflation Model*			
	Year Beginning	*Year Ending*	*Year Beginning*	*Year Ending*	*Spells with an Independent CB Governor*	
Africa						
Botswana	1975	1989	1975	1989	Never Independent	
Ethiopia	1959	1986	1966	1986	1976	1977
Ghana	1957	1990	1965	1990	1965	1972
					1978	1982
Kenya	1966	1990	1966	1990	1966	1981
Nigeria	1960	1990	1960	1990	1963	1966
					1975	1990
South Africa	1952	1990	1952	1990	1952	1979
					1981	1990
Tanzania	1966	1988	1966	1988	1974	1988
Uganda	1966	1990	1981	1990	1966	1970
					1979	1985
Zaire	1964	1989	1964	1989	1964	1969
South Asia						
India	1952	1990	1952	1990	1962	1966
					1977	1990
Pakistan	1953	1990	1957	1990	1954	1959
					1967	1970
					1975	1985
						1990
East Asia						
Nepal	1961	1986	1965	1986	1961	1986
China	1978	1987	1978	1987	1978	1981
Korea	1954	1990	1967	1990	1978	1979
Taiwan	1952	1990			1952	1983
Indonesia	1961	1990	1961	1990	Never Independent	
Malaysia	1959	1990	1959	1990	1959	1984
Philippines	1952	1990	1952	1990	1952	1967

Region	*Growth Model*		*Inflation Model*			
	Year Beginning	*Year Ending*	*Year Beginning*	*Year Ending*	*Spells with an Independent CB Governor*	
					1970	1980
					1984	1990
Singapore	1970	1990	1970	1990	1989	1990
Thailand	1952	1990	1964	1990	1955	1990
W. Samoa	1984	1988	1984	1988	1984	1988
Middle East/ North Africa						
Egypt	1952	1990	1952	1990	1952	1954
					1967	1970
					1976	1981
Morocco	1959	1988	1959	1988	1959	1966
					1969	1988
Israel	1954	1990	1954	1990	1954	1990
Latin America						
Costa Rica	1952	1990	1952	1990	1952	1959
					1965	1967
					1984	1990
Honduras	1952	1990	1952	1990	1952	1978
					1982	1989
Mexico	1952	1990	1952	1990	1952	1975
					1982	1990
Panama	1964	1989	1964	1989	1968	1986
					1988	1989
Argentina	1952	1990	1953	1990		
Brazil	1952	1990	1958	1990	1961	1962
					1968	1973
					1980	1982
Chile	1953	1990	1953	1990	1953	1958
					1989	1990
Colombia	1952	1990	1952	1990	1952	1977
					1985	1990
Peru	1952	1990	1952	1990	1952	1963
					1974	1981
Uruguay	1967	1990	1967	1990	1974	1981
Venezuela	1952	1990	1952	1990	1952	

Region	*Growth Model*		*Inflation Model*			
	Year Beginning	*Year Ending*	*Year Beginning*	*Year Ending*	*Spells with an Independent CB Governor*	
					1958	1975
Bahamas	1978	1987	1978	1987		1987
Jamaica	1962	1990	1962	1990	1962	1963
					1967	1980
					1989	1990
Barbados	1972	1989	1972	1989	1972	1989
Eastern Europe/Soviet Union						
Hungary	1971	1990	1973	1990	1971	1989
Poland	1971	1988	1971	1988	1971	1984
Romania	1961	1987	1971	1987	1961	1976
Yugoslavia	1961	1989	1961	1989	1977	1989
Industrial Countries						
Turkey	1952	1990	1954	1990	1960	1961
					1963	1983
					1987	1990
Canada	1952	1990	1952	1990	1952	1990
USA	1952	1989	1952	1989	1952	1977
					1979	1989
Japan	1952	1990	1957	1990	1952	1954
					1956	1963
					1970	1990
Austria	1952	1989	1956	1989	1952	1987
Belgium	1952	1990	1952	1990	1952	1990
Denmark	1952	1990	1955	1990	1952	1979
					1982	1990
Finland	1952	1990	1955	1990	1952	1981
					1983	1990
France	1952	1990	1952	1990	1952	1959
					1969	1973
					1979	1983
					1987	1990
Germany	1952	1990	1952	1990	1952	1976
					1980	1990
Greece	1952	1990	1952	1990	1952	1972

Region	*Growth Model*		*Inflation Model*			
	Year Beginning	*Year Ending*	*Year Beginning*	*Year Ending*	*Spells with an Independent CB Governor*	
					1974	1980
					1984	1990
Iceland	1952	1990	1952	1990	1952	1990
Ireland	1952	1990	1960	1990	1952	1990
Italy	1952	1990	1960	1990	1952	1990
Malta	1968	1989	1968	1989	1968	1971
					1982	1986
Netherlands	1952	1990	1954	1990	1952	1990
Norway	1952	1990	1952	1990	1952	1990
Portugal	1952	1990	1956	1990	1966	1973
					1975	1984
Spain	1952	1990	1952	1990	1970	1983
Sweden	1952	1990	1952	1990	1955	1972
					1976	1978
					1982	1990
Switzerland	1952	1990	1952	1990	1952	1990
United Kingdom	1952	1990	1952	1990	1952	1990
Australia	1952	1990	1952	1990	1952	1990
New Zealand	1952	1990	1952	1990	1952	1961
					1967	1981
					1984	1990

CHAPTER IV

LEARNING AND DEVELOPMENT STRATEGIES

4.1. Introduction

In this chapter, I explore whether governments' have adopted an Export Oriented development strategy (EO) as a result of learning.

During the last two decades, there has emerged a growing consensus about the failure of the Import Substitution strategy (IS) to promote growth. Bad economic performance in countries pursuing IS contrasted with outstanding growth figures in the East Asian New Industrialized Countries (NICs). In turn, the good performance of the East Asian NICs was associated with the adoption of a radically different strategy based on export promotion. Failure of IS coupled with the success of EO triggered a process of learning in theory and practice. As a result, policy converged in the 1980s and 1990s.

The story is obviously sketchy. Yet, it is an accurate summary of a well-established argument: governments have adopted EO because they have learned from experience. I test this argument here.

The debate around development strategies has had profound normative implications. Initially, the success of EO over IS was

interpreted as a success of markets over the state. Policy recommendations of less state involvement in development became the rule. However, a closer look at country stories and other empirical research shows that reality is far more complicated. State withdrawal and EO are not equivalent. Replicability does not guarantee success. In fact, results under the same strategy showed enormous variation across regions.

The main result of this chapter is that governments have been clearly risk- averse when switching to EO. In other words, high variability of results played against EO. However, governments learned from outstanding performers. In Latin America, governments learned from the experiences of Chile and the East Asian NICs. Proximity of miracles is relevant. Those same experiences did not have any influence on African governments.

In section 4.2, I review the concept of development strategies with a focus on controversial issues. In section 4.3, I briefly discuss the explanations for the choice of strategies. I show the model of learning in section 4.4. Finally, I present some conclusions in section 4.5.

4.2. Development Strategies[1]

Development strategies are a central issue in development and international economics. The topic has generated an impressive amount of research and debate. Yet, many of the issues at stake are still controversial.

Since the literature on the topic is broad, I do not delve into details[2]. I briefly present the main characteristics of each alternative strategy. I focus, then, on those points where consensus is far from obvious.

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[1] Unless otherwise mentioned, sections 4.2 and 4.3 are based on Haggard (1990) and the contributions in Gereffi and Wyman (1990).

[2] See, for instance, Krueger (1978), Balassa (1980), Krueger (1983), Krueger (1984), Krueger (1985), Bhagwati (1985), Balassa (1988), Meier (1990), Krueger (1990).

Development strategies are packages of policies aimed at allocating resources among domestic industries and social groups. They also shape countries' relations to the global economy.

An EO development strategy consists in trade and industrial policies that do not discriminate between purchases of domestic goods and foreign goods. On the contrary, an IS strategy favors production for the domestic over the export market. Exporting is discouraged by the increasing cost of domestic inputs relative to the price received by exporters. This may happen due to domestic inflation or through an appreciation of the exchange rate following the imposition of barriers to imports.

It is common to distinguish between a primary and a secondary IS and a primary and secondary EO. Primary IS entails the local production of basic manufactures such as clothing, textiles and footwear. In secondary IS, local production substitutes for capital and technology intensive manufactures. Primary EO involves the export of labor intensive manufactures. Secondary EO implies the production of higher value-added items that are skill-intensive.

I summarize the main characteristics and instruments of each strategy in table 4.1.

IS has been identified with the strategy pursued by Latin American NICs during the 1950s and 1960s. It was inspired by the writings of the Economic Commission for Latin America (ECLA). Two arguments justified this strategy. First, infant industries needed to be protected, at least temporarily. Second, Latin American countries' could not generate foreign exchange out of their specialization in the export of primary commodities subject to declining terms of trade.

Following this path, countries like Brazil and Mexico achieved phenomenal rates of growth prior to 1960s. After that, chronic balance of payments crisis, increasing public deficits, rampant inflation and rent-seeking practices led to believe that IS had outlived its initial purposes.

This perception was accentuated by the experience of the East Asian Tigers. Singapore, Hong Kong, South Korea and Taiwan

Table 4.1. Features and Policy Instruments of Development Strategies

Export Promotion	*Import Substitution*
*Ready access to imports of intermediate and capital goods. Provision of similar incentives to production for domestic and for export markets.	*Strict and time consuming licensing procedures for imports of manufactured goods.
*Incentives to exports provided uniformly and automatically	*Protection is not uniform or automatic
* Realistic Exchange Rates	* Overvalued exchange rates
*Normally avoidance of quantitative restrictions and use of low tariffs (if used). Exporters have access to the international market at international prices for their inputs.	*Imports are prohibited, there are quantitative restrictions or high tariffs that make imports uneconomic. Exporters do not have a free choice between domestic and imported inputs.
*Temporal protection of infant industries	*Permanent protection of infant industries
* Positive Real Interest Rates	*Low and even negative Real Interest Rates
*Realistic pricing of public utilities	*Underpriced public utilities

Based on Krueger and Jones (1985), Krueger (1983), Krueger (1985) and Balassa (1980)

grew at impressive rates while Latin America stagnated. The success of the former was attributed to the adoption of a strategy of export promotion, in turn inspired by the Japanese experience. In policy circles, success was interpreted as clear evidence of the virtues of the market as opposed to daunting state failures. EO promoted growth, even during periods of crisis. Moreover, growth and equity seemed not to be incompatible. As a result of these contrasting experiences, or better, of the interpretation of them, EO became the accepted orthodoxy.

It is undeniable that the East Asian countries performed remarkably well. But it is controversial to what extent this performance can be attributed to an export-led policy only.

Country stories show that EO was adopted amidst a particular constellation of historical, social and political factors. However, advocates of EO have frequently disregarded these factors. The idea that success could be replicated by adopting the same policy gained popularity.

A closer look at countries' experiences reveals that the East Asian miracle has been simplified along the following lines:

(i) The contention that East Asian countries were following a strategy seems not to be accurate. They did not follow a purposive course of action or a clear blueprint. On the contrary, stories show that improvisation and response to short term dilemmas has been the rule. The idea of development strategy has more sense "the second time around", that is, only after policy makers have extracted some principles from an otherwise tentative approach to policy making. Development strategies are not ready-to-use recipes for growth. They were frequently inconsistent and emerged only by default.

(ii) It is also a simplification to equal Latin America with IS and East Asia with EO. Cross-region and within region research shows that both strategies were pursued in the two regions and that the same strategy had local variations. Development strategies are better described as a succession of phases in which elements of EO were borrowed by IS and vice versa.

Latin America and East Asia embraced the easy phase of IS. Only when it exhausted, choices diverged. Nonetheless, East Asian countries "flirted" with secondary IS before engaging in a primary EO strategy. During the 1970s, they adopted secondary IS (heavy and chemical industrialization). The South Korean case illustrates this overlap: import liberalization was never an important part of its export-led strategy. In the same period, Latin American countries combined secondary IS with a diversified EO path.

A closer scrutiny at countries' experiences shows the existence of national patterns of EO and IS. For instance, in South Korea, export led growth was based on the promotion of big private conglomerates (*chaebols*). In contrast, industrial policy in Taiwan

promoted small and medium sized family owned firms. The comparison of the authoritarian "big push" in Korea with the Taiwanese gradualist approach or with Hong Kong's *laissez-faire* shows, again, those paths differed within the same strategy.

(iii) The *ex-post* reading of the East Asian success as being primarily the result of the withdrawal of the state is profoundly misleading. This interpretation hides the fact that there are different types of state in terms of size, strength and autonomy as well as different forms of state intervention.

There are a good number of studies showing that it is impossible to understand the success of East Asian countries ignoring the role played by the state. The experience of South Korea with selective intervention and infant industry promotion shows that reducing the bias of the regime may require active state involvement (Wade, 1990; Westphal, 1990; Evans, 1992; Rodrick, 1996). It is true that the Latin American experience showed that state failures could be disastrous; but the East Asian experience does not reveal that markets only are enough to succeed[3]. Paradoxically, it seems that the state is the problem and, at the same time, its solution. However, policy recommendations of neutral development regimes have come along with broader recommendations of state dismantling.

(iv) The appeal of EO derives, first, from its good results.

However, research regarding the impact of liberal trade regimes[4] on growth provides mixed results. The problems are not only methodological but also theoretical. The links between trade and productivity are ambiguous. The arguments of the success of EO based on economies of scale and export efficiency are plausible in theory but not supported empirically. Arguments based on savings and innovation are not compelling enough to

[3] An interesting debate on the roles of the private and public sectors in economic development can be found in the Proceedings of the World Bank Annual Conference on Development Economics, 1990.

[4] Equating EO with trade liberalization is inaccurate. However, an open trade regime is an essential element, if not the hallmark, of an EO model of development.

show that export promotion is necessarily better *per se* than import substitution. If theoretical claims are not clear and empirical research in developing countries is mixed[5], it may well be the case that the East Asian success is idiosyncratic and contingent on particular conditions. Yet, this is a fact that empirical research has disregarded.

(v) The second reason why EO is appealing rests on the belief that the East Asian experience could be replicated if only the same policies are adopted. One wonders, however, whether the phenomenal rates of growth of Mexico under IS could have been improved had it followed an EO strategy. This issue, which would imply to address the question of counterfactuals in a rigorous way, has not been researched yet. However, there is a strong rationale to believe that the host of intervening historical, social, political and cultural factors makes policies difficult to export *in toto*.

In sum, there is one story that considers development strategies as deliberate, different and unambiguous in both their outcomes and the reasons for those outcomes. An alternative account holds that development strategies are very little strategic, overlap with each other, yielded mixed outcomes and that those outcomes cannot be attributed only to policy.

Under the first account, EO can be replicated. Its adoption somewhere else would produce the same good performance. Hence, non-adoption of EO policies can only be explained in terms of political stupidity or simple irrationality (Bates, cited in Haggard, 1990: 16).

Under the second account, imitation is problematic. Policies are not adopted in a vacuum. There are multiple factors influencing the effect of policies on outcomes. Hence, success is not a matter of copying. Policy choice is not reduced to political

[5] Performance under alternative trade regimes has also been the object of a voluminous research. Summaries can be found in Edwards (1989) and Levine and Renelt (1991a and 1991b). A recent critical contribution is Harrison and Revenga (1995). On Latin America and Africa, see Nogues and Gulati (1994) and Shafaeddin (1995) respectively.

will or lack thereof. On the contrary, choices are the result of very particular conjunctures and factors.

I briefly review those conjunctures and factors next.

4.3. Explaining Development Strategies

Case studies have provided a considerable amount of hypothesis concerning policy choice. Detailed stories show that choices have sometimes been deliberate but other times, they have been improvised answers to short-run problems.

Stylized accounts of development strategies distinguish three levels of analysis: (i) the international system, (ii) social, political and institutional features of the domestic polity and finally (iii) other variables harder to pin down like values, ideas, culture or beliefs. Another distinction focuses on the impact of static vs. dynamic factors. Among the former, size and resource endowments are the most relevant. Latin America had natural resources and big internal markets. East Asia had small markets, few natural resources, and cheap and educated labor. Hence, the choices of IS and EO respectively. The story gets complicated with the consideration of dynamic factors, which include the social and political features mentioned above.

(i) At the international level, shocks and economic crisis are frequently cited as the most important thrust for change. However, crisis alone cannot explain the content of divergent paths. For instance, Latin American choice of deepening IS has been related to the combination of crisis and big market sizes. And the East Asian choice of embracing primary EO has been attributed to crisis, small markets and the availability of U.S. foreign aid. Colonial legacies and military alliances are other factors that explain different choices.

(ii) At the domestic level, much has been written about the influence of sectoral interests, prominently agriculture, labor and capital. Whether those sectoral interests influence policy or whether policy creates them is not at all clear. It seems clear,

though, that the choice of development strategies created coalitions that opposed change. For example, in Latin American NICs, the length of IS was influenced by urban political constituencies in which the industrial working class was central.

However, the influence of sectoral interests cannot be addressed in isolation from institutional factors. Ultimately, their leverage is a function of how permeable the state is to pressures. NICs have varied in the degree of insulation, centralization of the decision-making process and the instruments policy makers controlled. East Asian countries benefited from autonomous decision processes and cohesive bureaucracies. The East Asian states showed that state capacity does not require insulation but "embedded autonomy". Also, the state command of certain instruments, like the financial system in South Korea or state-owned enterprises in Taiwan, explained choices. The relationship between development strategies and regime type has generated a great debate. All in all, there is little evidence supporting the fact that EO requires dictatorship. Thailand, Malaysia and Indonesia had political regimes ranging from a "semidemocracy" in Malaysia, to a wavering democracy in Thailand and to an authoritarian regime in Indonesia. All of them exhibited high growth rates (Bertrand, 1998).

(iii) Finally, more elusive factors such as ideas, values and culture were relevant. It seems that policy makers have used economic blueprints to make choices and/or to rationalize them. This is best illustrated by the ECLA writings and the adoption of IS. Crises create opportunities for change. State autonomy gives capacity to implement choices. But content is at least in part determined by policy-relevant knowledge. The problem is to isolate exactly which part when other factors push in the same direction. As for culture, there are arguments that attribute the success of EO in East Asia to the values of sobriety, austerity and discipline that characterize Confucianism. In contrast, in Latin

America, the "Ibero-Catholic" heritage would have acted as a hindrance for progress[6].

Even if brief, the summary above makes clear that the choice (and outcomes) of development strategies have been the consequence of a very specific combination of variables. But, although these factors can explain divergent policy choices in one region and another prior to 1980s, they are less effective at explaining why policy has converged in the 1980s and 1990s.

One possible explanation of convergence is learning. In fact, the literature on development strategies is pervaded by "lessons" from success and failure[7]. Bhagwati (1985: 41) states that "many developing countries learned the hard way by following IS policies too long and seeing the fortunate few pursuing the EP strategy [export promotion] do much better. Perhaps learning by others doing and one's undoing is the most common form of education".

The idea that governments adopted EO as a consequence of learning is certainly appealing. But it needs to be proved in order to be fully persuasive.

I test this argument next.

4.4. Learning and Development Strategies

During the 1980s and 1990s, a good number of developing countries gave steps to liberalize their trade regimes[8]. Clearly,

[6] These claims are obviously problematic. For a discussion, see Gereffi and Wyman (1991: 394-397).

[7] See, for instance, Krueger (1997).

[8] The literature on the specific topic of trade liberalization is also immense. Although there is no agreed definition of trade liberalization, it can be described as a set of measures aimed at neutralizing incentives for exports and imports through a removal of quotas, a reduction in the level and dispersion of tariffs, compensatory devaluation and removal or reduction of export taxes. As with development strategies, the literature is pervaded with lessons about the content and sequencing of reforms. Very comprehensive studies are Nash et. al.(1991), Michaely et. al. (1991), Rodrik (1992) and Nash and Takacs (1998).

policy converged. I test whether convergence resulted from learning.

The findings are interesting and quite intuitive. In a nutshell, countries did not adopt EO as a result of learning from experience. I argue that results under the same development strategy were too noisy to provide any clear connection between policy and outcomes. Governments' risk aversion can explain why EO was adopted only recently even if, in the East Asian NICs, this strategy had been yielding good results for a while.

One tantalizing finding is that learning is relevant when noise is reduced. I show that, in Latin America, policy choice can be explained by learning from the experience of miraculous performers only.

I proceed in the following way. First, I discuss the data 4.4.1. Secondly, I present the results of the average model 4.4.2 and finally, I present the results of the miracle model 4.4.3.

4.4.1. Data

The first obstacle one encounters in testing development policy choices is to come up with a decent measure of development strategies. The difficulties are both conceptual and practical. They are conceptual since there is no agreement on what criteria to use to characterize EO and IS. Eventually, most authors use some kind of proxy based either on aggregate indexes[9] or on disaggregated indicators of openness[10].

At a practical level, the type of data required to characterize trade regimes – average tariffs and their dispersion, quantitative restrictions, export subsidies, tax credits, degree of exchange rate

[9] A frequently used one is the Effective Rate of Protection. This is a measure of the bias of the trade regime based on the ratio of the Effective Exchange Rate of Importables (EERm) to the Effective Exchange Rate of Exportables (EERx)..

[10] Level and dispersion of tariffs, the extent of quantitative restrictions on imports and exports, the degree of exchange rate overvaluation, the existence of export subsidies, rebates and compensation schemes.

overvaluation… - are rarely available in a systematic and comparable way.

I have relied on several ready-made lists that classify countries' development and commercial strategies.

The *World Bank Development Report* (1987) provides a list of 41 developing countries between 1963 and 1985. This period is split before and after the first oil crisis (1973). Countries are classified according to their pursuing of a strongly outward oriented, moderately outward oriented, moderately inward oriented and strongly inward-oriented strategies. The definitions of each of these categories are provided in the Appendix A. II.

The *1992 IMF Report in Issues and Developments in International Trade Policy* gives a second list of trade liberalization in the 1980s. In this list, 36 developing countries are classified as having a Tight Control, Significant Control, Relatively Open and Open trade regimes. I give the definitions in Appendix A. II.

As a complementary source of information, I have used the 1994 World Bank Discussion Paper on *Trade Policy Reform in Developing Countries since 1985*.

Since I need a dichotomous indicator of policy, I have clustered in one the strong and moderate categories of the first list and the control and open categories of the second list. For instance, according to my data, Madagascar carried out a moderate inward oriented policy between 1963 and 1973. Between 1974 and 1986, it engaged in a strongly inward oriented strategy. In my coding, Madagascar appears as having engaged in an Import Oriented strategy all throughout the period.

It could be argued that these lists measure different things. Trade policy is part of a particular development strategy, but does not fully characterize it. However, I consider accurate to put trade policy regimes at the center of IS and EO. Besides, when it comes to placing countries under one and the other alternative, the two lists are highly consistent[11].

[11] Except for Tunisia. Another somewhat surprising classified is Brazil, which appears as moderately outward oriented in the WB Report.

My database comprises 51 developing countries, grouped in four regions – Africa, Latin America, East Asia and South Asia -. The years of entry and exit in the database as well as the spells under each strategy are given in Appendix A. II. The period under scrutiny extends between 1964 and 1990. There is a total of 1341 country-year observations of which 957 are under an IS strategy and 384 are under an EO strategy.

During this period, policy clearly converged. Developing countries engaged massively in trade policy liberalization. And even if not all of them carried the reforms so far as to change their development strategy, many of them succeeded in reducing the bias of the regime[12].

Figure 4.1 shows the proportion of countries with an open trade regime. The figure is quite explicit. Towards the beginning of the 1980s, around 20% of the observations corresponded to an open or relatively open trade regime. This figure exceeded 60% at the end of the decade[13].

In my database, overall rates of growth are 1.18 under IS and 3.13 under EO. Thus, apparently, there is no doubt that performance with EO has been better than with IS.

This global picture changes considerably when data are disaggregated at the level of the region and for different time periods.

As table 4.2 shows, rates of growth have been in general greater under EO than under IS. However, good performance under EO seems to have been an East Asian phenomenon. In this region and also under IS, rates of growth have been remarkable. Even in the crisis period (1974-1985), results were outstanding. But a comparison of averages with other regions suggests that this fact has been rather idiosyncratic. A look at performance during

[12] See Appendix A. II.

[13] The countries that liberalized their trade regimes during the 1980s were Colombia, Ecuador, Costa Rica, Guatemala, Bolivia, Argentina, Mexico, Jamaica, Trinidad & Tobago, Venezuela, Cote d'Ivoire, Kenya, Madagascar, Senegal, Ghana, Mauritius, Uganda, Gambia, Zaire, Philippines, Indonesia and Sri Lanka. Peru and Mali launched reforms in the early 1990s.

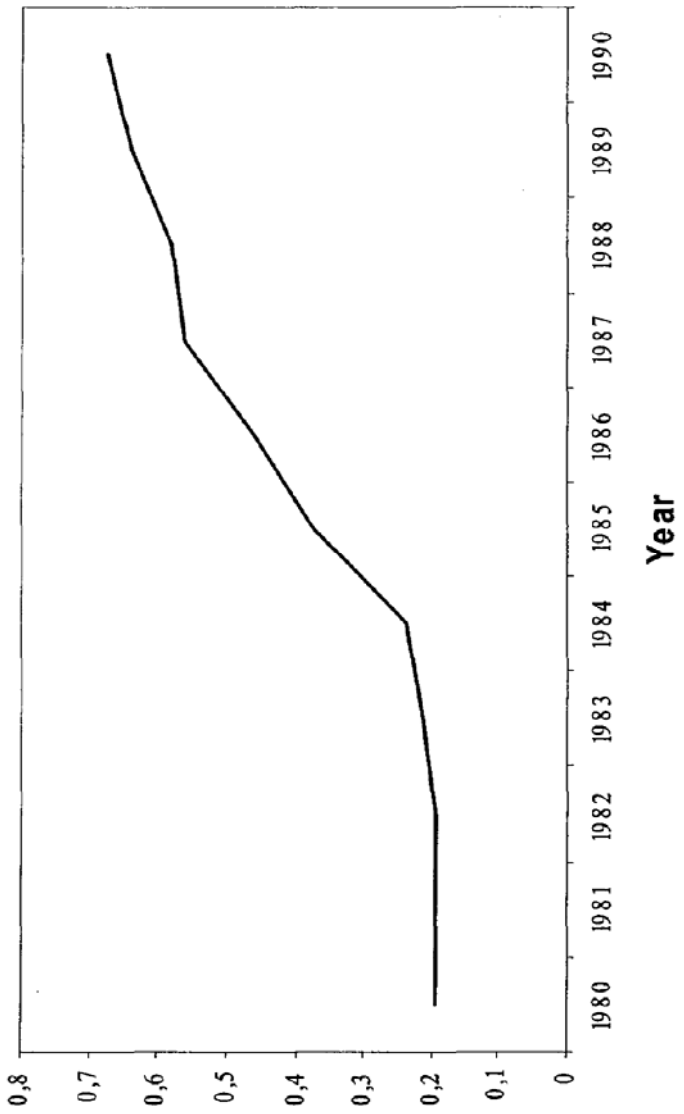

Figure 4.1. Proportion of Trade liberalization, 1980-1990

1986 and 1990 reveals that EO has only succeeded in East Asia. Note that this is the period in which many developing countries engaged in trade liberalization, apparently without the expected effects on growth.

High variability of results under the same strategy pervades the data. For instance, in 1986, rates of growth under EO ranged from 8.29 in Taiwan and 9.6 in Korea to –4.56 and –6.01 in Bolivia and Mexico respectively. In Latin America, figures as the ones just cited coexisted with the better performances of Chile (3.02) or Uruguay (8.74)

Table 4.2. Growth Rates per Region and Decade.

	Export Promotion		*Import Substitution*	
Region	*Growth*	*N*	*Growth*	*N*
Africa				
1964-1973	2.67	20	1.76	178
1974-1985	1.14	23	0.53	229
1986-1990	0.60	41	-0.18	52
South Asia				
1964-1973	-	-	-0.29	43
1974-1985	-	-	3.43	60
1986-1990	0.59	4	2.65	17
Latin America				
1964-1973	3.77	40	2.69	140
1974-1985	0.44	41	0.16	175
1986-1990	0.60	59	-1.33	31
East Asia				
1964-1973	6.62	59	2.19	10
1974-1985	4.64	62	3.53	22
1986-1990	6.10	35	-	-
Total (N=1341)		384		957

I argue that high variability of results under EO and risk-averse politicians precluded a quick change to EO. Average performance has been too noisy to provide reliable information

about what to expect from the application of export promotion. Actually, the high variability of results probably showed politicians that "all countries cannot simultaneously have a positive balance of payments" (Przeworski, 1992: 55). Trade liberalization is a policy with winners and losers.

I show next the results of the "average" and the "miracle" models. In the average model, I assume that governments learn from their own experience, and the average experiences in their region and in the world. In the miracle model, I assume that governments learn only from outstanding performers in the region and in the world. I test the learning model in Latin America, assuming that governments observe the experiences of Chile and of East Asian countries only.

Results show an interesting variation and reveal the importance of proximity.

4.4.2. Average Learning Model

I follow the usual procedure to test the impact of learning on the choice of development strategies. Governments start with some prior beliefs (Appendix A. I) about the expected growth[14] outcomes following each policy status (EO and IS). Each year, new information is available. Prior beliefs are combined with new information to generate posterior beliefs. Decisions on policy are based on those posteriors. The process of updating proceeds sequentially.

I first calculated posterior beliefs about the outcomes of alternative policies and compared them. The empirical test consists in relating the difference in posteriors to the observed path of choices.

As usual, I have structured experience at the level of the country, the region and the world. Also, information concerns both

[14] Taken from the ACLP Political and Economic Database, 1997. Growth is the annual rate of growth of Real GDP per capita, 1985 international prices, chain index.

average results and the variability of results under alternative policies.

Using a dynamic probit model, it is possible to evaluate the impact of learning on both the probabilities of changing status and on the probability of remaining under the same status. However, I only show here the impact of learning on the probability of a transition from IS to EO[15]. Also, since experience with EO is very limited in South Asia – three years in Sri Lanka - I have not included this region in the final model[16].

I expect that the greater the average rate of growth under EO with respect to IS, the more likely a transition to EO. Under the assumption that governments are risk averse, the greater the variability of results under EO, the less likely a switch to this strategy.

Table 4.3 shows that governments have been risk averse and this regardless of the level of analysis. While average results under one and the other alternative have been irrelevant to explain switches, it seems that high variability of results made politicians less prone to change policy. As the strong influence of inertia shows, changes in status were rare.

However, switches occurred. Without abandoning a framework in which only economic performance matters[17], two alternative explanations could apply. According to Fishlow (1990), Latin American countries changed their policies not because EO succeeded but because IS failed. In other words, governments converged to EO after learning from the bad results of IS only. Thus, EO was adopted by default, not due to ideological conversion[18].

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[15] There were only six transitions from EO to IS. Moreover, given the structure of the WB data, these transitions are all placed arbitrary in year 1974.

[16] I decided to exclude South Asia because with such scant regional information, there is no guarantee that the influence of prior beliefs vanishes.

[17] Alternative hypotheses beyond economic performance are explored in Chapter VII.

[18] I tried to test this hypothesis by using the experience under IS only as independent variables. The results match Fishlow hypothesis to some extent.

Another plausible hypothesis contends that governments learn only from outstanding performance as opposed to average performance. Note that focusing on winners helps reduce the noise that may be attached to average results. As I show in section 4.4.3, this hypothesis works quite well, at least for Latin America countries.

Table 4.3. Dynamic Probit Model. Average Performance

	Determinants of Export Orientation		
Dependent V=EO	*Coefficient*	*t-test*	*Mean*
Lagged Status	-3.96	-5.69***	
Own Experience			
Average Results	0.04	1.04	0.18
Variability of Results	-0.10	-1.94*	-0.13
Regional Experience			
Average Results	0.19	1.45	0.59
Variability of Results	-0.48	-2.75***	-1.15
World Experience			
Average Results	-0.22	-1.62	1.94
Variability of Results	-0.99	-3.43***	-1.06
p-value for F			0.000
Observations			1171

*p<.10; **p<.05; ***p<.01; t-tests in parenthesis

	Predicted		
Actual	*0*	*1*	*Total*
0	797	6	803
1	26	342	368
Total	823	348	*1171*

4.4.3. Miracle Models

According to Robinson (1995: 26), "the early post-war success of Japan seems to have been very influential in determining policy

However, multicollinearity is pervasive in the model. For that reason, I do not report the results here. They are available on author's request.

orientation in South Korea and Taiwan, just as these countries' experiences seem to have had subsequent ripple effects in Indonesia, Malaysia and Thailand". However, given the great differences in historical and cultural endowments among regions, these experiences "should have had little impact in Africa and Latin America". Yet, Valenzuela (1997) tells the story of Russian visitors to Santiago seeking the advice of General Pinochet as the architect of the Chilean miracle.

As it is common when it comes to discuss the role of learning from others, statements are based either on reasoned hunches or on ideological preferences.

I show that the East Asian experience did influence choices in Latin America, but it was completely uninformative for African governments. I also show that a "local" miracle, Chile, influenced the adoption of EO in other Latin American countries.

Much has been written about the "South American tiger". But again, consensus ends with one undeniable fact: the Chilean model has generated high rates of export-led growth. Chile grew during a lost decade for the rest of the region. Output increased at an average rate of over 6% per year since the mid-1980s. The engine of growth was macroeconomic stabilization *cum* export promotion and diversification.

Beyond this fact, there is little agreement surrounding the interpretation of the "Chilean model" and its desirability. Nuances revolve around the following points. First, there are two readings of the Chilean experience. The standard one considers it as the quintessential model of neo-liberalism in Latin America. Under the auspices of the so-called "Chicago Boys" and relying on the repressive apparatus of the regime, Chile embarked in a wide-range program of privatization, liberalization and deregulation. Accounts are numerous[19].

A less populated route holds that *laissez-faire* is not the best description of the Chilean model. For instance, Schuman (1996) argues that policies were also "developmental". Using the fishing

[19] See, for instance, Oppenheim (1993), Valdes (1995), Collins and Lear (1995).

industry as illustration, this author shows that the Pinochet regime actively encouraged private sector export-led entrepreneurship by using credit, soft loans, subsidies and tax breaks. Collins and Lear (reviewed in Richards, 1997) share this view. They argue that fruit and lumber production as well as agro-enterprises clearly benefited from government policies and planning. In short, and once more, it seems inaccurate to attribute the Chilean success to market forces only.

Other qualifications to this "success story" focus on the consequences that policies have had on poverty and income distribution. In the late 1980s and 1990s, Chile showed the most unequal distribution of income after Brazil. It turns out that policies have reduced poverty but have increased overall inequality (Hojman, 1996). While the economy grew 28 % from 1992 to 1996, the income of the poorest 20% increased only 9%. In contrast, the income of the upper middle class rose 27% (Valenzuela, 1997) Finally, whatever the achievements of Pinochet's model, the fact that they have been accomplished at the cost of utter repression makes the model deeply unpalatable for many (Richards, 1997)

During the 1980s and 1990s, Africa also engaged in trade liberalization programs. However, policies were carried out at best in an erratic way. "Success" is certainly a category that does not apply to the African experience. Reforms were quite often reversed before completion and results in terms of growth and diversification of exports have been poor (Arreghi, 1990; Shafaeddin, 1995).

In this region, Mauritius and Ghana are the outliers. Particularly Mauritius stands out as an early reformer that managed to increase per capita income by more than half between 1983 and 1990. This success has been attributed in part to a dramatic growth of its export processing zones. Ghana lies somewhat behind in both the scope and depth of its reforms. Still it is the most advanced trade policy reformer in Sub-Saharan Africa after Mauritius (World Bank, 1994b).

Table 4.4. Dynamic Probit Model. Miraculous Performance

	Determinants of Export Orientation		
	Latin America Average Model	*Latin America Miracle Model*	*Africa Miracle Model*
Dependent V=EO	*Coefficient*	*Coefficient*	*Coefficient*
Lagged Status	-8.24*	-10.73**	-3.86**
	(-1.91)	(-2.36)	(-2.53)
Own Experience			
Average Results	0.22	0.14	0.11
	(1.84)*	(0.97)	(1.52)
Variability of Results	-0.16	0.07	-0.09
	(-0.81)	(0.40)	(-1.53)
Regional Experience			
Average Results	-0.37	0.71*	0.18
	(-0.46)	(1.77)	(1.03)
Variability of Results	-1.01	2.53**	0.80**
	(-1.19)	(2.17)	(2.23)
World Experience			
Average Results	0.41	1.79**	0.17
	(0.55)	(2.49)	(0.48)
Variability of Results	-1.78	-1.02	-0.10
	(-1.94)*	(-1.28)	(-0.27)
p-value for F	0.000	0.000	0.000
Observations	468	442	552

*p<.10; **p<.05; ***p<.01; t-tests in parenthesis

Table 4.4 shows the impact of miraculous performances on the decisions of Latin America and Africa. The first column is the standard average model estimated for Latin America only[20]. In the second column, I substituted the Chilean experience for the average regional experience. I also substituted the East Asian experience for the average world experience. Finally, I used these two outstanding performances in the African miracle model as well[21].

[20] Results should be taken with some caution in the view of a high correlation coefficient between two of the independent variables.

[21] Although a local African miracle would have been more interesting, and

When the average model is estimated for Latin America, only the own experience under alternative strategies matters. However, when the regional and the world experiences are limited to good performers, results change dramatically. Both the Chilean experience and the East Asian experience with EO relative to IS have had a positive impact on the probability of switching to EO. Governments also seem to have acted as risk lovers in the view of the Chilean miracle. However, none of these good performances was relevant for African countries.

Despite the fact that conditions between regions differ, it seems that Latin American reformers drew lessons from their East Asian counterparts and that these lessons induced them to change course. To some extent, results make sense. After all, the bulk of the discussion on development strategies has revolved around the contrasting experiences of East Asia and Latin America. If someone had something to learn from this pervasive comparison, Latin American politicians were the obvious candidates.

4.5. Conclusions

The debate on development strategies is central to economics and political science. Despite the voluminous literature on the topic, there are many important issues that remain unresolved.

Although the causes and consequences of development strategies are complex stories, analysts have rushed to extract lessons and to endow them with the shape of ready-to-use recipes for growth. Those lessons can be summarized along two lines: state failures are worse than market failures and export orientation produces better performance than import substitution. The first lesson was extracted from the Latin American NICs. The second lesson found its living example in the performance of the East Asian tigers. The policy recommendation followed suit: in order to grow at East Asian rates, all that is needed is to carry out the same

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Mauritius would have been the obvious candidate, its experience with EO starts relatively late (1980). Again, the influence of priors could be problematic.

policies. This was taken to be equivalent to a withdrawal of the state in favor of the market.

Some of the lessons regarding the causes and consequences of development strategies have been clearly oversimplified. Governments have opted for different development strategies as a result of particular junctures and factors. By the same token, the consequences of alternative strategies seem to be contingent on very specific conditions. Hence, replication does not guarantee the same results.

Many of the variables discussed are useful to explain why development strategies diverged. But the fact is that during the 1980s and 1990s, policy converged. The subsequent question is why. I hypothesized that policy converged as a result of learning.

The Bayesian model of learning reveals that governments were clearly risk averse when it has come to changing development strategies. This result is consistent with the fact that, under the same status and in different regions, rates of growth have exhibited an enormous variation.

The reasons for convergence can be different from mere performance, of course. But for the time being, I have explored other alternative explanations that focus on results only.

When outstanding performance substitutes for average results, learning does matter. In other words, governments' decision to change policy is related to learning from "successes". This has been the case in Latin America, where switches can be explained in terms of the Chilean and the East Asian miracles. However, these miraculous performances did not have any relevance for African countries. It seems that miracles have to be "local" in order to be influential. It is not surprising that the East Asian miracle had some influence in Latin American countries and none in Africa. After all, the bulk of the debate about development strategies has revolved around the contrasting experiences of the East Asian and the Latin America NICs. The latter were clear candidates to learn from the debate.

Appendix A. I

Based on the average rate of growth and the variability of results on the world the year before entering the database

Table 4.5. Prior Parameters

Year	*Export Orientation*			*Import Substitution*		
	Mean	*DofFE*	*SofSE*	*Mean*	*DofFI*	*SofSI*
1964	1,97	25	483	2,24	19	255
1965	3,83	21	323	2,16	28	624
1968	3,42	19	255	1,04	22	360
1971	8,2	30	728	2,21	61	3363

Appendix A. II

World Bank Development Report (1987) criteria for regime classification:

- Strongly Outward Oriented: Trade controls are either nonexistent or very low in the sense that any disincentives to export resulting from import barriers are more or less counterbalanced by export incentives. There is little or no use of direct control and licensing arrangements, and the exchange rate is maintained so that the effective exchange rate for importables and exportables are roughly equal.

- Moderately Outward Oriented: The overall incentive structure is biased toward production for domestic rather than export markets. But the Average ERP for the home market is *relatively* low and the range of ERP is *relatively* narrow. The use of direct controls and licensing arrangements is limited and although *some* direct incentives to exports are provided, these do

not offset protection against imports. The EER is higher for imports than for exports, but only slightly.

- Moderately Inward Oriented: The overall incentive structure distinctly favors production for the domestic market. The ERP for home markets is *relatively* high and the range of ERP *relatively* wide. The use of direct import controls and licensing is extensive, and although some direct incentives to export may be provided, there is a distinctive bias against exports, and the exchange rate is clearly overvalued.

- Strongly Inward Oriented: The overall incentive structure strongly favors production for the domestic market. The average rate of effective protection for home markets is high and the range of effective protection rates relatively wide. Direct controls and licensing disincentives to the traditional export sector are pervasive, positive incentives to nontraditional exportables are few or non existent and the exchange rate is significantly overvalued.

IMF Report (1992) criteria for regime classification.

Trade policy after reform	*Tariff range (%)*	*QRs Coverage (% of M)*
Tight Control		> 50 %
Significant Control		15-50 %
Relatively Open	Maximum tariff > 50%	5-15 % or < 5 %
Open Group	Maximum tariff < 50%	< 5 %

Table 4.6. Trade Reform in the Developing World in the 80s

Country	*Year*	*Country*	*Year*	*Country*	*Year*
Cameroon	1989	*Brazil*	1986	*Indonesia*	1985
Cote d'Ivoire	1984	*Colombia*	1985	*Korea*	1985
Kenya	1988	*Ecuador*	1985	*Malaysia*	1986
Madagascar	1987	*Costa Rica*	1986	*Philippines*	1985
Morocco	1983	*Guatemala*	1986	*Thailand*	1982
Malawi	1988	*Chile*	1985		
Nigeria	1986	*Mexico*	1985	*Bangladesh*	1985
Senegal	1986	*Honduras*	1990	*Nepal*	1986
Tunisia	1987	*Peru*	1990	*India*	1988
Ghana	1986	*Bolivia*	1985	*Pakistan*	1989
Gambia	1986	*El Salvador*	1989	*Sri Lanka*	1987
Zaire	1983	*Argentina*	1987		
Tanzania	1988	*Venezuela*	1989		
Zambia	1985	*Uruguay*	1983		
Mauritius	1980	*Jamaica*	1985		
Mali	1990	*Trinidad y Tobago*	1989		
South Africa	1989				
Uganda	1987				

Source; IMF(1992); WB (1992)
Data for Mauritius is available in Nash and Takacs (eds). 1998.

Table 4.7. Countries, Year of Entrance and Exit

	Region	*Year Beginning*	*Year Ending*		*Spells with an EO strategy*
Africa					
Burundi		1964	1990	Never	
Cameroon		1964	1990	1964	1973
Ethiopia		1964	1986	Never	
Gambia		1965	1990	1986	1990
Ghana		1964	1990	1986	1990
Cote d'Ivoire		1964	1990	1964	1973
				1984	1990
Kenya		1964	1990	1988	1990
Madagascar		1964	1990	1987	1990
Malawi		1964	1990	Never	
Mali		1964	1990	1990	
Mauritius		1968	1990	1980	1990
Morocco		1964	1990	Never	
Nigeria		1964	1990	Never	

Region	*Year Beginning*	*Year Ending*		*Spells with an EO strategy*
Senegal	1964	1990	1986	1990
South Africa	1964	1990	Never	
Sudan	1971	1990	Never	
Tanzania	1964	1988	Never	
Tunisia	1964	1985	1974	1985
Uganda	1964	1990	1987	1990
Zaire	1964	1989	1983	1989
Zambia	1964	1990	Never	
South Asia				
Bangladesh	1971	1990	Never	
India	1964	1990	Never	
Nepal	1964	1986	Never	
Pakistan	1964	1990	Never	
Sri Lanka	1964	1990	1987	1990
Latin America				
Costa Rica	1964	1990	1964	1973
			1986	1990
Dominica R.	1964	1990	Never	
Salvador	1964	1990	Never	
Guatemala	1964	1990	1964	1973
			1986	1990
Honduras	1964	1990	Never	
Jamaica	1964	1990	1985	1990
Mexico	1964	1990	Never	
Nicaragua	1964	1990	Never	
Trinidad & Tobago	1964	1990	1989	1990
Argentina	1964	1990	1987	1990
Bolivia	1964	1990	1985	1990
Brazil	1964	1990	1963	1990
Chile	1964	1990	1974	1990
Colombia	1964	1990	1964	1973
			1985	1990
Ecuador	1964	1990	1985	1990
Peru	1964	1990	1990	
Uruguay	1964	1990	1974	1990

Region	*Year Beginning*	*Year Ending*		*Spells with an EO strategy*
Venezuela	1964	1990	1989	1990
East Asia				
Indonesia	1964	1990	1964	1973
			1985	1990
South Korea	1964	1990	1964	1990
Malaysia	1964	1990	1964	1990
Philippines	1964	1990	1985	1990
Singapore	1965	1990	1965	1990
Taiwan	1964	1990	1964	1990
Thailand	1964	1990	1964	1990

CHAPTER V

LEARNING AND PRIVATIZATION

5.1. Introduction

According to many analysts, privatization has "swept the world". This chapter explores why. Concretely, I survey whether in industrial countries and in Latin America, governments have engaged in privatization as a result of learning.

Beginning in the late 1970s and especially after 1983, privatization was launched by Margaret Thatcher in Great Britain. This policy innovation was timidly embraced elsewhere during the 1980s. However, during the 1990s, it became a new mantra in developed and developing countries. Privatization also constituted a central issue in post-communist societies.

Although this secular trend towards privatization has exhibited important regional variations[1], there is no doubt that privatization has been a massive phenomenon. Moreover, it has cut across ideological leanings. Socialist governments in Europe as well as

[1] According to World Bank data, by number of transactions, regions rank in the following order: Eastern and Central Europe (361), Latin American and the Caribbean (104), East Asia (33), Southeast Asia (30) and the Middle East and North Africa (19). Note also that despite this wave, there are at least 47 developing countries that did not undertake even a single privatization in the period 1987-97 (Brune and Garrett, 2000: 5). See also Ramamurti (1999: 138).

populists in Latin America have joined the privatization bandwagon.

The reasons for this wave of divestitures have been widely addressed but hardly tested. As usual, motives for privatization range from efficiency to more complex political rationales. Among the latter, both domestic and international political factors have played a role. But while domestic variables are better at explaining differences in the intensity, success or otherwise of the privatization process, international forces are better equipped to answer the question as to why so many countries and why now.

This is the result provided by one recent exception to the dearth of empirical research on the causes of privatization. Brune and Garrett (2000) found that diffusion effects explain privatization better than domestic political and economic factors or a country's position in the international economy. Even after controlling for the pressure exerted by International Financial Institutions in favor of privatization, the contagion effects persisted. But there is a subtle question yet to be addressed. This question is whether those diffusion effects are the result of emulating competitors or learning.

As I show, the learning hypothesis cannot be rejected as a plausible explanation of the decision to privatize. However, once a government engages in privatization, it continues privatizing regardless of experience.

I proceed as follows. Section 5.2. is a brief summary of the economic and political reasons for privatization. In section 5.3, I review the privatization process in the regions that constitute the core of the empirical test: OECD and Latin America. In section 5.4, I present the data and the results of the learning model. I conclude in section 5.5.

5.2. Explaining Privatization

Privatization is the selling of state enterprises and other public assets to private parties (Ikenberry, 1990: 88).

In this section, I review the reasons to privatize. I first survey the economic motives and then I address the political aspects of privatization.

The general case in favor of private ownership of enterprises is based on agent-principal theory. In a context of asymmetric information, complete contracts cannot be designed. Ill-defined property rights weaken mechanisms of control of agents (officials) by the principals (the public). This opens the door for shirking and for the pursuing of private ends, which in general do not coincide with those of the public. Private ownership guarantees that there is a residual claimant to profits and hence, an incentive to maximize them.

Such account presents private ownership as intrinsically better than public ownership. This theoretical argument has been coupled with the empirical observation that, at least in less developed countries (LDCs), public enterprises are a major drain for the state budget. For example, central government subsidies to SOEs in Tanzania equal 72% of central government spending on education and 150% of central government spending on health (World Bank, 1995). However, public enterprises in countries like France, Austria, Taiwan or South Korea have exhibited a remarkable performance[2] (Rowthorn and Chang, 1994). There is no intrinsic good or evil to public enterprises. Specific conditions and case-by-case appraisals seem to be essential.

There are at least two caveats against a single-minded argument in favor of privatization based on efficiency considerations.

First, ownership alone does not guarantee a more efficient allocation of resources (Pitelis and Clarke, 1994; Rowthorn and Chang; 1994; Parker, 1998; Ramamurti, 1999; Hodge, 2000). Ultimately, it is the competitive environment in which firms operate what determines the effects of this and that ownership structure. In fact, it may well be the case that privatization ends up in simply transforming a state monopoly in a private one. The

[2] As I pointed out in Chapter IV, a great part of Taiwan success with Export Orientation has been precisely attributed to the state's reliance in SOEs.

contrasting experiences of China and the Eastern European economies illustrate this point. While China emphasized competition and then privatization, Eastern European countries and Russia reversed this sequence. Growth has been spectacular in China. However, in Eastern Europe, GDP per capita has remained the same as in 1989. In Russia, average income has cut in half since 1989 (Stiglitz, 1998).

Second, rent-seeking behavior in public enterprises has been one of the most predicated arguments in favor of privatization. However, privatization itself has been a fertile ground for the appearance of corruptive practices. Jan Olszewski, one of the many Polish Prime Ministers stated before the Sejm that "we've learned that the invisible hand of the market is the hand of the swindler, garnering funds from the public trust". In the same vein, a senior economic adviser to Chernomyrdin predicted that, in Russia, corruption would create a "statist private sector" and a "privatized government" (quoted in Celarier, 1997: 533, 537; Kaufmann and Siegelbaum, 1996). Corruption is not exclusive of former socialist economies. In India, the privatization of telecommunications was thwarted by corruption. And in Mexico, the privatization of the banking system allowed drug traffickers to buy bank stocks and seek election to bank boards.

Apart from efficiency, there is a more urgent, pragmatic economic rationale for privatization: it provides fast cash for governments in need to reduce large budget deficits, cut taxes and finance public spending. Regardless of whether the need derives from maintaining creditworthiness amidst mounting debt, honoring policy conditionality or meeting Maastricht criteria[3], privatization of public enterprises - quite often in sound financial conditions - has offered a relatively easy way out to solve the budget deficit constraint.

Finally, although there seems to be an intuitive link between bad economic conditions and an increase in the willingness to privatize (World Bank, 1995), empirical research does not support

[3] Deficit cannot exceed -3% of GDP.

this view. Brune and Garrett (2000) find that privatization is surprisingly promoted by good, not bad, economic conditions. Low inflation rates, low levels of short-term debt and high per-capita incomes spur privatization. Only low investment levels have the same effect.

Turning to the political rationales, I distinguish between domestic and international determinants of privatization.

At the domestic level, ideology has been central to privatization in a few prominent cases. Conservatives in Britain, the French right and Augusto Pinochet in Chile all embraced privatization with the aim at shifting the boundary between the public and the private sphere in favor of the latter. By diminishing the area of influence of the state, it was intended to bring private initiative and personal responsibility to the forefront. It is important to note that this anti-State philosophy has not been equally shared by the right elsewhere. It had little echo in Christian Democratic debates in Italy, West Germany, Belgium and the Netherlands and it was absent from right-wing thinking in Spain until recently (Vickers and Wright, 1989). It is also important to note that the privatization *mania* was not equally shared by conservative leaders and backbenchers.

Behind this shift in the balance between the state and the individual lied the desire to build a "property-owning democracy". According to one member of Thatcher's cabinet, privatization would lead to "real public ownership - that is, ownership by the people" (quoted in Vickers and Wright, 1989: 6). And behind the desire to build "popular capitalism" there was an insidious political objective: to emasculate labor union power by transforming union members into share-owners. This strategy was envisioned as a means to deprive the left of a fundamental constituency. As Nigel Lawson openly put it "a new army of shareholders would prevent the Labor party from putting the genie of individual ownership and participation back into the nationalized bottle" (quoted in Maloney, 1994: 140).

This account alone does not explain why privatizations were not reversed when the right lost office. When the French left took

over again in 1988, Mitterrand announced no more privatizations, no more nationalizations. Labor in Britain never threatened to reverse the privatization process. Moreover, ideological factors alone cannot explain why socialist and populist governments have endorsed privatization with less zeal but similar resolution elsewhere.

Apparently, the left's acquiescence to privatization has been motivated by a dramatic and sudden swing in public mood against nationalization. The magnitude of this swing was such that privatization became hegemonic. As a result, its opposite, nationalization, could not be publicly advocated without incurring in enormous political costs. Using the French and British cases, Kalyvas (1994) argues that the incidental coincidence of an acute economic crisis with nationalization led to an attribution of responsibility to policy (nationalization) for the outcome (crisis). There was nothing intrinsically wrong in a policy that simply ran into bad luck. But this association dramatically reduced public support for nationalization. This story challenges the most established hypothesis, namely, that the popularity of privatization derived from an active strategy of promotion by its defenders. In fact, privatization became an issue for the right only after the swing in public mood against nationalization had occurred.

Beyond domestic political factors, it has been argued that the spread of privatization, especially to the third world, has resulted from imposition, emulation and learning.

Third World countries would have privatized under the pressure of multilateral lending agencies, which have privatization as part of their creed. Alternatively, governments would have engaged in privatization as a result of systemic changes in the world economy. In a context of increased competition, globalization of production, technological innovation and drying up of financial resources, enhancing efficiency became an inescapable requirement. However, according to Brune and Garrett's analysis, only World Bank programs seem to have had a positive impact on the decision to privatize. Neither IMF programs

nor the degree of trade openness and capital mobility[4] have influenced this policy decision.

According to their research, in the developing world, privatization has been driven by diffusion. The more prior privatization in the region and in countries sharing a common legal heritage, the more a particular country subsequently privatized. But diffusion can be the outcome of different processes. It may result from competition, mimicry or learning. Countries may copy the policies of their partners in fear that non-adoption may cause a dislocation of economic activity in favor of the country that embraces a particular policy[5]. Another explanation is that countries copy the policies that seem to work elsewhere either because there is a historical, geographical or cultural attachment with the country that innovates (mimicry) or because successes (or the perception of success) produce new consensual knowledge about cause-and-effect relations (learning).

In relation to the role of learning, Schamis (1992) contends that socialist coalitions in France learned from Thatcher's privatization program. In the same vein, populist parties in Argentina and Mexico admitted the merits of Pinochet's economic policy, which had privatization as its hallmark. In relation to Latin America, Manzetti (1999: 19) has asserted that emulation "based upon the positive results of previous privatization experiences in other countries" provided further incentives for privatization. He contends that, in Argentina, "[t]he positive results evidenced by privatization policies in a number of European countries, Mexico, and neighboring Chile may also have had some impact on Menem's pragmatic considerations". And he adds "although the Argentine and Peruvian presidents were far from being true believers [in privatization], they turned out to be quick learners" (p. 299).

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[4] which the authors use as proxies for economic globalization,

[5] See Simmons and Elkins (2000) for an empirical test of this argument applied to the liberalization of the current account, the capital account and the exchange rate regime.

But whether learning has been a relevant factor in the decision to privatize is an empirical question.

5.3. Privatization in Europe and Latin America

I briefly review some distinctive characteristics of the process of privatization in some OECD countries and Latin America. These two regions constitute the core of the empirical test of learning that I present in section 5.4.

There has been a prolific production of case studies that describe in full detail the contingencies of the privatization process here and there[6]. Since hardly anything could be added to these stories without being redundant, I focus on a few contrasting aspects that relate to the discussion presented in section 5.2.

In the explanatory model of privatization suggested by Manzetti (1999), the decision to privatize is a combination of willingness and opportunity. *Willingness* is related to both ideological and pragmatic considerations. Ideologically, the main thrust is a conscious attempt to redefine the boundaries of state action. Pragmatically, the drives are several[7] but the short-term objective of reducing the fiscal deficit is the most prominent. *Opportunity* is closely related to public opinion perceptions of privatization and nationalization[8].

The account of privatization experiences in Europe and Latin America along the lines of ideology, pragmatism and opportunity shows an interesting variation within and across regions. I argue

[6] See Vickers and Wright (1989), Suleyman and Waterbury (1990), Baer and Birch (1994), Wright (1994), Lieberman (1994), World Bank (1995), OECD (1996), Parker (1998), World Bank (1998), Ghosh (2000), Birch and Haar (2000).

[7] Overall improvement of economic efficiency, modernization of domestic economy, strengthening capital markets, improvement of business climate, rationalization of state operations and reward supporters.

[8] Other factors influencing opportunity are the availability of tenders and the existence of foreign pressure and financial support.

that variation in domestic factors is too important to explain the recent swing to privatization.

As I sketched above, Margaret Thatcher and Jacques Chirac's stories are tales of *ideology cum opportunity*.

In the well-documented British case, privatization was endorsed to create a situation in which nationalization was simply inconceivable. Privatization was envisioned as an instrument of coalition building, of transforming the regular citizen into a shareholder, and hence, into a loyal rightist voter. A conventional story suggests that, in so doing, the Conservatives managed to provoke a radical shift in public perceptions. According to Anthony Heath, Thatcher would have "made converts to the free enterprise philosophy". Veljanovski asserted that the "growing popularity of privatization…has been deliberately engineered by the Conservatives" (p. 330). But actually, the anti-nationalization and pro-privatization swing among the public took place before privatization was introduced. Privatization appeared as an "after-thought" in the 1979 Conservative Manifesto and was only massively launched after the 1984 election showed that notable political gains accrued from privatization.

In France, after the legislative elections of March 1986, privatization was a popular policy among the public. According to a Gallup poll of September that same year, 61% of the public thought that privatization was a good idea and only 24% were opposed to it (Suleiman, 1990: 123). And ideology also mattered. Gaullist launched a swift privatization program maintaning throughout that "privatization [was] the veritable nationalization of the economy" (Jacques Chirac, quoted in Suleiman, 1990: 127) and that a new category of partners was to be created: the employee-shareholders.

In the rest of Europe, privatizations are better explained in terms of *pragmatism cum opportunity.*

For instance, in West Germany, privatization was introduced by the coalition of the Christian Democrats of the CDU-CSU and the liberal Freedom Democratic Party (FDP). But the program was never too ambitious neither on paper nor in practice. The few

transactions that were accomplished were meant to appease the demands of the FDP and its wealthy clientele. In fact, "the broad mass of the electorate did not see privatization and deregulation as self-evident political objectives". Moreover, "popular shareholding capitalism no longer held vote-winning properties for the major parties" (Esser, 1998: 119). Esser concludes that privatizations in Germany were purely symbolic ("we are privatizers too") and driven by fiscal considerations.

The secondary role of ideology is evident in the Spanish privatizations under the Socialist Party. Felipe Gonzalez liked to remind that "the idea of nationalization was not an idea of the left" (quoted in Bermeo, 1990: 145). Actually, pragmatic privatizations were favored by the fact that the bulk of the SOEs sector had been a product of Francoist rule. Opportunity also mattered. Due to lack of support among the public, the technocratic faction of the party and certainly its leadership, for whom the ill-fated French experiment turned out to be a powerful lesson (Maravall, 1997), nationalization played a symbolic role in the 1982 socialist platform.

Although "nationalization was not an idea of the left", the PASOK of Papandreu engaged in a program of further state intervention after the 1981 election. A well-entrenched communist party and a 69% of Greeks favoring this policy can explain the decision, at least in part. However, the imperatives of economic convergence in the framework of the European Union (EU) have been a major thrust to privatize after 1991.

Something similar happened in Portugal. Under the leadership of the center-right PSD, Portugal changed its constitution to allow for privatizations. The party platform openly addressed denationalization. Before the July 1987 election, 67% of the public agreed with this policy; after the elections, the figure went up to 80%. The election of a socialist government in the 1990s only accelerated the process (Bermeo, 1990: 153; Parker, 1998b).

In other European countries, privatization has been undertaken without any apparent reason, not even of a pragmatic type. According to Willner (1998: 179), motives for privatization in

Denmark "do not appear to be ideological and efficiency, as such, [was] not an issue". As for the Netherlands, the issue at stake has not been why to privatize but why not to do it if everybody else is doing it. Being unnecessary from an economic point of view, the Dutch privatization programme "[could] be interpreted as a curtsy to the times" (Hulsink and Schenk, 1998: 255).

In Latin America, privatization has been extensive. After Eastern and Central Europe, Latin America is the region in which more transactions have been accomplished. Within this region, Argentina, Bolivia and Peru have privatized half of more of their SOEs assets. Mexico privatized about one-fourth and Brazil appears at the other end of the spectrum with a much less deep privatization process (Ramamurti, 1999: 138).

The same variation in the balance between ideology, pragmatism and opportunity can be found in Latin American countries.

In Chile under Pinochet, ideology was a fundamental motive whereas opportunity was not a primary concern. The Chilean sequence can be described as one of reprivatization, privatization and hyperprivatization (Sigmund, 1990). In the phase of reprivatization, 259 intervened and requisitioned enterprises under Allende were returned to their owners. In the 1970s, more that 200 SOEs and banks were sold to private investors; but the acute crisis and the small size of Chilean capital market led to a concentration of property in a few conglomerates *(los grupos)* with access to foreign capital. In 1982, a wave of bankruptcies forced the government to take over the largest private financial institutions, including the Bank of Chile, in what some analyst described as the "the Chicago way to socialism". This proved to be a temporary reversal, though. Starting in 1985, the process of privatization gained momentum with a clear aim at promoting "popular capitalism". Minister of economy, Modesto Collado, was explicit in explaining the envisioned task of the regime:

> Between the two well known options in the world today, [the Chilean] has chosen the economic system based fundamentally on

> the idea of the right of property. This is one of the pillars of a free society and one of the keys to the success of the advanced western nations. For this right of property to be truly effective, it must be accompanied by an access to property that is extensive, massive and indiscriminate (in Maloney, 1994: 139)

The Mexican privatization process has also been depicted as a deliberate attempt at rolling the state back. The hesitant De la Madrid's disincorporation process[9] became a full-force privatization under Carlos Salinas de Gortari. Efficiency was the official justification. Yet, relatively efficient and profitable SOEs like Telmex or Mexicobre underwent a similar fate. Some authors interpreted the privatization drive as an attempt to restore the government-private sector partnership halted by the statist policies of Echevarria and Lopez Portillo (Schneider, 1990; Ramirez, 1994). For others, the intensity of the process is explained as an attempt to create an irreversible situation. According to James Cypher (in Ramirez, 1994: 41), the dismantling of the parastate sector represented "a piecemeal method of undercutting any future turn towards populism in Mexico".

However, endorsing privatization as a means to come up with a radically different model of society is rare in the region. Contrary to Chile and Mexico, *pragmatism cum opportunity* has been the main thrust to privatize in other Latin American countries.

In clear contrast to Collado's views, Fujimori stated in relation to his privatization program that "there [was] no heterodoxy, nor orthodoxy; no liberalism, nor communism, or populism, only pragmatism" (Manzetti, 1999: 246). This seems to have been the view shared by other political leaders such as Menem in

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[9] De la Madrid made it clear from the beginning that the state would maintain its developments role *(rectoria)*. He stated that "[t]o direct the process of development is the fundamental responsibility of the Mexican state. Its obligations in this regard cannot be renounced and are necessary to fulfill the constitutional project of nationalism, plural democracy, and mixed economy" (in Schneider, 1990: 329).

Argentina[10] and Fernando Collor or F. H. Cardoso in Brazil, who engaged in privatization amidst rampant inflation and against the background of failed neo-keynesian experiments.

Whether this change in perception took place among the public is more problematic. Privatization was popular in Argentina, and to a lesser extent in Peru; but there was no public demand for privatization in Brazil.

In Argentina, privatization was seen as the milestone of the economic reform program and since its inception, it counted with a large popular acceptance. To some extent, support was the upshot of a deliberate strategy. After taking office, the government allowed the deterioration of performance of SOEs in public utilities in order to build consensus for divestitures.

This same strategy was pursued in Peru, where privatization had been noticeably rejected in Fujimori's campaign and absent from his initial agenda. Despite this rejection, Fujimori endorsed privatization to please the socioeconomic elites whose support he needed to rule. But he made privatization contingent on his continued popularity.

Privatization in Brazil could not be capitalized on popular dissatisfaction with SOEs, which until the late 1970s had performed well. Also, contrary to Peru and Argentina, there was no a clear advocate of privatization (party or public character) to spur the debate. Hence, when Fernando Collor launched his privatization program in 1990, both elites and the public had mixed feelings about the appropriate role of the state. Only later did the public start to conceive privatization as a possible way out to deteriorating economic conditions. By the time Fernando Henrique Cardoso took office in 1994, public opinion was much more supportive of his privatizing plans[11].

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[10] This does not mean that the Argentine privatization program lacked other political goals. The emasculation of Peronist unionism was one.

[11] In June 1993, 49% of the respondents of a nationally based survey were against the privatization of Petrobras and 36% supported it. In April 1994, approval ratings for breaking the monopoly of Petrobras and Telebras were at 55% and 47% respectively Manzetti, 1999: 181-182).

This account is far from been exhaustive in depth and scope. However, it shows that neither ideology nor pragmatism or opportunity alone can explain the decision to privatize. Also, it seems that beyond the presence/absence of these motives, the way they are pitted against each other is not unique. Ideology, pragmatism and opportunity happened together exceptionally (Great Britain, especially after 1983 and Portugal under Cavaco Silva). In some cases, ideology was favorable, but opportunity was against privatization (Germany). In other cases, ideology played against privatization but pragmatism dominated and opportunity existed or was deliberately created (Spain, Argentina and Peru). Finally, there are cases in which none of the three factors are powerful enough to explain the decision to privatize (Denmark and The Netherlands).

The variation in motives as described above is compatible with the one observed in the way the privatization process evolves, its intensity and fate. But it is less compatible with the fact that all countries included in my database carried out some transaction in 1993. This phenomenon seems to be better explained by diffusion effects of some sort. My next task is to test whether diffusion has been the outcome of a learning process. As I show, this hypothesis cannot be rejected.

5.4. Learning and Privatization

The hypothesis that politicians have rejected nationalization and embraced privatization as a result of learning has often been contemplated (see for instance, Howlett and Ramesh, 1993).

The story would be one of politicians observing the "failure" of nationalization and the "success" of privatization, thereby changing their beliefs about the expected outcomes of one and the other policy and, eventually, switching course. Note that the attribution of responsibility to policy for the outcomes is crucial. Privatizations in Britain were perceived as a success even if, in

fact, they did not increase competitiveness and efficiency and not even induced fiscal discipline[12].

Despite the dubious economic success, the British privatization process was a political watershed with apparently exemplar effects. In Thailand, the deputy minister in charge of privatization asserted: "in a way we are starting to follow the policies of Mrs. Thatcher which seem to have been very successful in Britain" (in Ikenberry, 1990: 102). And Edouard Balladur stated that "the British experience [with privatization] was, without any doubt, the best example and the one that had the greatest similarities with what we wanted to do" (in Suleiman, 1990: 122).

I discuss data issues first and then I provide the empirical test of learning.

5.4.1. Data

The test of learning is based on 37 countries during the 1980-1997 period. These countries have been grouped in two regions: OECD and Latin America. The list of countries, years of entrance and exit and spells of privatization are given in Appendix A. II.

I have used the *World Bank Privatization Data*. This database has information on approximately 8,000 privatization transactions in low and middle-income countries during the period 1988-98. Garrett, Guillen and Kogut (2000) database *Privatization around the World* has information on more than 4,300 privatization transactions also for developing, transition and OECD countries. Finally, I used the *1990-2000 Privatization Yearbooks*[13].

I complemented the information in these databases with secondary literature. I took some arbitrary decisions about where

[12] It seems that the most important lesson politicians extracted from the Conservative experiment was it feasibility without incurring in an electoral debacle. See Suleiman, 1990.

[13] These sources provide an enormous amount of data of great value but they were not fully reliable for my purposes. External checks revealed years in which privatization were accomplished but transactions were not reflected in the data. For this reason, I decided to limit the scope of the empirical test.

to place the beginning of the privatization process. In most cases, I have placed the beginning coinciding with the existence of a systematic and deliberate program at slimming down the state sector. To give some examples, I have disregarded the isolated privatization of British Pretoleum in 1977 under a Labor government. Although Chile reprivatized and privatized during the 1970s - to temporarily nationalize after - I have placed the starting year in 1985 coinciding with the "popular capitalism" phase. By the same token, I have overlooked the scattered privatizations accomplished during the Mexican disincorporation process. And although some sell-outs took place in Spain in the period 1984-1986, there was no a purposive denationalization program until 1988[14].

According to my data, 308 country-year observations of the total 660 correspond to years of privatization activity. As figure 5.1 shows, this activity clearly concentrated in the early 1990s, reaching a peak in 1993. It was slightly reversed at the end of the period coinciding with the Mexican (1994) and East Asian crisis (1997).

In section 5.2, I argued that pragmatism alone is not a good predictor of the decision to privatize. Eventually, privatization results from a complex mixture of pragmatism and politics. Some figures may be telling.

For example, I coded as "bad deficit" those years in which the budget deficit was greater than -5% and -3% of GDP in Latin America and the OECD respectively. According to this criterion, there are 145 observations in which there was privatization and a "good deficit" and 158 observations in which there was no privatization and a "bad deficit".

Neither is the budget constraint a good predictor of privatization nor is privatization a good predictor of a smaller budget deficit. In the 1980s and in both regions, the budget constraint was tight in many countries. For instance, in Belgium, average deficit between 1980 and 1986 was 11.03% of GDP,

[14] A Codebook with details exists at the author's request.

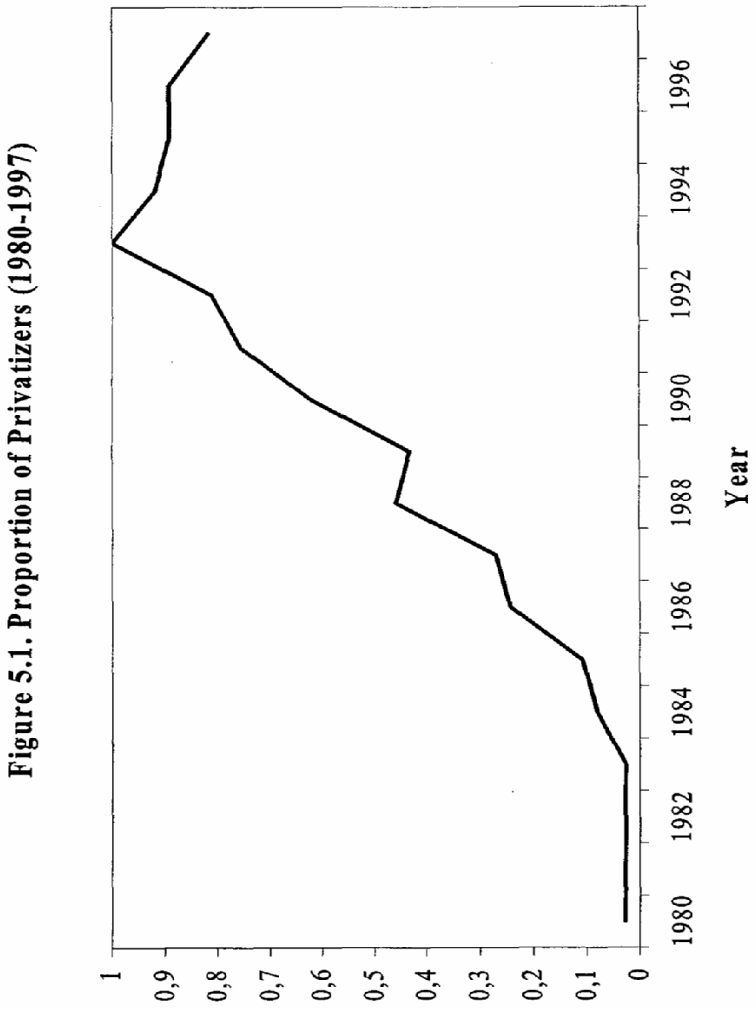

Figure 5.1. Proportion of Privatizers (1980-1997)

12.08% in Ireland and 18.4% in Nicaragua. Still, very few privatizations were accomplished those years.

Despite privatization being pervasive in the 1990s, it was not a good instrument to check public deficit in the face of bad economic conditions. The French budget deficit was greater in 1993 under right of center rule and privatization than it was during the socialist rule and nationalization (it was –3.51% in 1983 and –6.55% in 1995). Countries like Great Britain, Spain or Brazil experienced increases in their budget deficits despite persisting in privatizations[15]. In 1980, Great Britain had a deficit equal to –4.64% of GDP. It was –5.29% in 1995 and it reached a peak of –6.45% in 1993.

Also, it is striking to observe that convinced privatizers like Chile never experienced a tight budget constraint (-2.96% was the peak in 1984). Another suspect of fiscal indiscipline, Argentina, exhibits a better performance than some European counterparts like Italy or Greece. The peak deficit in the period amounted to –7.9% of GDP in 1983. It was a low –0.38% the year before the privatization program was launched.

Regarding average rates of growth[16], it was 3.10% (N=308) for those country and years privatizing. Average growth was 2.09% (N=352) for those countries and years that did not privatize.

In the OECD region, there is hardly any difference between average growth under alternative status. It was 2.51% (N=200) for those privatizing and 2.67% (N=211) for those that did not privatize. However, in Latin America, average rate of growth for those privatizing was 4.19% (N=108) whereas it was 1.23% (N=141) for those that did not privatize.

The test of learning relates posterior beliefs about growth results under alternative policy status with the observed path of policy choices.

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[15] Admittedly, I am disregarding whether privatization, despite existing, involved less transactions.

[16] Annual percentage growth rate of GDP at market prices based on constant local currency. Taken from World Bank CD, 1999.

5.4.2. Learning Model

As usual, I model politicians' behavior as rational learners. Starting with some prior beliefs[17] about growth outcomes attached to the respective status of privatization and non-privatization (see Appendix A. I), new information is produced every year. Prior beliefs are updated and choices are made on the basis of posterior beliefs. As a proxy for similarity of conditions, information has been structured at the level of own, regional and world experience[18].

Once more, the greater the posterior beliefs about average growth privatizing with respect to no privatization, the more likely a switch to denationalization. When results under the same policy vary a lot across time and space, the perception that policy is not responsible for the observed outcomes makes sense. Under the assumption that politicians dislike uncertainty, that is, that they are risk averse, the higher the variability of results under privatization, the less likely a switch to that policy.

As I show in table 5.1, it seems that the observed path of privatization choices is positively related to the difference in posterior beliefs about average growth and this at own, regional and world levels. In other words, it cannot be rejected that governments in industrial countries and in Latin America privatized because they learned from own experience with privatization, the experience in their regions and in the world.

Justifying the decision to remain privatizing in terms of learning is more problematic. According to the results, posterior beliefs about average growth do not influence the decision to

[17] In this illustration, the structure of the data is peculiar. Until the mid-1980s, experience with privatization is limited to Great Britain. Hence, not only is the own experience with privatization scant, but also the regional experience and the world experience with privatization is limited. Thus, removal of the influence of priors is problematic.

[18] Note that, with two regions, the world is limited to the other region, that is, the world experience for Latin America is the experience in OECD countries and vice versa.

Table 5.1. Dynamic Probit Model

	Determinants of Privatizing		*Determinants of Remaining Privatizing*		
Dependent V: Privatization	Coefficient	t-test	Coefficient	t-test	Mean
Lagged Status	-1.58***	-6.02	1.48**	2.48	
Own Experience					
Average Results	0.16**	2.35	0.02	0.44	0.50
Variability of Results	0.57	1.43	-0.98*	-1.93	0.11
Regional Experience					
Average Results	0.35***	2.88	0.21	0.70	0.72
Variability of Results	-0.05	-0.18	0.84	1.45	0.45
World Experience					
Average Results	0.19*	1.77	-0.20	-0.95	1.52
Variability of Results	-0.82**	-2.42	-0.97	-1.48	0.20
p-value for F					0.000
Observations					623

*p<.10; **p<.05; ***p<.01; t-tests in parenthesis

	Predicted		
Actual	*0*	*1*	*Total*
0	290	26	316
1	46	261	307
Total	336	287	*623*

continue privatizing. Only risk aversion in relation to own experience matters.

Thus, while learning is a strong predictor of the decision to privatize, it losses all explanatory power when it comes to predicting governments' decision to continue privatizing.

Several explanations could justify this outcome.

First, political results, not economic results, may have motivated governments' decision to continue privatizing.

Recall that the objective of making privatization irreversible entailed curbing the opposition of unions and management in targeted SOEs by giving them a stake in the privatization process. It also entailed giving business and also the ordinary citizen lucrative investment opportunities. This strategy to garner support from the population at large may have created an extensive basis of support that made privatization highly inertial regardless of economic outcomes.

Again, the British case is the quintessential example of policy continuity via the expansion of beneficiaries. Thanks to the privatization of public housing first and public companies after 1983, the number of shareholders almost tripled between 1979 and 1989. By 1989, more than six million British citizens owned shares that had been sold as a result of privatization and close to half of those people were new shareholders (Ikenberry, 1990: 94; Mark, 1993: 38). "By giving tangible benefits to the participants of privatization – Mark argues (p. 53) – the government created a large constituency of various political persuasions that benefited materially from privatization, and thus was opposed to any calls to end this policy (…)".

In France, 13% of the population purchased at least one share. This entailed an increase in the number of shareholders from two million prior to privatization to six million after it. The new group of shareholders was predominantly young, females and middle-class (Suleiman, 127, 131). And in Chile, by 1988, 170,000 workers owned about 14% of the SOEs in the process to be privatized. They hardly had any say in the election of members of boards but, according to Sigmund, "politically [privatization] (…)

created a new group that [was] likely to oppose future nationalizations" (1990: 361).

In countries where building "popular capitalism" was not the main drive to privatize, governments equally took pains to build broad coalitions of support in favor of privatization.

In Argentina, Carlos Menem faced only partial opposition to his privatization program. He established a solid bond with large business conglomerates, for whom privatization entailed golden opportunities. Political rivals were divided and bewildered and so was the trade union movement. With the latter, Menem played a carrot-and-stick strategy. The stick was the tough anti-strike legislation he introduced by decree. The carrot was the benefits he granted to cooperative union members, among them, the right of ownership of the stock (up to 10% of the total) in privatizations affecting large SOEs and the possibility unions were given to set up their own companies to manage the transferred shares.

Likewise, in Brazil, president Cardoso employed a coalition-building strategy to generate consensus in favor of his privatization program among socioeconomic elites, the government bureaucracy, the Congress and the average citizen. There was a considerable number of SOEs employees co-opted through stock option deals, which increased the support for the program (Manzetti, 1999: 195-198).

In Peru, Fujimori announced a Popular Participation Program to allow the middle and low-income people to become shareholders. However, the program was only introduced in 1996 and it had little repercussion. The President also made privatization appealing by earmarking privatization revenues to combat poverty and build public infrastructure. And in Mexico, President Salinas de Gortari earmarked a substantial and fixed percentage of the revenue of privatization to expenditures on a social program directly administered by him. This policy proved to be very popular (Bresser et. al, 1993).

Thus, governments seek support for privatization by extending its benefits to a broad coalition that includes business, labor and the population at large. In this sense, privatization is different from

other policy reforms such as Central Bank Independence or Trade Liberalization. Neither are the benefits of the latter so tangible nor the set of potential immediate beneficiaries so broad.

Second, economic results may motivate governments' decision to continue privatizing; but it is not growth outcomes what governments care about. In evaluating privatization, governments may pay attention to other economic variables such as the public deficit or domestic and foreign debts.

And third, it may be the case that governments' decision to continue privatizing is related to the impact of this policy on growth. However, particular policy ideas may influence the way in which outcomes are evaluated. In particular, governments may believe that the impact of privatization on the efficiency of targeted firms and the impact of more efficient firms on growth are subject to delays. Hence, governments may not update their beliefs as Bayesian learners because particular ideas alter the way in which available experience is processed.

5.5. Conclusions

According to Starr (1990), the recent wave of privatization discloses a failure of social theory. No social scientist could anticipate the dramatic reversal of the post-war consensus, which was globally shared. The substitution of "marketization" for "statism" brought about a change in policy instruments of similar magnitude. Nationalization constituted the cornerstone of statism as much as privatization is the hallmark of market orientation. I discussed the economic and political reasons for this dramatic swing and explored the plausibility of the hypothesis of learning.

The decision to privatize is explained in terms of a host of economic reasons that do not stand a close theoretical or empirical scrutiny. The efficiency gains of privatization have been overemphasized in theory and unobserved in practice. Also, although privatization is taken to imply a clear withdrawal of the state, the role of the latter continues to be essential in creating a

competitive environment before privatizing and in regulating the activities of privatized firms that do not operate in competitive sectors.

The balance between pragmatism and politics in the decision to privatize exhibits a striking variation. This variance is hardly illuminating to explain an otherwise global trend. In the pool of privatizers, one can find ideologues, pragmatics and opportunists, together, in isolation and in varying degrees. Recent empirical research has shown that, when explaining privatization, diffusion effects clearly outstrip domestic economic and political factors, at least in the developing world. Diffusion may be caused by different mechanisms. Learning is one of them.

I modeled the decision to privatize as one inspired by the pioneering and influential British case. According to the results of the estimation, learning cannot be rejected as a plausible story of the decision to privatize. Governments in Latin America and in the OECD region have learned from their own experience, the experience in their regions and in the world.

However, learning cannot explain why governments persist privatizing.

Politics seems to be a powerful motivation in the decision to continue privatizing. In some cases, the deliberate desire to build popular capitalism and in other cases, the need to curb opposition against privatization has implied the extension of tangible benefits to broad sectors of the population. This extensive basis of support may have entailed that economic outcomes became secondary in the evaluation of privatization, hence making experience irrelevant in governments' decision to continue privatizing.

Alternatively, the mechanism of policy continuity may be ideational. Governments may care about results but, due to the preeminence of particular policy ideas, they may process experience in ways that depart from Bayesian rationality.

Since this is the topic of the last Chapter, I do not delve into it here.

Appendix A. I

Table 5.2. Prior Beliefs

Year	*Privatizing*			*Non-Privatizing*		
	Mean	*DofFP*	*SofSP*	*Mean*	*DofFP*	*SofSP*
	Mean			Mean		
1980	2,75	39	1295	3,53	39	1295
1979	-1,64	16	168	2,55	16	168

Note: Since only one case existed in the database, priors under privatization have been attributed the same uncertainty as priors under no privatization.

Appendix A. II

Table 5.3. Countries, Year of Entrance and Exit

Region	*Year Beginning*	*Year Ending*	*Spells of Privatization*	
OECD				
Canada	1980	1997	1985	1997
Japan	1980	1997	1986	1988
			1993	1994
			1996	1997
South Korea	1980	1997	1993	1996
Austria	1980	1997	1987	1997
Belgium	1980	1997	1991	1997
Denmark	1980	1997	1993	1997
Finland	1980	1997	1988	1989
			1993	1997
France	1980	1997	1986	1997
Germany	1980	1997	1986	1997
Greece	1980	1996	1991	1993
Hungary	1980	1997	1996	1996
Iceland	1980	1996	1989	1997
Ireland	1980	1997	1992	1993
Italy	1980	1997	1992	1996
The Netherlands	1980	1997	1984	1989
			1991	1997

Region	*Year Beginning*	*Year Ending*	*Spells of Privatization*	
Norway	1980	1997	1990	1990
			1993	1996
Poland	1981	1997	1990	1997
Portugal	1980	1997	1990	1997
Spain	1980	1997	1988	1997
Sweden	1980	1997	1992	1997
Turkey	1980	1997	1988	1997
UK	1980	1997	1980	1997
New Zealand	1980	1997	1987	1997
LATIN AM				
CR	1980	1997	1988	1988
			1991	1991
			1993	1995
Honduras	1980	1997	1988	1995
Jamaica	1980	1997	1986	1997
Mexico	1980	1997	1988	1997
Nicaragua	1980	1996	1990	1996
Panama	1980	1996	1990	1996
Argentina	1980	1997	1990	1997
Bolivia	1981	1997	1992	1993
			1995	1997
Brazil	1980	1997	1990	1997
Chile	1980	1997	1985	1997
Colombia	1980	1997	1991	1994
			1996	1997
Peru	1980	1997	1991	1997
Uruguay	1980	1997	1990	1990
			1993	1995
Venezuela	1980	1997	1990	1997

CHAPTER VI

LEARNING AND IMF AGREEMENTS

6.1. Introduction

In this chapter, I explore whether governments have entered into agreements with the International Monetary Fund (IMF) as a result of learning.

The standard view of IMF activities is the following: countries confronting balance of payments problems can weather them by resorting to IMF loans. Since the existence of a lender of last resort may create moral hazard problems, the Fund exchanges loans for conditions. Conditionality entails several austerity measures aimed at removing basic macroeconomic imbalances (stabilization) and at creating the conditions for sustainable growth (adjustment). Tipically, these measures imply fiscal austerity (cutting government services and increasing taxes), a tight monetary policy (raising interest rates and reducing credit creation) and currency devaluation (Taylor, 1993: 41-2)[1].

Since these measures are unpopular, it is assumed that governments turn to the IMF only when they need it, that is, only

[1] According to Guitian (1995: 812) "there are significant areas of common ground between this economic policy consensus [the Washington Consensus] and the policy framework underpinning IMF conditionality practices, both in concept and in practice".

when they face acute balance of payments crisis (BoP) or when they run out of foreign reserves. Yet, a closer look shows that governments may turn to the IMF even if, by those criteria, they do not need it. I review the reasons for this behavior.

The application of the Bayesian learning model to the IMF illustration provides a distinctive result: governments seem to have been risk-prone in their decision to enter into agreements with the IMF.

There are at least two reasons that could justify this behavior. For one, governments may have observed the miraculous performance of particular countries that achieved high rates of growth under agreements. Chile and South Korea are just two examples. For two, governments may have acted according to the predictions of Prospect Theory, that is, showing a risk prone behavior when confronted to the prospect of big losses. After all, no country in a buoyant economic situation has ever turned to the IMF. And even if the state of the external accounts does not justify signing an agreement, countries may face other economic problems and see in IMF conditionality the way to solve them.

This chapter proceeds as follows. In section 6.2., I review the causes of IMF agreements. In section 6.3, I explore their consequences. In section 6.4, I present the learning model. I conclude in section 6.5.

6.2. Explaining IMF Agreements[2]

The question as to why governments enter into agreements with the IMF is not obvious. The policies they entail are unpopular. Not only do governments usually face the accusation of selling-out to international powers. Also, the programs typically entail austerity measures, which have a severe impact on labor and the poor.

[2] Unless otherwise stated, this section and section 6.3 are based on Vreeland (2000).

Most empirical research on the determinants of program participation has focused on economic factors only. The standard explanation for the decision to enter into agreements with the IMF is that governments sign amidst severe BoP deficits. But research on the impact of this factor on the decision to sign is inconclusive. The same disagreement exists regarding the role of inflation and the terms of trade in determining participation. However, it seems that high debt and high public deficits make IMF agreements more likely. The same happens with low levels of development, an overvalued exchange rate and low reserves[3].

Economists' stories of IMF participation have generally disregarded the role of political factors. Only the impact of past participation on IMF agreements has been considered; but the effect of this variable on the probability of signing also remains contradictory.

It is clear that a purely economic explanation cannot account for the fact that not all countries that need foreign reserves turn to the IMF. In turn, countries with a sound balance of payments and no need of currency have entered into agreements[4]. For instance, Nigeria faced its worst economic crisis ever in 1983. This crisis persisted for three years more, but only in 1987 did the government turn to the IMF. Contrary to this case, countries like Uruguay, Turkey or Portugal signed agreements despite not needing currency. According to Vreeland, the former are "victims without a program" while the latter are "non-victims with a program".

The cluster of "victims without a program" reveals that governments in need of a loan may not seek an agreement if sovereignty costs are high and if elections are close. Sovereignty costs are high when a country has no previous history of IMF

[3] See Vreeland, pp. 19-21 for references.

[4] Vreeland's criterion of need is having foreign reserves of less than 2.4 times monthly imports. This cutoff point is the average level of reserves of reserves of countries participating in agreements in his data (p. 45). In his data, there is 40% of countries with high reserves and an agreement and low reserves without an agreement.

agreements. Also, they are higher the lower the number of countries that are under agreements at a particular point in time. Finally, since conditionality implies austerity, governments minimize the political risks of seeking the IMF taking advantage of honeymoons, hence, approaching the IMF at the beginning of their mandates.

The "non-victims with a program" illuminate other interesting political aspects of the decision to sign agreements. Sometimes currency is not needed, but unpopular measures want to be adopted - particularly, a cut in government expenses - amidst domestic political opposition. One way to overcome resistance is to invoke a third party, an "external villain" to do the "dirty work". Domestic opposition is more likely to compliance with the maneuver the greater the costs of rejecting an IMF program. Typically, rejecting an IMF agreement sends a bad signal to creditors and investors. Domestic opposition may acquiesce to the program precisely to avoid sending that negative signal.

Hence, governments sign agreements when they need resources, when they want conditions or both.

It is startling that hardly any of the factors that induce governments to enter into agreements influence governments' decision to remain under a contract. In fact, only the number of other countries participating seems to be relevant in remaining under agreements. This result could be interpreted as governments remaining under IMF surveillance the lower the sovereignty costs.

Extant explanations for the decision to sign agreements tend to overlook the fact that a contract involves two parties –the Fund and the national government - and that they have different motivations. While countries' motivation results from the plethora of economic needs and political constraints just mentioned, the Fund is constrained by its budget. Its negotiation posture is tougher the tighter its budget constraint. Also, the Fund's posture is more permissive with those countries whose external imbalances may be especially destabilizing for international trade. Finally, since dictatorships' commitment to public opinion is less binding, they seem to be better negotiation partners for the Fund.

Once an agreement has been signed, the only variable the Fund cares about is the magnitude of the BoP.

In sum, the decision to enter into agreements with the IMF involves two parties that confront economic and political constraints. Governments decide to enter into agreements with the IMF when they need it or when they want to adopt some measures but they face domestic obstacles. The decision to sign an agreement is subject to rejection and sovereignty costs.

Also, governments may want to bring the IMF in because their policies enhance growth, even if this happens at the cost of a short-term recession. After all, this is what the logic behind IMF policies entails: swallowing a bitter pill is requisite to resume growth. But, are IMF policies good for growth?

6.3. Consequences of IMF Agreements

When the Fund was created in 1944, it had as its main objective to guarantee the well functioning of a system of fixed-but-adjustable exchange rates as well as to prevent "beggar-thy-neighbor" trade policies and competitive devaluations. Apart from these short-run objectives, the IMF intends to promote growth. In the words of Michel Camdessus "[o]ur primary objective is growth. In my view, there is no longer ambiguity about this. It is toward growth that our programs and their conditionality are aimed" (Przeworski and Vreeland, 2000: 385).

Yet, there is no consensus regarding the impact of programs on growth. Most empirical studies report no effects of IMF on growth and an isolated one reports a worsening in the short run, followed by an improvement thereafter (Conway, 1994).

Regarding other economic variables, some studies report improvements while others report no effects at all on the balance of payments. As for inflation, results vary along the whole spectrum: most studies report no impact and exceptionally, some

reduction in inflation. The same happens with the current account[5].

However, empirical research on the impact of IMF agreements on growth suffered from an important methodological flaw. As explained above, there are particular conditions that influence governments' decision to sign an agreement with the IMF. And since those conditions can actually influence the results of the program, it is necessary to isolate the impact of the program from the impact of the conditions that determine participation. Moreover, selection is caused by observable and unobservable conditions like "political will". Controlling only for observable conditions, as it is the usual procedure, yields biased results.

Using the appropriate statistical tool, Przeworski and Vreeland (2000) found that IMF programs reduce growth rates while countries remain under them and this regardless of whether these countries faced good or bad initial conditions. When countries leave the agreements, they grow faster than under the program but slower than if they had not participated. This result appears unrelated to the length of the spell under contracts. Hence, IMF agreements are not well designed to meet its long-term objective of growth.

The main drawback of IMF programs is that they entail particular conditions but no specification as to how those conditions should be met. For instance, governments are requested to reduce their budget deficits; but it is left to local governments to decide how. Governments may choose to cut public investment or public wages and benefits. But cutting public wages and benefits is clearly more unpopular. Thus, governments generally cut public investment, which hinders long-run growth. Also, a tight monetary policy tipically results in higher interest rates that affect firms in an indiscriminate way. Good firms may shut down along with inefficient ones.

But, if IMF programs do not enhance growth, why do governments enter into agreements?

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[5] See Przeworski and Vreeland (2000: 386) for references

This is an intriguing question and one that Vreeland only conjectures about[6].

For this author, governments may approach the IMF simply seeking short-run financial stability and without concerns about long-term growth. Yet, this argument would only apply to those governments that do face financial constraints. The same author adventures that governments may foresee a crisis and seek the IMF to face the crisis with a scapegoat to blame at. Finally, governments' motives may be more insidious. Luis Pastor found that, from mid 1960s to mid 1980s, IMF agreements decreased the labor share of income in Latin America. One may argue that governments bring the IMF in to redistribute income away from labor.

Still another story of participation could be hidden behind a high number of countries under programs. One may contend that a high number of participants is indicative of a favorable opinion mood regarding IMF policies. Under this interpretation, an increasing participation under IMF programs would be motivated by governments' desire to live up to policies regarded as good. Thus, governments may sign IMF agreements for the sake of reputation. In fact, some governments have outstripped the Fund in the radicalism of the adjustment, apparently attempting to gain favorable international opinion and signal creditworthiness[7].

A different account, and the one I test next, is whether governments want IMF policies because they have learned from the experience under IMF programs.

As I show, the distinctive result the model provides is that governments seem to have been willing to take risks when entering into agreements with the IMF.

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[6] See the author's chapter of conclusions.

[7] I test this story in Chapter VII

6.4. Learning Model

6.4.1. Data

The statistical test of the learning model is based on data from IMF2000 (Vreeland, 2000). This database provides information on IMF agreements for 135 countries between 1951 (or year of independence) and 1990.

There are four types of IMF agreements that differ in their conditions, timing and size of the loan disbursements. These are the Stand-By arrangements, the Extended Fund Facility, the Structural Adjustment Facility and the Enhanced Structural Adjustment Facility.

Stand-by agreements address temporary balance of payments deficits. These agreements, which constitute 88% of total agreements in the database, aim at short-run results, generally within 12 to 18 months. However, the common practice has been to sign consecutive agreements[8]. During the period 1952 and 1990, an average spell under IMF contracts lasted 4.7 years. It lasted 5.3 years between 1971 and 1990.

The dependent variable has been coded 1 if a particular country a particular year had an agreement with the IMF regardless of type of agreement. It has been coded 0 otherwise.

I have limited the scope of my research to 135 countries between 1960 and 1990[9]. For this period, there are a total of 3623 country-year observations of which 1002 are observations under IMF agreements and 2621 are observations not under agreements.

Figure 6.1. shows the proportion of countries under IMF agreements for the period 1960 and 1990. As it is possible to see, this proportion has gradually increased, reaching a peak in 1983, decreasing thereafter and again reaching another peak at the end of

[8] For instance, South Korea spent thirteen years under consecutive agreements, Zaire spent fourteen and Liberia fifteen years. Peru participated eighteen years and Panama twenty. (p. 14).

[9] Prior to 1960, there are only 17 country-year observations under IMF agreements.

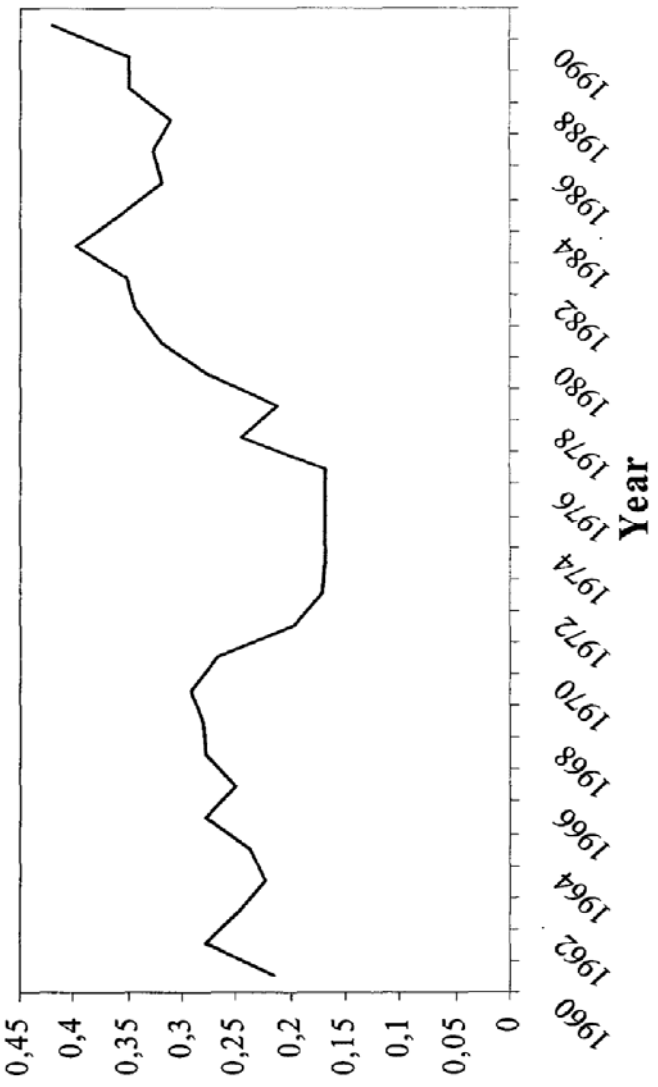

Figure 6.1. Proportion of countries under IMF Agreements (1960-1990)

the decade. Clearly, the jump in participation coincided with the outburst of the debt crisis in 1982.

I have grouped the 135 countries in ten regions[10]. Years of entrance, exit and spells of agreements in the database are provided in Appendix A. II.

Overall rates of growth[11] for countries participating and not participating under IMF agreements are 0.85% and 2.61% respectively. By region, and except for South Asia and East Asia, rates of growth not under IMF agreements have been greater than under IMF contracts[12].

However, learning may be from specific cases instead of average experience. South Korea remained under IMF surveillance between 1965 and 1977 and again between 1980 and 1987. During the first span, the average rate of growth was 8.11%. In 1970, growth reached a peak of 15%. It was 6.07% during the second span. Chile is another emblematic case of success accomplished under the presence of the IMF. Between 1984 and 1990, Chile was under a spell of agreements and growing at an average rate of 4.47%. It grew 9.20% in 1989.

For some governments, the South Korean and Chilean experiences might have been informative that IMF's austerity policies are not incompatible with growth and even that these policies do promote it.

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[10] Africa (1155), South Asia (139), East Asia (98), South East Asia (185), Pacific Islands and Oceania (63), Middle East and North Africa (323), Latin America (558), Caribbean and Non-Iberic America (177), Eastern Europe and Soviet Union (186) and Industrial Countries (739).

[11] Taken from the ACLP Political and Economic Database, 1997. Growth is the annual rate of growth of Real GDP per capita, 1985 international prices, chain index.

[12] In East Asia, greater rates of growth under IMF agreements relate to the South Korean. In South Asia, Bangladesh grew 27.93% in 1974. In 1977, Nepal grew 34.47% and, in 1965, Pakistan grew 18.65%. The three countries were under IMF agreements those years.

6.4 2. Results

In order to test whether learning explains countries' decision to enter into agreements with the IMF, I relate the observed path of agreements with the difference in posterior beliefs about average growth under and not under IMF contracts.

Starting with some prior beliefs (see Appendix A. I), governments update those beliefs with the information provided by participants and non-participants. They compare those posteriors and choose the policy that yields the greatest expected outcome.

As usual, I have structured information at the level of the country, the region and the world. Information is both about average growth and variability of results under alternative status.

Using a dynamic probit model, I estimate the impact of learning on the probability of signing and on the probability of remaining under an IMF agreement.

I expect that the greater the posterior beliefs about growth under IMF participation in comparison to non-participation, the greater the probability of adopting a program. Also, under the assumption that governments are risk-averse, the greater the variability of results being under with respect to not being under a program, the less likely a turn to the IMF.

As table 6.2 shows, governments have entered into agreements with the IMF as a result of learning from own experience and the world experience under alternative policies. Also, and interestingly, governments have been willing to take risks and enter into agreements with the IMF in the view of the experience in the region and in the world.

Regarding permanence under IMF agreements, governments have been willing to take risks and continue under IMF contracts after observing the experience in the world; but the probability of remaining is negatively related to high growth under IMF agreements in the region.

Table 6.1. Average Rates of Growth per Region

Region	*Growth Under*	*N*	*Growth Not Under*	*N*
Africa	-0.60	341	1.57	814
South Asia	2.73*	64	1.33	75
East Asia	6.23*	24	4.78	74
South East Asia	2.39	51	4.66	134
Pacific/ Oceania	-0.42	11	1.31	52
Middle East/ North Africa	2.20	71	3.15	252
Latin America	1.13	290	1.77	268
Caribbean and Non Iberic America	-0.57	70	2.55	107
Easter Europe and Soviet Union	1.77	32	4.07	154
Industrial Countries	2.55	48	3.26	691
Total	0.85	1002	2.61	2621

Table 6.2. Dynamic Probit Model

	Determinants of Signing an Agreement		*Determinants of Remaining Under*		
Dependent V: IMF Agreement	Coefficient	t-test	Coefficient	t-test	Mean
Lagged Status	-1.19***	-11.2	0.72***	5.07	
Own Experience					
Average Results	0.02***	3.09	-0.01	-0.92	-1.82
Variability of Results	-0.02	-0.79	-0.03	-1.19	-0.34
Regional Experience					
Average Results	-0.02	-0.98	-0.08***	-2.64	-1.16
Variability of Results	0.05*	1.72	0.68	1.43	0.11
World Experience					
Average Results	0.21***	2.66	-0.03	-0.37	-1.17
Variability of Results	0.19***	3.32	0.14*	1.91	0.11
p-value for F					0.000
Observat.					3488

*p<.10; **p<.05; ***p<.01; t-tests in parenthesis

	Predicted		
Actual	*0*	*1*	*Total*
0	2344	161	2505
1	195	788	983
Total	2539	949	*3488*

Note that, although the coefficients of own and world experience are not significant, they are also negative. Hence, the probability of remaining under IMF programs is negatively related to growth under these programs. In other words, governments abandon IMF agreements as soon as growth resumes. It seems that being under an IMF agreement is not a situation that governments seek to prolong. Improving rates of growth make agreements economically less needed and politically less justifiable, thus, more costly.

Note as well that, of the six significant results, five refer to regional or world experiences and only one refers to own experience. Also, it is interesting that three significant coefficients refer to attitudes towards risks and that all three coefficients picture governments as willing to take risks. Overall, it seems that the decision to enter into agreements with the IMF has been characterized by a risk prone behavior that I did not find in previous applications of the learning model.

Why this risk-prone behavior?

I hinted at one possible explanation above: even if it seems that IMF programs are not good devices to spur growth, there are emblematic cases of success that achieved outstanding rates of growth under IMF programs. Other governments may have seen these good outcomes and conclude that IMF austerity policies were the secret of their success. Hence, they were willing to run the risk of adopting them.

Another explanation has to do with governments' willingness to run risks when confronted with very bad economic prospects (Kahneman and Tversky, 1997). In fact, the BoP and the state of the foreign reserves may be too strict a criterion of program participation. Confronted with an *overall* deteriorating economic situation, governments enter the domain of losses and make the risky choice to adjust. When governments cannot reform at their own initiative, they bring the IMF in.

For example, according to Vreeland (2000), Uruguay epitomizes the case of a "non-victim with a program". When in 1990 President Lacalle signed an agreement, the country was in no

need of foreign currency. Foreign reserves amounted to 7.7 times the average monthly import requirements, doubling the average amount of the region. The BoP and the current account were in surplus.

But there were other problems. Inflation had reached 112.5% in 1990. In 1989, foreign debt was rising again after a peak in 1985 (89.7% of GNP) and the public deficit showed its highest figure since 1984. Also, rates of growth had been negative in 1988 and 1989. In 1989, they reached their lowest level since 1984. Moreover, although the level of foreign reserves was higher than in the region, reserves had been declining since 1987. Hence, by quite a few economic standards, Uruguay was a "victim". Confronted with a latent crisis and gloomy prospects, a "reform-oriented" government with hardly a mandate for reform took the risk to bring the IMF in to have the reforms he wanted imposed upon the country.

Portugal is another case of "non-victim with a program". The Portuguese government signed an agreement in 1977 having a strong reserve position. But as Vreeland acknowledges, the current account was negative the three preceding years and the year of the agreement. Hence "a need for reserves was at least developing before the government turned to the Fund" (p. 84). This was not the only problem. Inflation had reached 27,96% in 1974. It declined in 1975 and 1976 but it increased to 27,11% in 1977. In 1984, inflation reached a peak going up to 29,3%. Precisely that same year and despite having extremely high reserves, Portugal was under an IMF agreement.

The Uruguayan and Portuguese cases show that a static picture of the external accounts is only a partial indicator of the need of reform. Other economic indicators may confront governments with the prospect of big losses and cause a shift in their willingness to take risks and adopt austerity measures.

It is true that not all countries facing bad economic conditions turn to the IMF. Sometimes they delayed the adjustment and sometimes the "victims without a program" introduced austerity

measures at their own initiative[13]. But it is also true that all countries that turn to the IMF seem to have something in common: they did not face good economic prospects even if a one shot look at their external accounts indicates the opposite.

It is not incidental that the upsurge in IMF participation coincided with the debt crisis. With the end of private lending in 1982, countries became more dependent on the IMF to reschedule their debts and get new loans. Also, as figure 6.2. shows, the debt crisis inaugurated a period of global economic stagnation that reached troughs in 1982 and 1983. In regions like Latin America, the recession was dramatic.

As reflected in pervasive negative rates of growth, many countries were confronted with the prospects of big losses. And even if about 20% of participants in agreements those years do not qualify as "victims" by the reserves criterion, it seems that the crisis was deep enough as to cause a change in attitudes towards risks. This is the outcome of the learning model.

6.5. Conclusions

IMF agreements are politically costly. They entail unpopular measures and are often viewed as a concession of national sovereignty. Therefore, they are highly visible and costly measures. Since IMF programs do not promote growth, the question emerges as to why governments sign contracts.

The decision to enter into agreements with the IMF is motivated by economic and political factors. From an economic point of view, balance of payments deficits, low reserves and high public deficits prompt governments to turn to the IMF. From a political point of view, proximity of elections, high sovereignty costs and low rejection costs deter governments from signing.

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[13] For instance, when Nigeria finally entered into an agreement in 1987, the Fund was willing to sign because the country had already accomplished most of the conditions *ex-ante* (Vreeland, 1997)

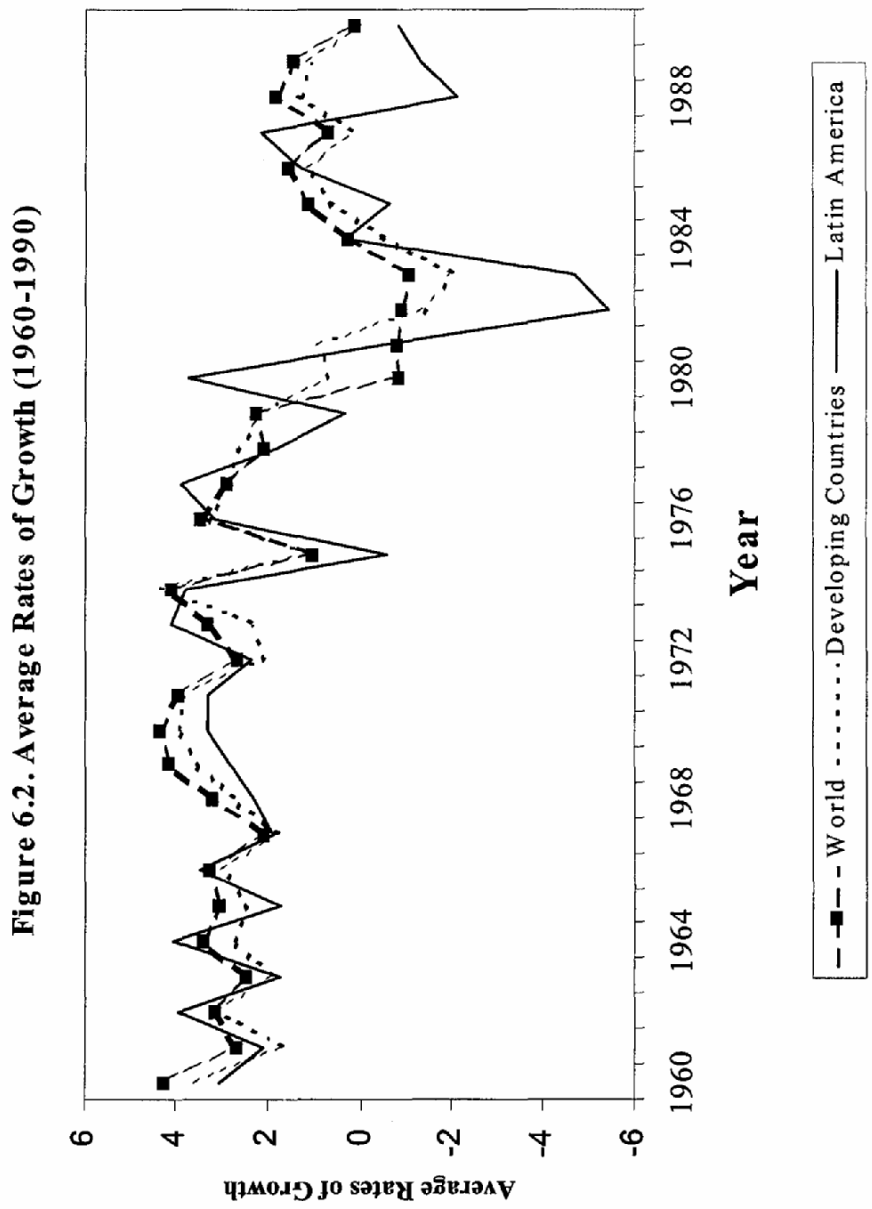


Figure 6.2. Average Rates of Growth (1960-1990)
Average Rates of Growth
6
4
2
0
-2
-4
-6
1960
1964
1968
1972
1976
1980
1984
1988
Year
World
Developing Countries
Latin America

It is possible to tell a story of participation by playing with these variables. Governments may need currency but face high sovereignty costs, which prevent agreements. Governments may not need currency but want to curb their public deficits. In order to overcome domestic opposition to austerity measures, they bring the IMF in. The rationale is to make opposition acquiesce to avoid sending a negative signal to creditors and investors.

An alternative story of participation is that governments have entered into agreements with the IMF as a result of learning from the experience with and without IMF agreements.

The application of the learning model to this illustration provided two distinctive results. One, governments exhibit a risk-prone behavior in the decision to enter into agreements with the IMF. And two, governments are less likely to remain under an IMF program the better it performs. These two results characterize IMF agreements as an emergency and exceptional policy.

The pattern of IMF agreements shows that the upsurge in IMF participation coincided with the worst economic recession since the 1930s. Confronted with the prospect of big losses, governments' attitudes toward risk changed radically. It seems that governments seek the IMF in situations of deep economic disarray or in anticipation of those situations. Even if governments do not need loans, they may judge that economic reforms are needed as reflected in other economic indicators.

Also, according to the results of the model, it seems that once the sense of looming catastrophe disappears in the region a country belongs to, governments abandon the programs. This is also indicated by the negative (but not significant) coefficients of own and world experience. Hence, being under an IMF agreement is not a situation that governments seek to prolong.

Appendix A. I.

Table 6.3. Prior Beliefs.

	Priors IMF Under			*Priors IMF not Under*		
Year	*Mean*	*DofFU*	*SofSU*	*Mean*	*DofFN*	*SofSN*
1960	-0,95	17	195	3,74	22	360
1961	3,19	34	960	4,57	26	528
1962	1,87	18	224	3	36	1088
1963	3,32	29	675	3,05	46	1848
1964	2,24	25	483	2,5	35	1023
1965	3,33	76	5328	3,42	38	1224
1966	0,75	49	2115	3,94	30	728
1968	1,68	21	323	2,23	31	783
1970	2,35	26	528	4,89	38	1224
1971	4,39	55	2703	4,37	60	3248
1974	3,86	49	2115	3,15	42	1520
1975	4,05	43	1599	4,12	62	3480
1976	0,88	70	4488	1,05	64	3720
1977	1,29	32	840	3,88	48	2024
1978	1,03	73	4899	3,5	39	1295
1980	-0,24	64	3720	3,23	42	1520
1981	-0,95	48	2024	1,68	66	3968
1984	-2,31	46	1848	-0,16	41	1443
1985	-1,59	80	5928	1,35	35	1023

Appendix A. II.

Table 6.4

Country	*Years in Sample*		*Spell of Agreements*	
Algeria	1962	1990	1989	1990
Angola	1975	1989	Never Under	
Benin	1960	1990	1989	1990
Botswana	1966	1989	Never Under	
Burkina Faso	1960	1990	Never Under	
Burundi	1962	1990	1965	1971
			1976	1977
			1986	1989
Cameroon	1961	1990	1988	1990
Cape Verde	1975	1990	Never Under	
Central African Rep	1961	1990	1980	1981
			1983	1990
Chad	1961	1990	1987	1990
Comoro Island	1975	1990	Never Under	
Congo	1961	1990	1967	1968
			1977	1977
			1979	1980
			1986	1988
			1990	1990
Djibouti	1977	1987	Never Under	
Egypt	1960	1990	1977	1981
			1987	1988
Ethiopia	1960	1986	1981	1982
Gabon	1961	1990	1978	1982
			1986	1990
Gambia	1965	1990	1977	1980
			1982	1990
Ghana	1960	1990	1966	1970
			1979	1980
			1983	1985
			1987	1990

Country	*Years in Sample*		*Spell of Agreements*	
Guinea	1960	1990	1982	1983
			1986	1990
Guinea-Bisau	1974	1990	1987	1990
Ivory Coast	1961	1990	1981	1990
Kenya	1963	1990	1975	1986
			1988	1990
Lesotho	1966	1990	1988	1990
			1963	1977
			1979	1986
Madagascar	1961	1990	1977	1978
			1980	1990
Malawi	1964	1990	1979	1986
			1988	1990
Mali	1961	1990	1964	1965
			1967	1972
			1982	1990
Mauritania	1961	1990	1977	1978
			1980	1982
			1985	1990
Mauritius	1968	1990	1979	1986
Morocco	1960	1990	1960	1960
			1965	1972
			1980	1990
Mozambique	1975	1990	1987	1990
Niger	1961	1989	1983	1989
Nigeria	1960	1990	1987	1990
Rwanda	1962	1990	1966	1970
			1979	1980
Senegal	1961	1990	1979	1990
Seychelle	1976	1990	Never Under	
Sierra Leone	1962	1990	1966	1967
			1969	1970
			1977	1982
			1984	1989
Somalia	1961	1989	1964	1971

Country	*Years in Sample*		*Spell of Agreements*	
			1980	1989
South Africa	1960	1990	1958	1959
			1961	1962
			1976	1977
			1982	1983
Sudan	1971	1990	1972	1975
			1979	1985
Swaziland	1968	1989	Never Under	
Tanzania	1961	1988	1975	1976
			1980	1982
			1986	1988
Togo	1961	1990	1979	1990
Tunisia	1961	1990	1964	1970
			1986	1990
Uganda	1962	1990	1971	1972
			1980	1984
			1987	1990
Zaire	1960	1989	1976	1989
Zambia	1964	1990	1973	1974
			1976	1987
Zimbabwe	1965	1990	1981	1984
Bahamas	1978	1987	Never Under	
Barbados	1966	1989	1982	1984
Belize	1981	1990	1984	1986
Canada	1960	1990	Never Under	
Costa Rica	1960	1990	1980	1990
Dominican Republic	1960	1990	1964	1965
			1983	1986
El Salvador	1960	1990	1960	1973
			1980	1983
			1990	1990
Grenada	1985	1990	Never Under	
Guatemala	1960	1990	1960	1962
			1966	1973
			1981	1984

Country	*Years in Sample*		*Spell of Agreements*	
			1988	1990
Haiti	1961	1989	1961	1967
			1970	1989
Honduras	1960	1990	1960	1966
			1968	1973
			1979	1983
			1990	1990
Jamaica	1962	1990	1963	1964
			1973	1974
			1977	1990
Mexico	1960	1990	1961	1962
			1977	1979
			1983	1990
Nicaragua	1960	1990	1963	1965
			1968	1973
			1979	1979
Panama	1960	1990	1965	1966
			1968	1987
Trinidad & Tobago	1962	1990	1989	1990
USA	1960	1990	1963	1965
Argentina	1960	1990	1960	1963
			1967	1969
			1976	1977
			1983	1990
Bolivia	1960	1990	1960	1970
			1973	1974
			1980	1981
			1986	1990
Brazil	1960	1990	1961	1962
			1965	1973
			1983	1986
			1988	1990
Chile	1960	1990	1961	1970
			1974	1976
			1983	1990

Country	*Years in Sample*		*Spell of Agreements*	
Colombia	1960	1990	1960	1974
Ecuador	1960	1990	1960	1974
Guyana	1966	1990	1967	1982
			1990	1990
Paraguay	1960	1990	1960	1969
Peru	1960	1990	1960	1971
			1977	1980
			1982	1985
Suriname	1975	1989	Never Under	
Uruguay	1960	1990	1961	1963
			1966	1973
			1975	1987
			1990	1990
Venezuela	1960	1990	1960	1961
			1989	1990
Bangladesh	1971	1990	1974	1976
			1979	1983
			1985	1990
China	1961	1990	1981	1981
			1986	1987
India	1960	1990	1962	1966
			1981	1984
Indonesia	1961	1990	1961	1964
			1968	1974
Iran	1960	1990	1956	1956
			1960	1962
Iraq	1960	1987	Never Under	
Israel	1960	1990	1974	1977
Japan	1960	1990	1962	1965
Jordan	1960	1990	1989	1990
South Korea	1960	1990	1965	1977
			1980	1987
Laos	1985	1990	1989	1990
Malaysia	1960	1990	Never Under	
Mongolia	1985	1990	Never Under	

Country	*Years in Sample*		*Spell of Agreements*	
Myanmar	1960	1989	1969	1970
			1973	1975
			1977	1979
			1981	1982
Nepal	1961	1986	1976	1977
			1985	1986
Pakistan	1960	1990	1965	1966
			1968	1969
			1972	1975
			1977	1978
			1980	1983
			1988	1990
Philippines	1960	1990	1962	1965
			1973	1981
			1983	1990
Singapore	1965	1990	Never Under	
Sri Lanka	1960	1990	1965	1972
			1974	1975
			1977	1981
			1983	1984
			1988	1990
Syria	1961	1990	1962	1962
			1964	1964
Taiwan	1960	1990	Never Under	
Thailand	1960	1990	1978	1979
			1981	1983
			1985	1986
Yemen Arab Rep	1970	1989	Never Under	
Austria	1960	1990	Never Under	
Belgium	1960	1990	Never Under	
Bulgaria	1981	1990	Never Under	
Czechoslovakia	1961	1990	Never Under	
Denmark	1960	1990	Never Under	
Finland	1960	1990	1967	1968
			1975	1976

Country	*Years in Sample*		*Spell of Agreements*	
France	1960	1990	1969	1970
Germany	1960	1990	Never Under	
East Germany	1971	1988	Never Under	
Greece	1960	1990	Never Under	
Hungary	1971	1990	1982	1985
			1988	1990
Iceland	1960	1990	1960	1963
Ireland	1960	1990	Never Under	
Italy	1960	1990	1974	1975
			1977	1978
Luxembourg	1960	1990	Never Under	
Malta	1964	1989	Never Under	
Netherlands	1960	1990	Never Under	
Norway	1960	1990	Never Under	
Poland	1971	1990	1990	1990
Portugal	1960	1990	1977	1979
			1983	1985
Romania	1961	1989	1975	1978
			1981	1984
Spain	1960	1990	1960	1961
			1978	1979
Sweden	1960	1990	Never Under	
Switzerland	1960	1990	Never Under	
Turkey	1960	1990	1961	1971
			1978	1985
UK	1960	1990	1961	1965
			1967	1970
			1975	1979
USSR	1961	1989	Never Under	
Yugoslavia	1961	1990	1961	1961
			1965	1967
			1971	1986
			1988	1990
Australia	1960	1990	1961	1961
Fiji	1970	1990	1974	1975

Country	*Years in Sample*		*Spell of Agreements*	
New Zealand	1960	1990	1967	1968
Papua New Guinea	1975	1990	1990	1990
Solomon Islands	1981	1988	1981	1984
Vanuatu	1984	1990	Never Under	
Western Samoa	1980	1990	1980	1980
			1983	1985

CHAPTER VII

LEARNING AND ALTERNATIVE HYPOTHESIS

7.1. Introduction

In previous chapters, I tested the hypothesis that learning from experience drives the choice of policies using the decision to grant independence to Central Banks, to liberalize trade, to privatize, and to enter into agreements with the IMF as illustrations. This exercise has generated a considerable amount of lessons about learning. I summarize and discuss them in the first section of this chapter.

Learning is just one mechanism to explain policy convergence. Two other alternative hypotheses contend that convergence in the 1980s and 1990s has been the result of imposition and emulation. Another alternative explanation holds that convergence is an expression of the power of ideas.

Imposition refers to the role of direct external pressure to pursue particular policies. This mechanism is epitomized by the leverage exerted by International Financial Institutions (IFIs) through conditionality. IFIs exchange policies for loans, hence "forcing" countries to endorse their view of "good economics". Under this account, governments would have stabilized their

economies because they were given no option. As I have already explained, this argument has its nuances. Imposition is sometimes persuasion, the interests of IFIs and governments are frequently aligned and, in sum, conditionality may coincide with governments' agendas (Kahler, 1992; Stallings, 1992; Vreeland, 2000).

Alternatively, policies may converge as a result of emulation. Countries engage in the same policies that others do without assessing the experience under them. There are several motives for copying others. For one, governments uncertain of what course of action to follow may imitate the policies of countries with which they share the same historical, cultural and social background (Brune and Garrett, 2000; Simmon and Elkins, 2000). Two, governments may copy the policies of their direct competitors (Simmons and Elkins, 2000; Ikenberry, 1990.). Three, for the sake of reputation and credibility, governments may imitate the policies generally acclaimed as successes. This may in turn provide leverage with international creditors (Maxfield, 1997) and with the electorate. Copying policies broadly endorsed elsewhere provides arguments for governments committed to unpopular but "good" policies as much as it deprives political adversaries of arguments to oppose them.

Finally, a story about the power of ideas contends that economic blueprints, like meteorites (Hood, 1994), hit the system, and turn out to be so self-explanatory as to provoke a fast and massive conversion to them. The Washington Consensus, which inspired the wave of reforms analyzed here, would be one of those meteorites. Note that while learning, imposition and emulation of policies would imply a gradual path of policy convergence, this strong version of the power-of-ideas would entail simultaneous and radical switches.

The hypothesis of learning as well as the alternative hypothesis of imposition and emulation can be explicitly tested. I treat the power-of-ideas argument as an implicit alternative hypothesis to be assessed by default.

This chapter proceeds as follows. In section 7.2, I summarize and discuss the results of the learning models as applied to the four policies studied above. In section 7.3, I test the alternative hypothesis of imposition and emulation. I conclude in section 7.4, evaluating the plausibility of the background argument of the power of ideas.

7.2. Lessons about learning

This research started out with the widespread claim that, in the 1980s and 1990s, economic policies have converged and with the untested contention that convergence has been caused by learning. An operational concept – Bayesian learning – has been introduced that precisely allowed testing that contention.

The hypothesis is that politicians act as rational learners, that is, that they make use of all available information when it comes to granting independence to Central Banks, to liberalizing trade, to privatizing and to entering into agreements with the IMF. Governments have some prior beliefs about the expected growth performance that would follow the application of these policies. Countries engage in those policies (or not), which constantly gives information about outcomes. Governments observe those outcomes and update their prior beliefs with that information. Also, governments choose at all times the policies that are expected to yield the best results according to updated beliefs. Finally, remaining under market-oriented policies is also a function of learning.

Governments learn both from average results and from the variability of those results under alternative policies. If governments observe that results under the same policy vary a lot, they are likely to conclude that policies are not responsible for observed outcomes. A high variability of results points at underlying conditions, not policies, as the determinants of outcomes.

Finally, I tested whether governments discriminate among sources of information on the basis of proximity. One can take the influence of proximity into account by structuring average results at three levels: own, regional and world results. The hypothesis is that noise increases with distance or, in other words, that proximity entails a greater similarity in conditions. Hence, governments learn more from own experience and from the experience of neighboring countries.

Moreover, I tested whether governments learn from miraculous performances instead of learning from average results. Even the average experience of countries in the same region may be so noisy as to hardly reveal any information about policies. When that is the case, governments may learn from very good performers instead of learning from average results. For instance, according to Ramamurti (1999: 47), a close "miracle" constitutes the most relevant source of lessons. Discussing why privatization has been slow in Sub-Saharan Africa, the author asserted that "[p]rivatization cannot gain momentum until a cross-section of national opinion leaders is convinced that it will work in the local context. That, in turn, has to grow out of a country's local experience with privatization or with demonstrable successes in neighboring countries". He adds, "I doubt that officials in sub-Saharan Africa will be sold on privatization just because it seems to have worked well in Argentina or Malaysia".

The Central Bank Independence learning model was run on sixty-six developed and developing countries grouped in seven regions and for the period 1952-1990 (Chapter III). The trade liberalization illustration focused on fifty-one developing countries grouped in four regions between 1964 and 1990 (Chapter IV). The privatization learning model was run on thirty-seven Latin American and Industrial countries in the period 1980 through 1997 (Chapter V). Finally, the IMF illustration comprised 135 developed and developing countries grouped in ten regions between 1960 and 1990 (Chapter VI).

These illustrations exhibit interesting differences. The first one is in the pattern of diffusion.

Figure 7.1. shows that convergence – an increase overtime in the proportion of countries endorsing a particular policy - has been undeniable in privatization and trade liberalization. The trend is somewhat less steady for IMF agreements, for which periods of convergence appear to have been concentrated around particular moments. Finally, at least in the period under scrutiny, there is no evidence that countries have converged in granting independence to Central Banks.

These policies vary along other lines. For example, CBI, trade liberalization and privatization can be characterized as "normal" policies as opposed to IMF agreements, which could be better described as "exceptional" economics. Normal and exceptional policies differ in at least two dimensions: their expected duration and the timing of expected results[1]. CBI, trade liberalization and privatization have frequently been undertaken at governments' own initiative as part of long-term projects of economic transformation that are meant to endure. The belief that results will be ripped some time in the future is central to these policies. However, IMF agreements are generally regarded as transitory and, at least in their stabilization version[2], they aim at relatively quick results (in one or two years). Also, IMF agreements are highly visible and their adoption entails greater sovereignty costs.

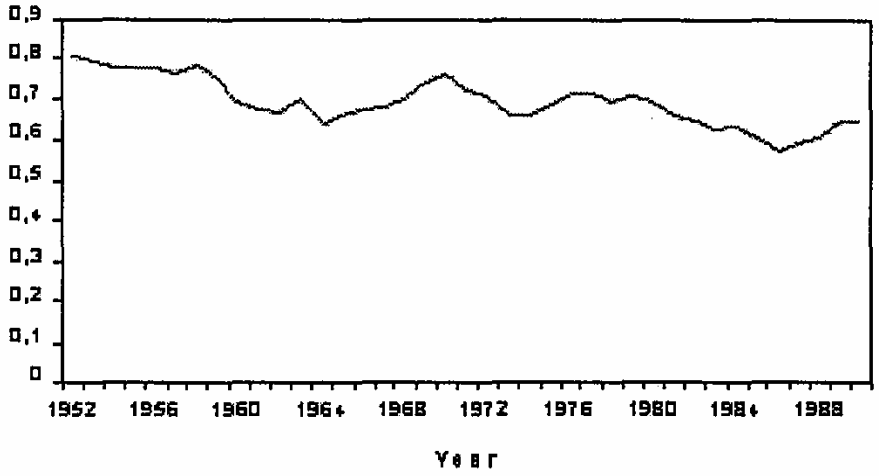
These contrasting features have implications for the way in which experience under alternative policies is evaluated. Together with the pattern of diffusion depicted in figure 7.1., these features help to understand the results of the empirical tests of learning.

[1] See Chapter I for a discussion on the dichotomy structural vs. stabilization policies and the overarching concept of adjustment.

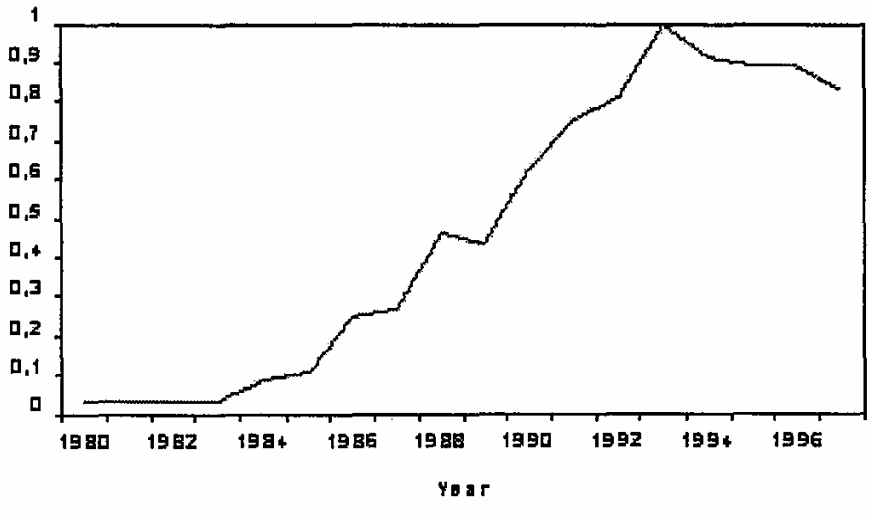
[2] Recall that 88% of agreements in the database are Stand-By agreements.

Figure 7.1. Convergence in Policy Choices

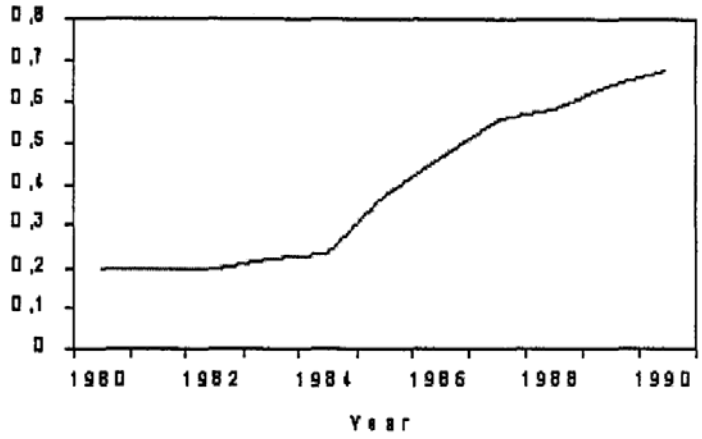
Proportion of countries with Independent Central Banks (1952-1990)



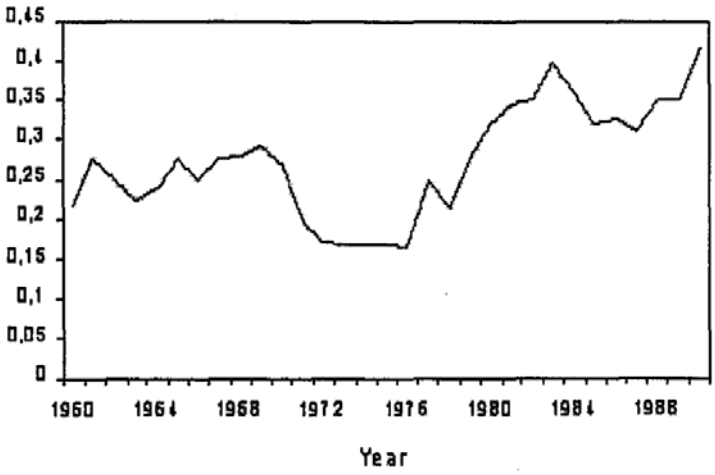
Proportion of Privatizers (1980-1997)



Proportion of Trade liberalization, 1980-1990.



Proportion of IMF Agreements, 1960-1990



The main results are summarized in table 7.1.

Table 7.1. Summary of Results

	Learning	
Convergence	*Yes*	*No*
Yes	Trade Liberalization *(variance)* Privatization *(average)* IMF Agreements *(average and variance)*	
No		CBI

As it is possible to see, learning explains switches to policies that converged (trade liberalization, privatization and IMF agreements). However, learning could not explain the decision to grant independence to CBs, a policy that did not converge overtime.

Regarding the policies that converged, governments learned from average experience in their decision to privatize. They learned from the variability of results in the case of trade liberalization and they learned both from average experience and from the variability of experience in their decision to enter into agreements with the IMF.

Table 7.2. gives all the results of the learning model as applied to the decision to switch for the four policy choices.

This table shows that the power of learning varies across policies (results differ by rows) but it is consistent within policies (results are coherent by columns). In other words, own, regional and world experiences, when significant, operate in the same direction. Governments have been consistently risk averse in their decisions to liberalize trade, they have consistently learned from average results when privatizing and they have been consistently risk-prone to enter into agreements with the IMF.

Table 7.2. Dynamic Probit Test. Probability of Transitions to several policies

Dependent V=Policy	*CBI*	*Export Orientation.*	*Privatization*	*IMF Agreements*
Lagged Policy	-1.27***	-3.96***	-1.58***	-1.19***
	(-10.22)	(-5.69)	(-6.02)	(-11.20)
Own Experience				
Average Results	-0.01	0.04	0.16**	0.02***
	(-0.51)	(1.04)	(2.35)	(3.09)
Variability of Results	-0.09**	-0.10*	0.57	-0.02
	(-2.04)	(-1.94)	(1.43)	(-0.79)
Regional Experience				
Average Results	0.0001	0.19	0.35***	-0.02
	(0.003)	(1.45)	(2.88)	(-0.98)
Variability of Results	-0.09	-0.48***	-0.05	0.05*
	(-1.59)	(-2.75)	(-0.18)	(1.72)
World Experience				
Average Results	0.08	-0.22	0.19*	0.21***
	(0.65)	(-1.62)	1.77	(2.66)
Variability of Results	0.28***	-0.99***	-0.82**	0.19***
	(2.91)	(-3.43)	(-2.42)	(3.32)
p-value for F	0.00	0.00	0.00	0.00
Observations	2105	1171	623	3488

Note: *p<.10, **p<.05, ***p<.01. t-test in parenthesis

Being more specific[3], it is not surprising that learning turned out to be insignificant to explaining why governments have granted independence to Central Banks. Neither in theory nor in practice is there a clear relationship between an independent monetary authority and economic growth[4]. Also, according to my informal (as opposed to legal) indicator of CBI, there is no evidence of policy convergence prior to the 1990s. Given this pattern of choices, it seems that domestic economic and political factors[5], rather than diffusion effects, can explain better the decision to adopt this institutional device.

Regarding the decision to liberalize the trade regime, governments have learned from the variability of results that the gains of free trade are very unevenly distributed. In Chapter IV, I argued that results under Export Orientation have exhibited a remarkable variation among and within regions. The learning model reveals that governments have been clearly risk averse in their decision to adopt EO, precisely because a high variability of results implies the existence of winners but also losers under this development strategy.

The learning model fits very well the decision to privatize. This illustration constitutes the clearest example of fast convergence in policy choices. At least in Latin America and OECD countries, this decision has been positively related to learning from average own, regional and world experiences[6]. This result is consistent with previous studies that already detected the existence of diffusion effects in the decision to privatize. This illustration showed that rational learning is, at least in part, the responsible for those diffusion effects.

Finally, learning also explains the decision to enter into agreements with the IMF. The distinctive result provided by this

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[3] I refer the reader to each chapter for detailed accounts.

[4] The model was also run using inflation outcomes. But learning from inflation experience does not explain this policy decision either.

[5] See Chapter III for details.

[6] This positive impact of learning on the switch to privatization is probably related to the fact that this sample, which only comprises two regions, is the most homogeneous.

illustration is that governments seem to have been risk-prone in their decision to enter into agreements. I have argued that governments seek the IMF when the overall economic situation deteriorates as to place decision-makers in the domain of losses. In this domain, governments' exhibit a risk-prone behavior. Many governments have granted independence to CBs or have privatized without facing poor economic prospects. However, no country with an *overall* buoyant economic situation has ever turned to the Fund.

Table 7.3 refers to the impact of learning on the decision to continue granting independence to Central Banks, privatizing and remaining under IMF agreements[7].

The general comment is that learning has hardly any power to explain governments' decision to remain under those policies. Inertia in choices looms pervasive, with IMF programs escaping this diagnosis only to some extent.

As above, rational learning does not explain the decision to continue granting independence to Central Banks. Again, the weak relationship between CBI and growth explains why governments have not learned from experience when deciding to continue granting independence. As with the decision to switch, it seems that local sectoral interests and domestic institutional or economic factors explain this decision better.

In this table, the most interesting piece of information is that learning, which was clearly powerful in explaining governments' decision to privatize, loses its explanatory power when it comes to explaining the decision to continue privatizing. Several arguments could apply. First, governments may continue privatizing because this policy generates a broad basis of support that makes its perpetuation politically attractive. Gamarra (1994) pointed out that governments have used privatization as a tool to reward supporters in the private sector and co-opt opponents. As I explained in Chapter V, governments have tried to garner support for this policy by extending its benefits to a broad coalition that typically

[7] Statistical problems precluded the inclusion of the Trade Liberalization illustration. See Chapter IV for details.

Table 7.3. Dynamic Probit Test. Probability of Remaining under Several Policies

Dependent V=Policy	*CBI*	*Privatization*	*IMF Agreements*
Lagged Policy Status	1.31***	1.48**	0.72***
	(10.20)	(2.48)	(5.07)
Own Experience			
Average Results	0.01	0.02	-0.01
	(0.72)	(0.44)	(-0.92)
Variability of Results	-0.08***	-0.98*	-0.03
	(-2.80)	(-1.93)	(-1.19)
Regional Experience			
Average Results	0.03	0.21	-0.08***
	(0.78)	(0.70)	(-2.64)
Variability of Results	-0.004	0.84	0.68
	(-0.08)	(1.45)	(1.43)
World Experience			
Average Results	0.16	-0.20	-0.03
	(1.40)	(-0.95)	(-0.37)
Variability of Results	-0.09	-0.97	0.14*
	(-1.07)	(-1.48)	(1.91)
p-value for F	0.00	0.00	0.00
Observations	2105	623	3488

Note: *p<.10, **p<.05, ***p<.01. t-test in parenthesis

included labor and the general public as much as the private sector. This strategy is most obvious in those cases in which building "popular capitalism" was an explicit goal. But even in those cases in which this was not the main purpose, governments designed strategies to curb popular opposition to privatization. Hence, the greater potential of this policy to produce tangible gains for a broad set of beneficiaries may have transformed privatization in a policy with electoral appeal, regardless of its impact on growth.

Without leaving the realm of cognitive variables, it is possible to come up with a different story of continuity in privatization. Governments may care about the impact of privatization on growth, but they may hold the belief that this impact is subject to delays. This belief alters the way in which experience is evaluated, delaying the updating process. Note that this constitutes a mechanism of policy continuity based on ideas, a topic that I discuss at length in the last Chapter of this study.

As for the decision to remain under IMF agreements, the signs of all the coefficients on average results are negative, although only the one that refers to regional experience is significant. It seems that governments do not conceive IMF agreements as enduring situations. When growth resumes, governments abandon them. Hence, not only governments adopt IMF agreements when confronted to bad economic prospects. Governments also leave the programs as soon as these prospects get better. These results together suggest that IMF contracts are certainly viewed as an "exceptional" policy.

Another lesson about learning is that there is no a clear pattern showing that learning from own experience outstrips learning from the experience of others. On the contrary, when learning matters, the pattern is consistent across levels of experience.

Also, recall that in Chapter II, I showed the impact of learning from *all* available experience (own, regional and world experience together) on the probability of switching to and remaining under the four policies (tables 2.1 and 2.2). Had it been the case that governments treat nearby information in a different way, learning

from overall experience should have been irrelevant as opposed to learning from disaggregated sources of information. However, this is not the case. For CBI, trade liberalization and privatization, learning from overall experience exhibits the same pattern than learning from experience at own, regional and world levels. Only in the decision to sign IMF agreements, results changed. While overall experience could not explain the decision to sign contracts, disaggregated experience turned out to be significant in explaining switches.

Finally, whereas the hypothesis of learning from own vs. vicarious experience had little support, the trade liberalization illustration confirmed the hypothesis of learning from miraculous vs. average performance. In Chapter IV, I showed that, in Latin America, the thrust to liberalize trade could be explained in terms of the Chilean experience and the experience of East Asian countries. And in this case, it seems that proximity mattered: none of these two outstanding policy experiences could explain why African countries liberalized their trade regimes. Hence, at least for this policy, close miracles did provide the most relevant lessons.

In sum, have governments learned from experience?

The answer is mixed. Governments have learned in their decision to switch to but they have not learned in their decision to remain under market-oriented policies.

Rational learning is significant to explain the decision to switch to three of the four policies analyzed in this study. These were the policies in which, in the period under scrutiny, choices did converge.

In those cases in which policies converged, average experience was crucial in the decision to privatize. Regarding the variability of results, governments adopted a risk-prone behavior and turned to the IMF. However, governments observed the existence of losers under trade liberalization and exhibited a risk-averse behavior. Yet, during the 1980s, more and more countries gave steps to liberalize their trade regimes. This suggests that other diffusion mechanisms may have played a role.

In section 7.3, I evaluate how these baseline models of learning are affected by the inclusion of two alternative mechanisms of policy convergence. I pit learning against external imposition and emulation as explanations of policy choices.

7.3. Alternative Hypothesis

So far, I have tested to what extent governments' policy choices result from a rational assessment of performance. In this section, I explore whether governments do not choose policies but are actually imposed them. Also, I test whether governments emulate the policies adopted elsewhere without undertaking any rational evaluation of experience.

7.3.1. Imposition

One widespread explanation of policy convergence is that governments have stabilized and have adjusted under the pressure of IFIs. The mechanism of imposition is epitomized by conditionality. The latter implies exchanging policies for loans. Trade liberalization is usually part and parcel of standard reform packages and privatization is indirectly promoted via the requirement of reducing public deficits. If the hypothesis of imposition holds, the switches to these policies should be positively related to the presence of IMF programs.

In Chapter VI, I reviewed the political economy of IMF agreements. To avoid being redundant, I briefly discuss a few points that are relevant for the question at stake, namely, whether the presence of an agreement actually "forces" policy changes. There are reasons not to make strong assertions.

Foreign aid has been crucial in promoting policy change in a number of successful reformers. For instance, Korea was a major recipient of foreign aid in the 1960s. Indonesia received very important financial help and debt relief in the 1960s and also

during the adjustment period in 1982. During the years 1983-1985, Chile received funds amounting to over 4% of GNP. At the beginning of the 1990s, Poland got a $1 billion stabilization loan to launch the Balcerowicz Plan. Finally, Turkey avoided negative transfers before 1983 thanks to massive support received in the period 1979-1981. In all cases, the aid was "highly conditional" (Haggard and Williamson, 1994: 567).

However, the presence of conditionality does not always imply that policies are imposed.

Reviews of cases of IMF involvement show that, in general, programs have not been adopted in the presence of a strong domestic opposition (Hagggard and Webb, 1994). Moreover, empirical research shows that domestic forces have usually been aligned with the posture of the IMF. Most authors agree that overt "leverage" has been a less important channel of influence than the subtle mechanism of "linkage". The latter refers to "tacit and explicit alliances across the negotiating table created by policy dialogue, technical assistance, and other avenues of influence in the policy process" (Kahler, 1992: 94)[8]. In her review of several cases of IMF involvement, Stallings (1992) concludes that among the early stabilizers in her sample (Korea, Thailand, and Mexico), the Fund was limited to provide financial assistance to policies undertaken by these governments (p. 87). In Chile and Colombia, "[t]he IMF and the World Bank helped nudge the governments in this direction [adjustment], but political leaders were already inclined to move" (p. 75). Discussing economic reforms in Turkey under Ozal, Onis and Webb assert that "international organizations (…) played a big role in Turkey's adjustment program but did not dictate most of its content" (p. 153). Kahler refers to Turkey and Indonesia as cases in which "alignment of interests [domestic and international] was so close that external influence was hardly

[8] This kind of elite networking epitomized by epistemic communities (see Haas, 1992, 1995, 1997) is for some a source of social learning (for instance, Kahler, 1992; 123-131) and for others, it is a source of social emulation (Simmons and Elkins, 2000: 7). This is only an example of how murky the discussion can be as to what learning is vs. imposition and vs. emulation.

required" (p. 131). The Fund provided financial assistance and exerted influence through dialogue and persuasion; but imposition was not an issue[9]. Thus, even if the presence of a program has a positive impact on policy switches, imposition may not always be the correct interpretation.

It should also be noted that the adoption of programs is a poor predictor of its implementation. In fact, empirical studies show that implementation has been dismal. For instance, Kahler's (1992) survey of the record of nineteen governments during the 1980s finds that only nine implemented coherent stabilization programs and only five implemented structural reforms. Another study carried out by Stephan Haggard on Extended Fund Facility programs showed that out of thirty cases, twenty-four were not implemented in their original forms and sixteen were canceled (in Kahler, 1992: 97). And Nelson shows that, even in cases where IMF leverage has been clear in adopting programs (Ghana under Rawlings, Jamaica under Seaga and Zambia under Kaunda are some examples), success in implementation was unrelated to IMF involvement. Hence, programs may not have an impact on policy switches simply because, despite existing, they were not carried through.

Finally, in hypothesizing about the impact of IMF agreements in the context of this research, I want to draw attention to the following points. To begin with, 88% of the agreements signed in the period covered by this study are Stand-By agreements, that is, they aimed at stabilization, not structural reforms. Also, IMF packages typically advocate trade liberalization, but Central Bank independence has not been included in these conditional packages, at least in the period I review. Finally, in the privatization illustration, OECD countries constitute the bulk of my sample

[9] Of course, this does not mean that there have not been cases of overt leverage, prominently in Africa (Ghana under Rawlings and Zambia under Kaunda are examples). Also in the Philippines under Marcos and in some Latin American countries (Jamaica under Seaga and the Dominican Republic under Blanco) the Fund strongly influenced the direction of policy.

(62% of total observations). Most countries in this sub-sample did not need an IMF program to privatize. Out of 200 country-year observations of privatization only 17 occurred under IMF programs[10]. In the overall sample, around 28% of the divestitures occurred under IMF surveillance.

Taking these facts into account, I do not expect the existence of IMF agreements to be a good explanation of policy switches and of the decision to remain under those policies. The exception may be the decision to liberalize trade, a policy usually advocated by the Fund and implemented under its auspices in half of the observations of my data.

I test the hypothesis of imposition by adding a dummy variable to the baseline models. This variable accounts for the existence of an IMF agreement in a particular country, a particular year. Note that, even if IMF programs turn out to have a positive impact on the decision to switch to market-oriented policies and to remain under them, the subtle question as to whether the mechanism of influence is leverage or linkage cannot be addressed by this procedure.

Finally, note that external imposition is not confined to IFIs' activities. Especially in the area of trade policy, there is an extensive repertoire of international arrangements with clear policy content. The World Trade Organization (WTO), Mexico's free trade agreement with the United States and Canada or membership of the European Union (EU) have entailed the prospect of trade concessions from important partners. A more outward-oriented trade policy has been a requisite to enjoy those concessions (Haggard and Webb, 1994.: 27).

Due to data availability, the empirical test in section 7.3.3. only accounts for IMF influence.

[10] In Poland, Hungary and Turkey.

7.3.2. Emulation

Emulation is an alternative mechanism of policy choice under uncertainty. In the case of emulation, and contrary to learning, governments do not choose policies due to an improved understanding of the consequences of their choices. Emulation "entails adoption of policy ideas without such understanding" (May, 1992: 333; also Rose, 1991; Bennett, 1991; Biersteker, 1995). However, a modicum of *perceived* success is necessary to spur mimicry. Discussing privatization, Ikenberry (1990), asserts that "[a]ll states are interested in doing better rather than worse; they prefer economic and political success to any alternatives (…). The watchword is "copy what *seems* to work" (p.103; emphasis added).

The mechanisms driving emulation are several.

First, emulation may be "social". A government that does not know what to do may simply copy the policies adopted in countries with which it shares particular linguistic, religious or historical ties. Also, governments may emulate the policies of high status countries on the belief that they know better. For instance, Ikenberry contends that "the political debates over "industrial policy" in the early 1980s and the current rhetoric of "competitiveness policy" exemplify efforts to emulate the Japanese success" (p. 102).

Second, imitation may be "competitive". Governments adopt the policies of their competitors due to fear that non-adoption may cause flows of economic activity outside the country. Also, the adoption of particular policies by a competitor may undermine the efficacy of the policies in another country, thereby creating incentives to converge. For instance, capital controls may lose their efficacy if few other countries keep controls.

The work by Simmons and Elkins (2000) constitutes the only example I know of in which these alternative mechanisms of emulation have been tested empirically. The authors explore the impact of social and competitive emulation in the decisions to liberalize the current, capital accounts and the exchange rate. As

for "social emulation", they surprisingly find that sharing a common religion is a very significant and robust predictor of the decisions to liberalize. And regarding "competitive emulation", they find that competition for international capital has exerted a strong pressure to liberalize the external accounts.

Third, reputation and credibility may motivate countries to subscribe policies broadly endorsed elsewhere. Kurt Weyland (2000: 24) asserts that "the imitation of innovative practices developed by higher status countries may be driven less by a careful effort to improve policy programs than by the desire to demonstrate 'modernity' and attract favorable attention from international public opinion". In the same vein, discussing Central Bank Independence, Bagheri and Habibi (1998: 190) hold that "many developing countries imitate the financial laws of the Western industrial countries for the sake of prestige and international approval".

In turn, credibility and reputation can help countries to gain leverage internationally and domestically.

Internationally, adoption of policies generally regarded as "good" may be understood as a signal of commitment to sound economic policy, which enhances a country's creditworthiness in a context of increased competition for capital (Maxfield, 1997).

Domestically, the argument that particular policies are "good" as reflected in a high number of advocates may provide a powerful argument for governments committed to unpopular policies. Recall that, by reducing sovereignty costs, the number of countries participating in IMF agreements had a positive influence in the probability that a particular country entered into agreements. Although sovereignty costs may not be such a visible issue in the adoption of an independent Central Bank, trade liberalization and privatization[11] may arise nationalist concerns and accusations of selling-out to foreign interests. In this context, endorsing the

[11] Depending on whether foreign capital is allowed to participate and to what extent.

policies the majority does may serve to legitimate their adoption and curb opposition[12].

I test the hypothesis that emulation has driven the choice of policies by adding to the baseline models a variable that accounts for the number of other countries engaged in a particular policy, a particular year. This variable serves as a proxy for the general climate of opinion regarding the policy in question (as in Broz, 1999). I expect this variable to have a positive effect on the probability to switch to and on the probability to remain under those policies. Note that this measure is also rough. Emulation may matter but this proxy cannot pinpoint at the particular mechanism of emulation at work.

7.3.3. Results

Table 7.4. summarizes the results of adding these alternative mechanisms to the learning models. The decision to liberalize trade has been the outcome of learning, imposition and emulation. Privatization was spurred by learning from others and also by emulation. Finally, learning is the only mechanism of diffusion that has influenced the decision to enter into IMF agreements

Table 7.4. Mechanisms of Convergence and Policy Choices

	Central Bank Independence	*Trade Liberalization*	*Privatization*	*IMF Agreements*
Learning		*	*	*
Imposition		*		
Emulation		*	*	

[12] For instance, in Australia, reforms were adopted under the Labor government of Bob Hawke. These reforms garnered the support of business groups, natural constituency of the conservative parties, and even of some leading conservative representatives. This resulted in a deep division in the opposition parties (Garnant, in Williamson, 1994: 69).

I focus, first, on the decision to switch to those policies (table 7.5).

None of the mechanisms of diffusion could explain the decision to grant independence to Central Banks. Since these mechanisms did not operate, policy choices did not converge overtime. Hence, this result is coherent with the observed pattern of policy choice (see figure 7.1) and it confirms the argument that domestic political and institutional variables can explain better the decision to grant CBI before the 1990s

Regarding trade liberalization, results change considerably when I consider imposition and emulation as explanations. Recall that rational learning entailed that the view of losers under EO induced a risk-averse behavior negatively related to the decision to adopt this policy. Yet, the fact is that choices converged overtime. After controlling for the alternative mechanisms of diffusion, risk-aversion in the view of high variability of results in the world still holds. However, the most interesting result is that both imposition and emulation are strongly significant in the decision to liberalize the trade regime. As I expected, this is the only policy in which having an IMF agreement seems to have played a role in promoting policy change. And trade liberalization has also been the result of emulation, probably of the competitive type.

As for privatization, the result that learning is a powerful explanation of switches is robust to the inclusion of my alternative hypothesis. Whereas policy emulation seems to have played a role in the decision to privatize, imposition turned out not to be significant. I expected this result taking into account that, in OECD countries, IMF agreements have been the exception and nonetheless, they privatized. Finally, this result is consistent with previous research that found IMF agreements irrelevant in the decision to divest (see Brune and Garrett, 2000).

Lastly, emulation pales as an explanation of the decision to enter into agreements with the IMF. The inclusion of this control variable leaves unaffected the impact of learning on the decision to enter into contracts.

Table 7.5. Extended Dynamic Probit Test. Probability of Transitions to several policies

Dependent V=Policy	*CBI*	*Export Orientation.*	*Privatization*	*IMF Agreements*
Lagged Policy	-1.81***	-4.99***	-2.70***	-1.19***
	(-2.69)	(-5.96)	(-5.67)	(-8.61)
Own Experience				
Average Results	-0.01	0.02	0.16**	0.02***
	(-0.39)	(0.53)	(2.23)	(3.08)
Variability of Results	-0.08*	-0.07	-0.28	-0.02
	(-1.87)	(-1.17)	(-0.58)	(-0.79)
Regional Experience				
Average Results	0.0001	0.32**	0.23*	-0.02
	(0.003)	(1.98)	(1.65)	(-0.98)
Variability of Results	-0.09	-0.29	0.26	0.05*
	(-1.60)	(-1.53)	(0.70)	(1.72)
World Experience				
Average Results	0.10	0.002	0.22*	0.21***
	(0.77)	(0.01)	(1.72)	(2.66)
Variability of Results	0.27***	-0.68**	-0.12	0.19***
	(2.74)	(-2.15)	(-0.77)	(3.21)
Number of Other countries	0.13	0.63***	0.75***	0.0005
	(0.84)	(3.95)	(3.89)	(0.012)
IMF Agreements	-0.07	0.46**	0.19	
	(-0.45)	(2.22)	(0.66)	
p-value for F	0.00	0.00	0.00	0.00
Observations	2105	1171	586	3488

Note: *p<.10, **p<.05, ***p<.01. t-test in parenthesis

In sum, a blend of learning, emulation and imposition explains the decision to liberalize the trade regime. Learning and emulation explain the decision to privatize and only learning explains the decision to enter into agreements with the IMF. None of these mechanisms explains the decision to grant CBI.

Table 7.6 refers to the impact of learning, imposition and emulation on the probability of continuing granting independence to Central Banks, privatizing and remaining under IMF agreements.

As before, the decision to continue under market-oriented policies cannot be explained in terms of the mechanisms of diffusion. Again, the most intriguing result is that neither learning nor emulation can explain the decision to continue privatizing. It seems that, after governments engage in privatization, they remain under this policy regardless of growth outcomes. The same explanations I posed above may apply: either governments evaluate privatization in political instead of economic terms or they do evaluate this policy on economic terms but growth is not the economic variable governments care about. Moreover, governments may actually care about the impact of privatization on growth, but not as a Bayesian learner would do.

The inclusion of new mechanisms of diffusion does not add anything new to the story as to why governments decide to remain granting independence to CBs or to remain under IMF agreements.

In sum, the learning hypothesis is robust to the inclusion of alternative mechanisms of policy diffusion.

Putting together all these pieces, the picture that emerges is one in which learning in isolation or in combination with other mechanisms explains the decision to switch to three of the four market-oriented policies. None of the mechanisms explain the decision to switch to the only market-oriented policy in which choices did not converge during the period of study.

Table 7.6. Extended Dynamic Probit Test. Probability of Remaining under Several Policies

Dependent V=Policy	*CBI*	*Privatization*	*IMF Agreements*
Lagged Policy Status	2.04***	-0.14	0.57***
	(3.38)	(-0.10)	(3.21)
Own Experience			
Average Results	0.01	0.04	-0.007
	(0.63)	(0.65)	(-0.67)
Variability of Results	-0.07**	-.91*	-0.04
	(-2.45)	(-1.66)	(-1.26)
Regional Experience			
Average Results	0.02	0.26	-0.07**
	(0.54)	(0.84)	(-2.21)
Variability of Results	0.01	1.22*	0.06
	(0.20)	(1.79)	(1.27)
World Experience			
Average Results	0.11	-0.03	0.08
	(0.94)	(-0.17)	(0.59)
Variability of Results	-0.08	-0.46	0.11
	(-0.99)	(-0.61)	(1.42)
Number of Other Countries	-0.16	0.46	0.09
	(-1.14)	(1.30)	(0.13)
IMF Agreements	-0.16	0.22	
	(-1.12)	(0.64)	
p-value for F	0.00	0.00	0.00
Observations	2105	586	3488

Note: *p<.10, **p<.05, ***p<.01. t-test in parenthesis

Whereas the story of switches to market-oriented policies can be well accounted in terms of these mechanisms, the story of policy continuity cannot be explained in terms of diffusion effects. This result is not surprising in the case of Central Banks and IMF agreements. In the case of Central Banks, the pattern of non-convergence suggests that policy choices have been mediated by domestic factors. In the case of IMF agreements, I have argued that governments view them as exceptional economics, that is, as situations that are not meant to endure. However, although governments switched to privatization as a result of learning, they continued privatizing regardless of experience.

7.4. Conclusions

CBI, trade liberalization, privatization and IMF agreements differ in their visibility, in the timing of expected outcomes, in the size of the groups they affect and the number of potential and immediate beneficiaries. Also, the pattern of policy choices shows that governments have gradually converged in their decisions to privatize, to liberalize trade regimes and to enter into agreements with the IMF. Learning in isolation or in combination with other mechanisms of policy diffusion explained this gradual path.

An alternative story of policy convergence puts the emphasis on the role of ideas.

The strongest version of the power-of-ideas argument portrays them as meteorites that hit "the world of public policy with sudden and devastating effect" (Hood, 1994: 5). According to this version, some economic blueprints are self-evident and non-controversial. The Washington Consensus would be one example. Note that if this mechanism operates, switches in policies should be fast and massive.

A look at figure 7.1. reveals that policy convergence has been more gradual than radical. Even in the case of privatization, an illustration of fast convergence, an account based on ideas would compete with learning and emulation as explanation of policy

switches. However, the fact that learning from experience is a relevant explanation in the decision to privatize invalidates the plausibility of this strong version of the power of ideas. Ideas cannot be self-evident if the decision to adopt them is based on others' experience.

There is a softer version of the role of ideas. This version implies that economic ideas gain prominence, not because they have intrinsic power, but because particular domestic constellations of interests and/or institutions promote their ascendance. Yet, this version of the power of ideas cannot explain policy convergence. On the contrary, when the adoption of policy ideas is contingent on domestic factors, the pattern of policy choices would resemble what one observes in the Central Banks illustration.

Finally, an important lesson about learning is that it cannot explain why governments remain under market-oriented policies. Emulation and imposition were also useless to explain this part of the story.

In Chapter VIII, I argue that economic ideas may have been responsible, at least in part, for the decision to continue under market reforms. It is not that governments did not care about experience after they adopted these policies. Rather, I argue that governments hold particular beliefs about the dynamics of market reforms that may entail an evaluation of available experience in ways that depart from Bayesian rationality.

CHAPTER VIII

CONCLUSIONS

8.1. The Question

During the 1980s and 1990s, many countries in the developed and in the developing world engaged in market-oriented reforms. Governments of all ideological stripes made steps to stabilize their economies adopting restrictive fiscal and monetary policies. They also engaged in structural reforms aimed at opening up their economies and shrinking the role of the state in promoting development.

I took side with the contention that the coincidence of similar policy decisions in so many dissimilar countries suggests that external forces, along with domestic ones, have driven the process. One of these forces is learning from experience. Hence, the main question of this research has been whether governments switched to and remained under market-oriented policies as a result of learning.

The final question is whether ideas have played a role in the shift to and permanence under market-oriented reforms. Recall that the recent wave of economic reforms had a clear intellectual inspiration in the so-called Washington Consensus. Thus, the question: did governments change policies because this blueprint

was uncontroversial? Also, in what other ways may ideas influence policy choices?

My strategy to address the elusive issue of the power of ideas consists in taking the following detour: ideas are best candidates to explain what neither learning nor my other alternative hypotheses could address. Approaching the question in this way suggests that it is in explaining continuity under market-reforms where the power of ideas looms more persuasive.

The application of the Bayesian model of learning to the four market-oriented policies provides the following insights about learning, about ideas and about learning and ideas.

8.2. Learning

Discussions on learning became recently a booming industry, especially in the fields of Public Policy Analysis and International Relations. In their thorough review of available notions of learning, Bennett and Howlett (1991) concluded that "there is no shortage of theorization. Our review suggests that, if anything, the concept has been overtheorized and underapplied" (1992: 280). In the same vein, Bennett (in Stone, 1999: 52) pointed at "the paucity of systematic research that can convincingly make the case that cross-national policy learning has had a determining influence on policy choice". These statements are certainly an accurate description of the state of the art.

Bennett and Howlett (1992) review the concepts of political learning (Heclo, 1974), policy-oriented learning (Sabatier, 1987), lesson-drawing (Rose, 1991), governmental learning (Etheredge, 1981) and social learning (Hall, 1993). The notions of learning do not end up here. May (1992) adds the notion of instrumental learning and Levy (1994) contributes with his distinction between causal and diagnostic learning.

As the reviewers thoroughly discuss, all notions entail an improved understanding of cause and effect relationships in the view of experience. However, definitions frequently overlap and

concepts vary in the subject (who learns) and the object of learning (about what). Also, different concepts entail different consequences. For instance, sometimes learning is merely procedural. It refers to changes in the policy process or in the capacity of policy advocates to advance their ideas (Etheredge's governmental learning or May's definition of political learning). Other times learning is about policy contents, ranging from learning about particular policy instruments (Rose's lesson-drawing) to learning about the ultimate goals of policies and the terms of the policy discourse (Hall's social learning). Finally, some definitions of learning entail a change in behavior (for instance in Heclo and Hall's versions of the concept) whereas others define learning as a change in beliefs that may or may not induce a behavioral change (as in Levy).

For its relation with the question I deal with, Peter Hall's concept of social learning deserves some more attention.

Using the British shift from Keynesianism to Monetarism between 1970 and 1989 as illustration, Hall conceptualizes social learning as a three-level change that affects the setting of the instruments of policy making *(first order change*), the instruments themselves *(second order change)* and the ultimate goals of policies. When these changes occur simultaneously, Hall describes the process as one of *third order change*. The distinctive characteristic of this type of change is that it affects "the framework of ideas and standards that specifies, not only the goals of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing" (p. 278). Hall defines these frameworks as "policy paradigms". First order and second order changes constitute instances of "normal policy making", that is, adjustments in policies that are compatible with continuity under a particular policy paradigm. However, third order changes are characterized by discontinuities in policy, which only occur relatively rarely.

Following Kuhn's work on changes in scientific paradigms, Hall contends that the accumulation of anomalies and puzzles that cannot be explained in terms of a policy paradigm will gradually

undermine its authority, eventually causing its abandonment. Thus, policy failure appears fundamental in triggering the social learning process.

Hall's account of social learning has some useful features. The notions of first and second order change embrace all other notions of learning that refer to changes in processes, programs and instruments, hence simplifying the conceptual discussion. It also introduces the notion of paradigm shift, which has relevance for this research.

The switch from inward-oriented to outward-oriented policies and from statism to marketization constitutes yet another illustration of paradigm shift that may have resulted from a learning process. Thomas Biersteker contended that the shift in economic thinking witnessed during the 1980s and 1990s might have been the result of a process in which "developing countries may have finally been "educated" and accepted the superiority of the liberal economic ideas they resisted for decades" (1995: 180). Miles Kahler (1990) pursues the same line of reasoning to explain what he describes as a shift in the supply of economic ideas towards orthodoxy. However, these authors do not succeed in making a strong argument in favor of the learning hypothesis, let alone in testing the argument empirically. In fact, Kahler's work ends up being a discussion of the related, but different problem, of the impact of ideas on the choice of policies (see below).

In a later work on a related topic, Miles Kahler (1992: 124) posed the knotty problems involved in testing the hypothesis that learning caused the shift to economic liberalism[1]. He qualified as "demanding the empirical task of demonstrating that a particular behavioral change is the result of a clearly specified cognitive alteration at one level or another". And he added

[1] In this article, his use of social learning is circumscribed to elite networking. At the center of this type of learning are "transnational epistemic communities who share a common set of "cause-and-effect beliefs" and appropriate control over policy in a particular issue area" (p. 126).

> The investigation of shared beliefs is not an impossible empirical task but, once again, it has rarely been attempted in a rigorous fashion. Nor have alternative explanations for policy change been carefully compared to an explanation based on change in ideology or beliefs. A first step in such empirical investigation is obviously the definition of those cognitive (…) elements that are presumed to have an influence on the policies in question

None of the notions of learning mentioned above were amenable to address these conundrums. Even the more appealing notion of social learning is ruled out since, by definition, social learning cannot be observed in isolation of the change requiring explanation[2]. The awareness of these methodological problems pervades most works. As a result, the empirical test of learning has been a pending task of some future research agenda.

To overcome these difficulties, I assumed that politicians are rational learners. Bayesian learners have some prior beliefs about the outcome of policies and they update them making use of all available information. Prior beliefs are updated using Bayes' rule. This rule implies that average experience with policies is positively weighted by the "volume" of experience and negatively weighted by the variability of it. Hence, in this model of learning, there are some prior beliefs, there is some experience, there is an operational mechanism of learning, Bayes's rule, and there are some posterior beliefs, combination of prior beliefs and experience. This notion of learning overcomes the operationalization conundrum.

Bayesian learning has no implications for policy change. Learning is from experience and it implies a change of beliefs. Filling the gap that goes from belief updating to policy change requires a model of how governments choose policies[3].

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[2] Peter Hall states that "learning is indicated when policy changes as the result of such process [in response to past experience and new information]" (p. 278).

[3] Bayesian learning is not dissimilar from Levy's notion of learning in this respect.

Because noise is an indicator of the responsibility of policies on observed outcomes, governments prefer the policy that yields the best results with the least noise. Governments choose policies by comparing their updated beliefs about alternative policies.

According to this model of rational learning and rational choice, different governments analyze experience in the same way. Thus, the model predicts that choices, hence policies, converge as long as governments are exposed to the same information. Using an appropriate statistical technique, I tested whether policies have changed and remained because governments learned, thereby solving the causality conundrum.

Finally, I included other possible explanations for policy convergence. Policies might have converged because governments copied each other. Alternatively, policies might have converged because governments were coerced to adopt the same policies. Hence, I compared an explanation of policy change based on learning to alternative explanations of change, tackling another of Kahler's objections.

The application of the rational learning model to the decisions of granting independence to Central Banks, to liberalize trade, to privatize and to enter into agreements with the IMF provides the following results[4]:

First, learning in isolation or in combination with the alternative mechanisms of emulation and imposition can explain the decision to liberalize trade, to privatize and to enter into agreements with the IMF.

Second, neither learning nor emulation or coercion could explain the decision to grant independence to Central Banks. This is the only policy in which choices did not converge overtime.

Third, there is no evidence that own experience is more relevant than the experience of others in the decision to switch to these market-oriented policies. However, the trade liberalization illustration showed that a close outstanding performance exerted strong demonstration effects.

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[4] I have discussed the results at length on Chapter VII.

And fourth, rational learning cannot explain why governments remain under market-oriented reforms after they adopt them.

Rational learning contrasts with the more frequent psychological approach to political learning, which is driven by cognitive heuristics and affective biases. Psychological approaches stress the fact that rationality is, at best, bounded. Lounamaa and March find that learning is "myopic, incremental and ignorant". Jervis argues that "people pay more attention to what has happened than to why it has happened". Thus, learning is superficial, overgeneralized and based *on post hoc ergo propter hoc* reasoning"(in Levy, 1994: 294). Frequent cognitive biases are the tendency to overweight dramatic events and underweight averages as well as the tendency to interpret information in a way that conforms with own views. According to March and Levitt, learning is many times *superstitious*, by this implying that "beliefs about effectiveness of particular actions (…) dominate any understanding or evaluation of performance" (in May, 1992: 336). Also, individuals seem to learn more from own experience than from the experience of others. Finally, it seems that people discriminate information on the basis of proximity to and reliability of the source of information (Kyburg, 1997; Hacking, 1997; March and Olsen, 1989).

As much as learning may proceed by ways that depart from Bayesian updating, decisions can be made in ways that depart from rationality. The notions of policy success and policy failure are not unambiguous. They are influenced by expectations and by how gains and losses are framed, not in relation to absolute levels of utility, but in relation to aspiration levels. Also, the framing of decisions affects individuals' willingness to take risks. In the domain of losses, this willingness increases (Kahneman and Tversky, 1997).

These qualifications are important and, in fact, I have incorporated some of them to my analysis without abandoning a Bayesian framework[5]. Note, however, that these alternative

[5] For instance, I have addressed the question of the proximity to the source of information. I have also addressed the issue of miraculous vs. average

accounts of learning and choice imply that, even if governments are exposed to the same information, they may process and frame it in different ways, which precludes a convergence in beliefs and, therefore, in policy choices. Hence, these deviations from rationality may explain divergent paths of policy choices.

In sum, Levy stated that "the concept of learning is difficult to define, isolate, measure and apply empirically" (1994: 282). Bayesian learning proved to be a suitable tool to address the hypothesis of learning at a cross-national level and to overcome methodological problems that appeared insurmountable.

8.3. Ideas

Ideas are an alternative mechanism to explain the recent wave of market reforms. As Biersteker put it "[a]ccording to some observers, the striking convergence in the pattern of economic (…) reform reflects a "triumph" of liberalism on a global scale" (1993: 174). But how ideas triumph is not an obvious issue.

In this study, I treat ideas as an alternative hypothesis whose impact is to be determined by default: ideas are *a priori* good candidates to explain what neither learning nor the other mechanisms of convergence could explain. By this logic, ideas appear to be a mechanism better suited to address continuity rather than change. I flesh out this argument in this section and in section 8.4.

The role of ideas in policy making recently became the object of a heated debate. The controversy has revolved around whether economic ideas have intrinsic power to affect policy choices or whether their power derives from the interests that support them and the institutions in which they get embedded.

One version of the power of economic ideas is portrayed by Hood's metaphor of ideas as meteorites that hit the system (1994).

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performance. And the fact that the model implies learning from averages and from variability allowed reaching conclusions about governments' attitudes towards risks.

In this version, economic ideas are accepted as self-evident, unquestioned and not requiring any evidence to validate them. Their acceptance should be general and immediate and deviations only understandable in terms of an unfortunate lack of vision and/or political will. However, economic ideas are rarely uncontested[6] and such a strong view of the impact of ideas is untenable unless politics is completely removed from the picture.

John Williamson referred to the Washington Consensus as "the common core of wisdom embraced by *all* serious economists" and the "*natural* reference point for what one might expect technopols to aim at during the first stage of reform" (emphasis added; p. 18).

Had this Consensus been self-evident, switches would have occurred everywhere at the same time without the need of any experience to validate those ideas. However, the gradual pattern of policy change depicted in this research suggests that, at least for politicians, there is very little *natural* or self-imposed in market-oriented policies.

There have been other influential accounts of the impact of ideas on policy choices; but the extent to which they have succeeded in providing a strong argument of the independent role of ideas is subject to discussion. Rather, these accounts show that ideational explanations are valuable supplements to other models of policy choice that in fact deal with the role of material interests and institutions in preventing or fostering policy change.

For example, Peter Hall's study of the cross-national influence of Keynesian ideas in Europe and the U. S. made their acceptance or rejection contingent on a constellation of domestic variables such as the economic viability of these ideas (the appeal they had for the economics profession), their administrative viability (the

[6] Not even among economists. See for instance, Stiglitz (1996). Toye has also attacked the Washington Consensus arguing that "[N]o one feels the need to test it empirically because the facts are so obvious; no one really wants to delve into welfare economics because its results are vulnerable to a whole raft of academic quibbles; and no one is really going to call in the Spanish Inquisition if the occasional economist harbors sincere doubts about, say, the privatization proposition. We are (…) in the realm of the Empowering Myth" (p. 39).

way they accorded to existing institutional features of the polity) and their political viability (the degree to which ideas were useful as coalition-building instruments). Factors such as the permeability of the civil service to new economic ideas, the degree of concentration of power over economic management, the relative power of central banks, the orientation of the governing party, and the prevailing structure of political discourse can explain why proto-Keynesian and Keynesian ideas faced strong resistance in Germany, Italy and Japan. They can also explain why deficit spending was rejected in interwar Britain, it was pursued abortively later in France and was accepted in the U. S. with some doubts only after 1938. Peter Hall openly concludes: "Ideas have real power in the political world, [but] they do not acquire political force independently of the constellation of institutions and interests already present there" (1989: 390).

In a similar vein, Kathryn Sikkink's (1991) account of the success of developmentalism in postwar Brazil and its failure in Argentina puts ideas held by groups and specific institutional structures at the center of her explanation. In her account, the power of ideas is manifested by the fact that "ideas transform perceptions of interest, shaping actors' self understanding of their own interest" (p. 243)[7].

In yet another prominent study, the edited volume by Judith Goldstein and Robert Keohane (1993: 8-11), ideas are defined as beliefs held by individuals. They classify these beliefs in three types: principled beliefs, causal beliefs and world-views. World-views are for Goldstein and Keohane what policy paradigms are for Peter Hall. Principled beliefs are the normative bases and justifications of particular decisions, while causal beliefs are beliefs about means-ends relationships, that is, strategies to reach

[7] In Argentina, developmentalism had economic viability, but it lacked administrative and political viability. Raul Prebisch, who led a team of the Economic Commission for Latin America (ECLA) in the mid-1950s, was associated with the orthodox programs of the pre-Peron years when he headed the Central Bank and with the military government that succeeded Peron. Hence, he was considered as an outsider (see Kahler, 1990: 59).

some goals. For instance, a causal economic belief is the belief that an increase in interest rates reduces inflation. A principled belief might be that is morally desirable to tax everybody by the same amount. And a world-view might be a belief in, say, developmentalism or monetarism (Woods, 1995: 162).

Principled and causal beliefs affect policy outcomes when "they (…) provide road maps that increase actors' clarity about goals or ends-means relationships", when they become "focal points that define cooperative solutions or act as coalitional glue" and finally, when they become embedded in political institutions[8] (Goldstein and Keohane, 1993: 12-13).

The cognitive turns in historical and rational institutionalisms have been thoroughly criticized in the works of Jacobsen (1995), Woods (1995), Yee (1996) and Blyth (1997).

As it was the case in the discussion of learning, research about the role of ideas is obscured by the existence of several notions (policy paradigms or world-views/principled/causal beliefs)[9] that operate at different levels (policy adoption/implementation/ consolidation) with different consequences. For Hall and Sikkink, ideas are policy paradigms and their concern is with paradigm shifts. For Goldstein and Keohane and the contributors to their volume, world-views are one type of ideas but their attention focuses on ideas as principled and causal beliefs, which operate at the level of first and second order changes (Blyth, 240). Hence, it

[8] These mechanisms are exemplified in Garrett and Weingast's account of the implementation of the European single market. The famous Cassis de Dijon played the role of focal point around which actors' expectations converged. But focal points do not occur spontaneously, the authors argue. They are constructions and institutions play a crucial role in providing constructed focal points. Ultimately, this idea was chosen because any other alternative would have implied costly revisions of the Treaty of Rome. Later in their paper, the authors acknowledge that "[T]here is nothing intrinsic in ideas themselves which gives them their power, but their utility in helping actors achieve their desired ends"

[9] Woods is very critical with this disaggregation and the tendency to ignore how these types of beliefs relate to each other. Causal and principled beliefs relate in a specific way to overarching world-views. The concept of ideology embraces all three (p. 162-163).

is not surprising that Goldstein and Keohane's volume envisages a more circumscribed role for ideas.

The reviewers share the opinion that the ideational addendum in political economy has not succeeded in showing that ideas have intrinsic power. Jacobsen, for instance, contends that it is not tenable to argue that ideas shape interests and at the same time, they have an independent impact from the interests they shape (p. 286). The same author describes Hall's volume on the power of ideas as "an effective blend of elite and institutionalist analysis" with a "bromidic" upshot: "the more powerful the sponsors of ideas, the more powerful the ideas" (p. 295). And Blyth, commenting on the work by Garrett and Weingast, points out that rationalist accounts regard ideas as "either signaling devices designed to increase information flows, or they are synonymous with institutions. If they are signaling devices, then their role is extremely circumscribed. If they are synonymous with institutions, then they are simply an ad hoc addendum to institutionalist economics" (p. 243). Therefore, these reviews conclude that ideas are not allowed "a life of their own" (Blyth, 241)[10].

But the reviews themselves face a problem. These works do not clarify what ideas "having a life on their own" would entail or what the "intrinsic power of ideas" is. Therefore, it is left to the authors' own criteria judging which ideational effects are real. For some, the power of ideas should rest in their content (Woods, 1995). For others, the power of ideas is reflected in their consequences on defining interests and provoking institutional changes.

For instance, Blyth (1996), acknowledges the existence of "liminal" moments in history in which "ideas gain a special salience" and "can facilitate a wholesale break with the past" (p.

[10] In the view that all reviewed works openly acknowledge this fact, it is not clear to me that the authors had such an ambition in the first place. For example, in the first paragraph of their chapter, Goldstein and Keohanne make it clear that "we suggest that ideas *as well as* interests have causal weight in explanations of human action" (p. 4). And Sikkink in their volume treats economic ideas as "clusters of ideas/interests" (p. 162).

245). He goes on to assert that "the espousal of critical economic ideas is clearly related to periods of deep-seated institutional reform. Incrementalism is not the norm when economic ideas, *as a prerequisite of policy change*, advocate a dismantling of existing institutions" (p. 246: emphasis added). Ideas may redefine interests and have institutional effects. They may not be sufficient but still be necessary for radical policy changes. For the author, a necessary but not sufficient role constitutes evidence of the power of ideas.

More relevant for this research is whether these ideational models are of any use to explain the gradual convergence in three of the policies I have surveyed. Note that the meteorite version of the role of ideas can explain convergence, but not gradualism. Peter Hall's and Kathryn Sikkink's models that make the acceptance of ideas contingent on domestic factors are well equipped to explain gradualism but not convergence. In fact, as best illustrated in Hall's volume on the adoption of Keynesian ideas, these models have been used to explain divergent rather than convergent choices. Hence, the subsequent question is what role ideas may be granted when the observed pattern is one of convergence *and* gradualism.

An additional problem of these ideational explanations of policy choice is their lack of clarity when it comes to dealing with ideas and learning simultaneously. For instance, Hall's account of social learning implies that learning is about ideas. But the way in which learning and ideas relate to each other is obscure. "After all – Hall states– the concept of social learning implies that ideas are central to policy making, even if it says little more than that about the role they play" (1993: 279).

I have argued that learning and ideas are rival explanations of policy convergence. I also argue that there is a feedback between learning and ideas the outcome of which differs depending on whether experience prevails over ideas or vice versa. In section 8.4, I flesh out this argument showing that, when ideas dominate the learning process and economic ideas are explicitly intertemporal, a counterintuive result can be accounted for,

namely, persistence in policies that do not yield good economic results.

Harberger (in Tommasi and Velasco, 1995: 18) stated that "practitioners go around with a certain world-view in their heads. All sorts of crazy things can happen (…) and still leave seasoned practitioners unruffled because their world-view already contains sensible explanations for them".

Note that this type of argument is purely ideational and that the power of ideas is not in their consequences but in their content. Some policies continue in spite of bad outcomes because ideas contain explanations for them.

I apply this type of reasoning to explaining continuity under market-oriented reforms. After all, and paraphrasing Harberger, all sort of crazy things can happen under those reforms – like persistent recessions, wrenching unemployment and unraveling inequality – and still leave seasoned advocates unruffled because this is precisely what ideas predict.

Recall that continuity under market-oriented reforms is precisely the part of the story that neither learning nor coercion or emulation could explain.

8.4. Learning and Ideas

In this section, I spell out the way in which learning and ideas may interact. My argument is that there is a feedback between learning and ideas and that, in that feedback, the balance can favor learning over ideas or vice versa. In the first scenario, both policy continuity and policy change may be the outcome. However, when ideas dominate the balance and those ideas are explicitly intertemporal, policy continuity is the most likely result, even in the view of bad experience.

The elements of this interplay are ideas, beliefs, policies and experience.

A few words are needed about ideas and beliefs. Contrary to most works, I do not use these terms as equivalent. I consider

ideas as plans for action, which contain both normative and positive information about goals and means to attain those goals. Beliefs, following a Bayesian approach, are parameterizations of ideas[11]. In Bayesian learning, those beliefs are updated in the view of experience. I assume that updated beliefs reveal information about the validity of ideas.

For example, an idea may contend that low inflation is desirable and that having an independent Central Bank will keep inflation low. A particular government may think that granting independence to its Central Bank will bring inflation down by half a point (belief). After adopting the policy, this government observes that inflation actually increases (experience). In the view of this result, the government in question revises its initial belief (rational updating) and the validity of the idea (that CBI lowers inflation)[12].

There are two moments in which ideas are relevant. One is in informing beliefs when experience is not available. When a policy constitutes a policy innovation and, therefore, there is no experience on which to base expectations about outcomes, the choice of the new policy is only informed by economists' ideas. But ideas may also influence the way in which experience is analyzed and remain prominent all throughout the updating process.

Consider the following scenarios

(i) The scenario below depicts the process of rational learning and rational choice.

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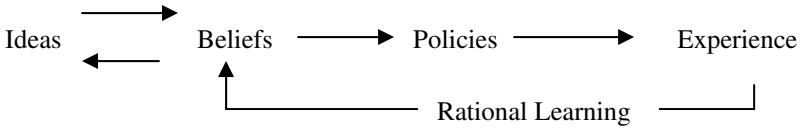
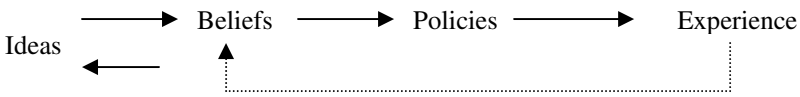
[11] Woods also make a distinction between ideas and beliefs. Following Sartori, he argues that "ideas are subject to thinking, verification and logic whereas beliefs might be said to be (…) "ideas no longer thought about" (p. 162).

[12] I keep the story sketchy for the sake of clarity, but note that the evaluation of the idea in contingent on the responsibility that the government attributes to the policy for the outcome. Also, note that the decision to abandon or continue under a policy is contingent on the government's evaluation of the alternative status (not having an independent Central Bank).



Take ideas as the starting point. Ideas inform beliefs and a policy is chosen on the basis of those beliefs. After applying the policy, some results are observed and beliefs are updated rationally. There is also a feedback between updated beliefs and ideas. When results match prior beliefs, the updating process leaves beliefs unaltered, hence validating the idea. The same happens if results are better than expected. If results are worse, beliefs will be revised downwards and the validity of the idea called into question. This scenario predicts that policies that succeed will continue (expected successes) and that policies that fail will be abandoned (unexpected failures). Note that, since policy choice is a comparative exercise, abandoning an idea that unexpectedly performs badly is subject to the existence of an alternative that performs better.

(ii) The scenario below depicts the situation in which ideas inform beliefs, a policy is chosen and some results are observed. However, the updating of beliefs proceeds by ways other than Bayesian rule (broken arrow). As I explained in section 8.2, rational learning is just one way in which experience may be processed. According to psychological accounts, the updating process is commonly ruled by cognitive biases that affect the feedback between experience and beliefs, hence between beliefs and ideas. For instance, a government may disregard some experience because the source of it is considered unreliable or irrelevant. Or a government may only be sensitive to failures but not successes or the other way round. Finally, a government may persevere on a policy that gives bad results until bad becomes "too bad" according to its aspiration levels. Therefore, biases in the processing of information may result in "irrational" choices.

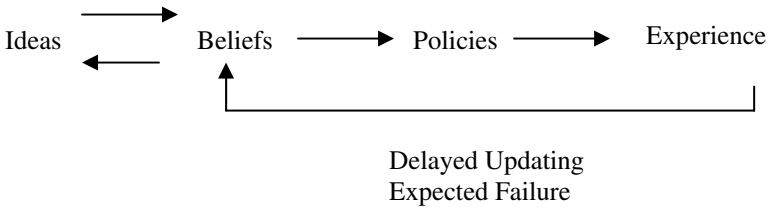


(iii) There is still a distinctive and interesting scenario in which policies persist because ideas prevail over experience and dictate a particular interpretation of it. As before, consider the situation in which ideas inform beliefs, a policy is chosen and some results are observed. Specifically, consider the situation in which these results are bad. If rational learning dominates the process, bad experience would lead to a downward revision of beliefs, a questioning of the idea in which the prior belief was based and its subsequent abandonment. But this cycle gets interrupted if (1) ideas envisage that only experience gathered some time in the future is relevant for assessing those ideas and (2) if ideas envisage bad outcomes in the first place. Under (1), learning is delayed or updating is postponed. Under (2), updating of beliefs takes place, but since bad results are expected and justifiable in purely ideational terms, the updating only reinforces the validity of the ideas causing their continuity (expected failure). Note that updating is rational. Yet, policy persistence cannot be explained if only rational learning is considered. One needs ideas to make sense of this outcome. There is nothing idiosyncratic in this scenario. It is ideas, not any particular cognitive bias, what causes persistence[13]. Finally, note that this scenario is puzzling as long as there is an alternative policy that performs better.

[13] These scenarios are not exhaustive. It may still occur that governments are dogmatic, hence disregarding any experience. In this case, the learning component of the cycle is simply missing:

Ideas → Beliefs → Policy

The opposite situation portrays governments as adaptive learners. Governments may randomly drift adjusting their expectations to past results without supporting their decisions in any means-ends relationship. In this case, the ideational component is the missing part of the cycle:



In sum, the scenario (ii) is a scenario of non-rational learning. Scenarios (i) and (iii) are scenarios of rational learning and rational choice. Yet, the outcome of the updating process is in sharp contrast. Under scenario (i), persistence in a policy that gives bad results is only rational if there is no an alternative that performs better. Under scenario (iii) there may be an alternative that performs better and still a government may persevere in a policy that gives worse results if, in the light of some idea, failures are interpreted as successes.

The adoption of market-oriented reforms is a good illustration of the difficulties that extant ideational models face when it comes to explaining the introduction of policies that entail major institutional changes, unclear *ex-ante* winners and losers and an electoral appeal close to nil. Market-oriented reforms also provide an instance of the mechanism of policy persistence based on ideas depicted in scenario (iii).

Central to the neo-liberal program is the idea that things have to get worse before they get better, or in other words, that results are intertemporal.

As Przeworski (1991: 136) has stated "such reforms necessarily cause a temporary fall in aggregate consumption (…). Inflation must flare up when prices are deregulated. Unemployment of capital and labor must increase when competition is intensified. Allocative efficiency must temporarily decline when the entire economic structure is being transformed".

Experience → Policies ↔ Experience

And he adds "[g]iven that market-oriented reforms inevitably entail a transitional decline in consumption, it is not apparent how to judge their success" (1993: 3 in Bresser et. al.).

The same author refers the story of pro-reform politicians in Eastern Europe assessing the success of the reforms in terms of how much unemployment the reforms created. For the Chechoslovak finance minister, Vladimir Dlouhy, if unemployment failed to rise to 8 and 10 % following the reforms "it would be a sign that the reforms were not working" (pp. 2-3). In the same vein, the Polish Prime Minister, Tadeuz Mazowiecki, stated that "there is no example in the economic history of the world of inflation being squelched without serious social difficulties, including bankruptcy of some enterprises and the unemployment associated with it" (pp. 142-143).

Also, the view that structural reforms are long-term projects that bear fruit only sometime in the future is widespread among practitioners and politicians alike[14]. Jose Pinera, a central character in the Chilean experiment, stated that "the results of many worthwhile reforms lie on a J-curve: they tend to make things a good deal worse before they get better" (1994: 227). Leszek Balcerowicz (1994: 174), responsible for the reform program in Poland, asserted that "the introduction of privatization could not have positively influenced the economic situation in these years because of the lags between privatization and the change in economic performance of affected enterprises". Ibrahim Babangida (1996: 233) under whom reforms were launched in Nigeria, described structural adjustment as a "process rather than an end-state or a program which must be concluded and terminated after three or five years" and he described that process as "no easy path" (p. 201). And Vaclav Klaus, responsible for

[14] Whether this is correct is another issue. Przeworski qualifies this model as "a mixture of evidence, argument from first principles, self-interest and wishful thinking" (p. 40). Market reforms do make things worse in the short-run but the extent to which short-run sacrifices translate into long-term growth is theoretically weak and empirically mixed. See also Murrell (1991), Bresser et. al. (1993) and Rodrik (1996) for a critique of the J-curve idea.

launching reforms in Czechoslovaquia, described privatization as a process that "takes years to complete" (1997: 53).

Because the dynamics of these reforms anticipate bad results and they are regarded as temporal and even necessary, it is perfectly rational for governments to persevere in market policies. Moreover, note that even if these transitional effects last more than expected, as it is usually the case[15], it is still rational for governments to persevere in those policies as long as they consider that there is no alternative. If that is the case, choice of policy is no longer a comparative exercise.

8.5. Concluding Remarks

In Chapter I, I argued that policy convergence might have been caused either by learning, emulation, external imposition or ideas. I tested the first three mechanisms of policy diffusion explicitly, taking ideas as a background mechanism of convergence to be assessed by default.

Also, in the introductory Chapter, I contended that the pattern of policy choices overtime reveals information about the mechanisms of choice at work. It is now the moment to put together the patterns of choice I hypothesized there (figure 1.1) with the observed patterns (figure 7.1) and with the statistical results I have obtained in this study (tables 7.2, 7.3, 7.5 and 7.6).

I reproduce figure 1.1 below.

Had neo-liberal ideas played the role of "meteorites hitting the system", the expected pattern of choices should resemble figure (a), that is, a fast and radical jump in the number of reformers following the introduction of the neo-liberal blueprint. Convergence due to learning, emulation or coercion would have entailed a pattern of policy choices as in (b), thus, a gradual convergence. Finally, when policy choices are driven by domestic

[15] Which is usually the case. Mexico only grew six years after the launching of its reform program. Something similar happened in Bolivia. Chile resumed growth only in the second half of the 1980s.

factors, the expected pattern of choices is one of divergent choices, as reflected in figure (c).

The results of this study reveal that there is hardly any room for a strong argument of the power of ideas, reflected in figure (a). This version of the power of ideas entails that ideas are both necessary and sufficient to produce policy switches. Yet, none of the market policies I surveyed exhibited this dynamics. Therefore, this version of the power of ideas is clearly rejected.

In the case of trade liberalization and privatization, patterns of choices resembled figure (b). Decisions to enter into agreements with the IMF followed a less steady path of convergence, concentrated around specific moments and followed by periods of divergence. The observed patterns of diffusion and the statistical results confirmed that the decision to switch to these policies was caused by learning in the case of IMF agreements, learning and emulation in the case of privatization and learning, emulation and coercion in the case of trade liberalization.

Given these results, only a softer version of the power of ideas can be applied to these three policy decisions. The Washington Consensus was, at best, necessary because policy change required the existence of an alternative and the Consensus provided it. Also, the existence of this set of ideas helped to show that market-policies were based on reason. But it was mostly experience, not any intrinsic feature of neo-liberal ideas, what drove the switch to these policies.

Finally, the decision to grant independence to Central Banks resembled the pattern of diffusion depicted in figure (c). This is a pattern of non-convergence. Given that none of the three mechanisms of diffusion explicitly tested turned out to be significant, this pattern is not surprising.

Also in this case, only a soft version of the power of ideas argument may apply. As reviewed in Chapter III, this is a version in which the adoption of independent Central Banks may have been mediated by local administrative structures, or by domestic constellation of interests or other institutional features of the polity.

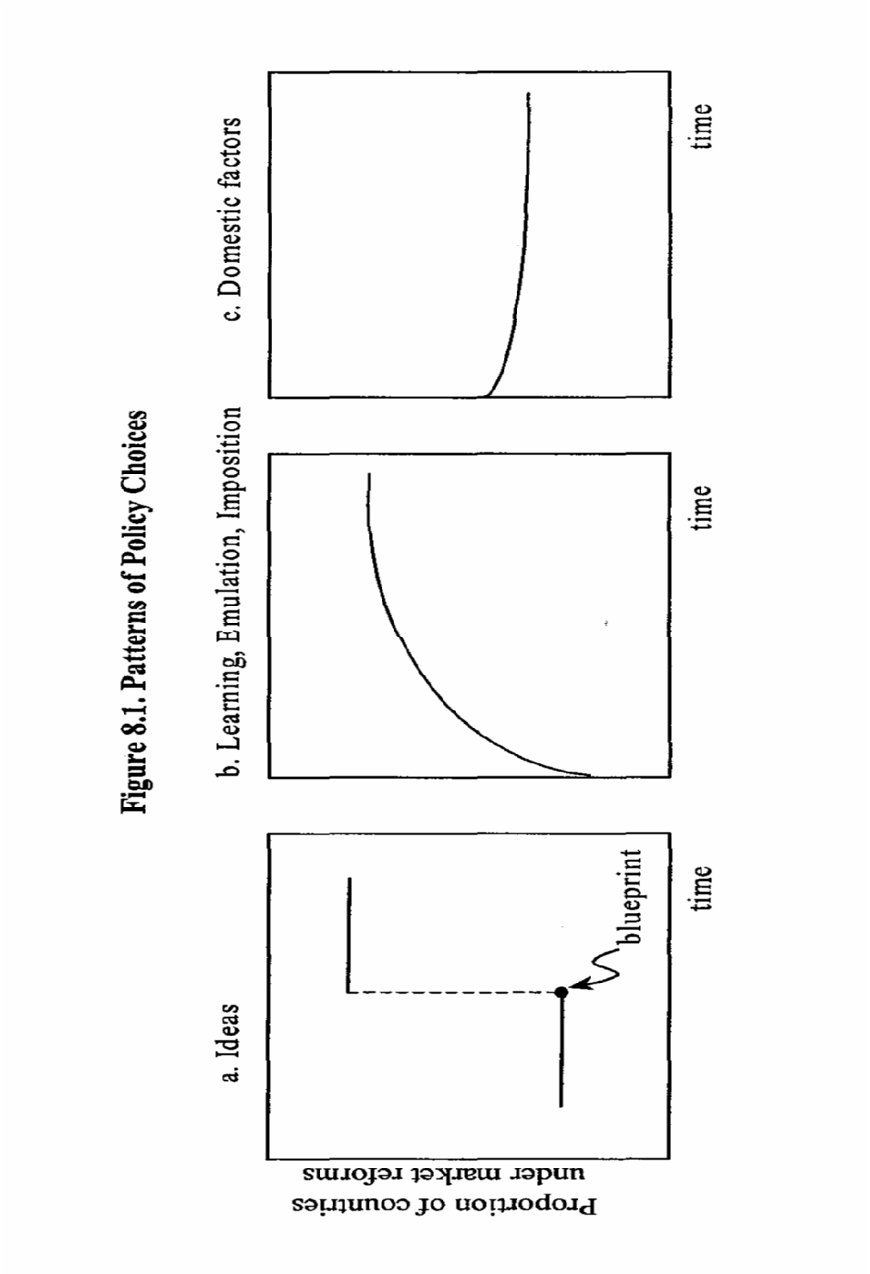


Figure 8.1. Patterns of Policy Choices
a. Ideas
b. Learning, Emulation, Imposition
c. Domestic factors
blueprint
time
time
time
Proportion of countries
under market reforms

Note finally that this pattern of policy choices is also compatible with an explanation based on learning, but not of the Bayesian type. When politicians do not analyze experience in a rational way and, instead, cognitive biases interfere in the processing of information, the same experience leads to different interpretations and, hence, to different policies choices. This is precisely what happened in the decision to adopt an independent monetary authority.

In sum, regarding the decision to switch to these market-oriented reforms, experience prevailed over ideas, which leaves the latter a subsidiary but still relevant role. While a "necessary and sufficient" version of the power of ideas is untenable, "a necessary but not sufficient" role in policy change is much harder to dismiss.

However, ideas prevailed over experience in the decision to remain under market-oriented reforms. As I argued, the neo-liberal program synthesized in the Washington Consensus "is one of destroying before building" (Przeworski, 1999: 10). When experience under these policies is evaluated in the light of such belief, the updating process may be delayed, governments may not act as Bayesian learners and still, they may make rational decisions. The decision to continue makes even more sense if an alternative model does not exist or if it is viewed as not viable. Both facts together can explain continuity.

Of course, other explanations of continuity under market-oriented reforms may apply. Actually, the voluminous research on what makes reforms endure[16] suggests that ideological conviction may be necessary but, again, not sufficient for reforms to remain in place. As I argued in the case of privatization, some reforms may continue thanks to the creation of basis of support among broad sectors of the population. Also, these reforms entail institutional changes hard to reverse at low political costs such as the creation of an independent central bank or the decision to privatize. Yet, governments committed to market reforms may

[16] See footnote 4 in Chapter I

witness their reversal due to the failure of adjustment to improve the welfare of the majority and generate popular support.

Given the methodology employed in this study, the volume of non-tested alternative hypothesis and the unclear theoretical debate about what a genuine argument of the power of ideas would entail, any claim concerning the impact of economic ideas on policy choice has to be necessarily cautious. Having said that, this research envisages a necessary but not sufficient role for economic ideas that, at least in the case of the Washington Consensus, has been more prominent in policy continuity than in policy change.

Finally, as a first cut on the elusive question of learning, this study leaves considerable room for improvements at methodological and theoretical levels. Methodologically speaking, dropping some assumptions of the Bayesian learning model would probably imply notable gains in realism[17]. At a theoretical level, the aggregate research design employed here could answer the question as to whether "we are all Bayesians" (Stiglitz, 1999). However, the global answer to this global question may hide interesting variations concerning *how* learning takes place that may call for different research designs. Hopefully, this research is suggestive enough to motivate new studies.

[17] Particularly, I think that dropping the assumption of independent samples over time would be very illuminating. Also, it would be interesting to experiment with data structures to minimize the impact of prior beliefs on the updating process. See Chapter II for details.

BIBLIOGRAPHY

Adler, E., and P. M. Haas. 1997. Conclusion: Epistemic Communities, World Order and the Creation of a Reflective Research Program. In *Knowledge, Power and International Policy Coordination*, ed. P. M.Haas, 367-90. Columbia: University of South Carolina Press.

Alesina, A. 1988. Macroeconomics and Politics. In S Fischer (ed) *NBER Macroeconomics Annual*. Cambridge: MIT Press.

Alvarez et. al. 1997. ACGLPV. *World Political and Economic Database.*

Amemiya, T. 1985. *Advanced Econometrics*. Cambridge, Massachusetts: Harvard University Press.

Appel, H. 2000. The Ideological Determinants of Liberal Economic Reform. The case of Privatization. *World Politics*, 52(July): 520-49.

Baizan, C. 1994. *Desde el Poder. Carlos Menem Responde.* Corregidor: Buenos Aires.

Balassa, B. 1980. The Process of Industrial Development and Alternative Development Strategies. *Essays in International Finance*, no 141. Princeton: New Jersey.

Balassa, B. 1988. Outward Orientation. Chenery, H and T. N. Srinivasan eds *Handbook of Development Economics*, vol II. New York: Elsevier Science Publishers.

Bagheri, F and N. Habibi. 1998. Political Institutions and Central Bank Independence: A Cross Country Analysis. *Public Choice*; 96(1-2): 187-204.

Basu, K. 1993. Comment on "Two Strategies for Economic Development: Using Ideas and Producing Ideas" by Romer.

Proceedings of the World Annual Bank Conference on Development Economics. The International Bank for Reconstruction and Development.

Bates, R and A. Krueger. 1993. Political and Economic Interactions in Economic Policy Reform: Evidence from Eight Countries. Oxford, UK : Cambridge, Mass. : Blackwell, 1993.

Bennett, C. 1991. What is Policy Convergence and what Causes it? *British Journal of Political Science*, 21(2): 215-233.

Bennett, C and M Howlett. 1992. The Lessons of Learning: Reconciling Theories of Policy Learning and Policy Change. *Policy Sciences*, 25: 275-294.

Berger, J. O. 1985. *Statistical Decision Theory and Bayesian Analysis*. second ed. New York: Springer-Verlag, 1980. Reprint. New York: Springer- Verlag.

Berger, H, J de Haan and S Eijffinger. 2000. Central Bank Independence: An Update of Theory and Evidence. CESifo Working Paper, no 255, http://www.CESifo.de.

Bermeo, N. 1990. The Politics of Public Enterprise in Portugal, Spain and Greece. In Suleiman, E and J. Waterbury (ed) *The Political Economy of Public Sector Reform*, 113-136. Boulder: West View Press.

Bernhard, W. 1998. A Political Explanation of Variations in Central Bank Independence. *American Political Science Review*; 92(2): 311-27.

Bertrand, J. 1998. Growth and Democracy in Southeast Asia. *Comparative Politics*. April.

Bhagwati, J. 1985. Trade Regimes in Gene Grossman ed Dependence and Interdependence. *Essays in Development Economics*, vol II. Oxford: Blackwell Basil.

Biersteker, T. J. 1995. The Triumph of Liberal Economic Ideas in the Developing World. In *Global Change, Regional Response. The New International Context of Development*, ed. B. Stallings, 174-96. Cambridge: Cambridge University Press.

Birsch, M and J Haar (eds). 2000. *The Impact of Privatization in the Americas*. North-South Center: University of Miami Press.

Bjork, James. 1995. *The Uses of Conditonality. Poland and the IMF*. East European Quarterly, XXIX(1): 89-120.

Blyth, M. M. 1997. Any More Bright Ideas? The Ideational Turn of Comparative Political Economy. *Comparative Politics* 29(2): 229-50.

Bresser, L. C., J. M Maravall and A. Przeworski. 1993. *Las Reformas Economicas en las Nuevas Democracias*. Alianza Editorial: Madrid.

Broz, L. 1999. *Political Institutions and the Transparency of Monetary Policy Commitments*. Ms.

Brune, N and G Garrett. 2000. *The Diffusion of Privatization in the Developing World*. Yale University. Ms.

Buttary, J. 1994. A Review of Economic Policies and Strategies for Trade and Industrialization in Central America in de Alonso, Irma ed *Trade Industrialization and Integration in 20th Century Latin America*. Westpoint: Praeger.

Bruton, H. 1989. Import Substitution in Chenery H and T. N. Srinivasan eds *Handbook of Development Economics*, vol II,. Elsevier Science Publishers B.V.

Celarier, M. 1996. Privatization: A Case Study in Corruption. *Journal of International Affairs*. 50(2): 531-543.

Chiluba, F. 1996. *Democracy. The Challenge of Change*. Multimedia Publications: Lusaka.

Clark, W. R. 1994. Party Structure, Regime Stability and the Governmental Supply of Central Bank Independence. Ms.

Colander, D., and A. W. Coats. 1993. *The Spread of Economic Ideas*. Cambridge: Cambridge University Press.

Collins, J and J Lear. 1995. *Chile's Free-Market Miracle: A Second Look*. Oakland, Calif: Food First.

Coyle, R. G. 1972. *Decision Analysis*. London: Nelson.

Cukierman, A and Francesco Lippi. 1999. Central Bank Independence, Centralization of Wage Bargaining, Inflation and Unemployment: Theory and Some Evidence. *European Economic Review*, 43(7): 1395-1434.

Cukierman, A and S Webb. 1995. Political Influence on the Central Bank: International Evidence. *The World Bank Economic Review*, 9(3): 397-423.

Cukierman, A, S. Webb and B. Neyapti. 1992. Measuring the Independence of Central Banks and its Effects on Policy Outcomes. *The World Bank Economic Review*, 6(3): 353-398.

De Haan, J and W J Kooi. 2000. Does Central Bank Independence really Matter? New Evidence for Developing Countries Using a New Indicator. *Journal of Banking and Finance* 24: 643-664.

Denzau, A and D. North. 1994. Shared Mental Models: Ideologies and Institutions. *Kyklos*. Vol 47: 3-31.

Dolowitz, D and D. Marsh. 2000. Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making. *Governance*, 13 (1): 5-24.

Drazen, A. 2000. *Political Economy in Macroeconomics*. Princeton: Princeton University Press.

Edwards, S. *Trade and Industrial Policy Reform in Latin America*. National Bureau of Economic Research, Working Paper No 4772

Eijffinger, S and J de Haan. 1995. The Political Economy of Central Bank Independence. Ms.

Esser, J. 1998. Privatization in Germany: symbolism in the Social Market Economy? In Parker (ed) *Privatisation in the European Union* 101-121. Routledge: London.

Etheredge, L. 1981. Government Learning: An Overview in S. L. Long. ed*., The Handbook of Political Behavior*, 2, New York: Pergamon.

Fishlow, A. 1990. The Latin American State. *Journal of Economic Perspectives*, 4(3): 61-74.

Forder, J. 1998. Central Bank Independence- Conceptual Clarifications and Interim Assessment. *Oxford Economic Papers*, 50(3), July 1998:307-334.

Forder, J. 1999. Central Bank Independence: Reassesing the Measurements. *Journal of Economic Issues*; 33(1): 23-40.

Frankfurter, G and H. E. Phillips. 1995. *Forty Years of Normative Portfolio Theory: Issues, Controversies and Misconceptions*. London: Jay Press Inc.

Gardenfors, P and N. Sahlin. 1997. *Decision, Probability and Uncertainty*. Cambridge: Cambridge University Press.

Gardenfors, P., and N. Sahlin. 1997a. Introduction: Bayesian Decision Theory Foundations and Problems. In *Decision, Probability and Utility*, eds. P. Gardenfors, and N. Sahlin, 1-181. 1997 ed. Cambridge: Cambridge University Press.

Gardenfors, P., and N. Sahlin. 1997b. Unreliable Probabilities, Risk Taking and Decision Making. In *Decision, Probability and Uncertainty*, eds. P. Gardenfors, and N. Sahlin, 313-34. 1997 ed. Cambridge: Cambridge University Press.

Garrett, G, M Guillen and Kogut.2000. Privatization Around the World. Yale. Ms

Gelman, A., J. B. Carlin, H. S. Stern, and D. B. Rubin. 1995. *Bayesian Data Analysis*. London: Chapman and Hall.

Gerber, A., and D. P. Green. July 1998. Rational Learning and Partisan Attitudes. *American Journal of Political Science* 42(3): 794-818.

Gereffi, G and D. Wyman. 1991. *Manufacturing Miracles. Paths of Industrialization of Latin America and East Asia.* Princeton: Princeton University Press.

Goldstein J and R Keohane (eds). 1993. *Ideas and Foreign Policy. Beliefs, Institutions and Political Change*. Ithaca: Cornell University Press.

Goodman, J B. 1991. The Politics of Central Bank Independence". *Comparative Politics*, 23(3):329-349.

Ghosh, B. N. (ed). 2000. *Privatisation. The Asean Connection*. New York: Nova Science Publishers.

De Groot, M. 1970. *Optimal Statistical Decisions*. New York: McGraw-Hill.

Grindle, M and J. Thomas. 1991. *Public Choices and Policy Change*. The John Hopkins University Press: Baltimore.

Haas, P. 1992. Introduction: Epistemic Communities and International Policy Coordination. *International Organization* 46(1): 1-35.

Haas, P. M., and E. B. Haas. 1995. Learning to Learn: Improving International Governance. *Global Governance* 1: 255-85.

Haas, P. M. 1997. Introduction: Epistemic Communities and International Policy Coordination. In *Knowledge, Power and International Policy Coordination*, ed. P. M. Haas, 1-35. Columbia: University of South Carolina Press.

Hacking, I. 1997. Slightly More Realistic Personal Probability. In *Decision, Probability and Uncertainty*, eds. P. Gardenfors, and N. Sahlin, 118-135. 1997 ed. Cambridge: Cambridge University Press.

Haggard, S. 1990. *Pathways from the Periphery. The Politics of Growth in the Newly Industrial Countries*. Ithaca: Cornell University Press.

Haggard, S and R. Kaufman, eds. 1992. *The Politics of Economic Adjustment: International Constraints, Distributive Conflicts, and the State* (Princeton: Princeton University Press.

Haggard, S and S. Webb (eds). 1994. *Voting for Reform. Democracy, Political Liberalization and Economic Adjustment*. Oxford University Press: New York.

Hall, P. 1986. *Governing the Economy. The Politics of State Intervention in Britain and France.* New York: Oxford University Press.

Hall, P. 1989. *The Political Power of Economic Ideas. Keynesianism Across Countries*. Princeton: Princeton University Press.

Hall, P. 1993. Policy Paradigms, Social Learning and the State. The Case of Economic Policy Making in Britain. *Comparative Politics* 25(3): 275-96.

Hall, P. 1994. Central Bank Independence and Coordinated Wage Bargaining: Their Interaction in Germany and Europe. *German Politics and Society*, 31: 1-23.

Harrington, J. E. 1993. Economic Policy, Economic Performance and Elections. *The American Economic Review*, 53(1): 27-42.

Harrison, A and A Revenga. 1995. The Effects of Trade Policy Reform. What do We Really Know? *NBER Working Paper Series*.

Harberger, A. 1993. Secrets of Success: A Handful of Heroes. *The American Economic Review* 83(2): 343-50.

Heclo, H. 1974. *Modern Social Politics in Britain and in Sweden*. New Haven: Yale University Press.

Hirschman, A. 1982. *Shifting Involvements. Private Interest and Public Action*. Princeton: Princeton University Press.

Hodge, G. 2000. *Privatization: an International Review of Performance*. Boulder: West View.

Hojman, D. 1996. Poverty and Inequality in Chile: Are Democratic Politics and Neoliberal Economics Good for You? *Journal of Interamerican Studies and World Affairs*. Summer Fall.

Hood, C. 1994. *Explaining Economic Policy Reversals*. Buckingham. Philadelphia: Open University Press.

Howlett, M. and M. Ramesh. 1993. Patterns of Policy Instrument Choices: Policy Styles, Policy Learning and the Privatization Experience. *Policy Studies Review*, 12(1/2): 1-24.

Hulsink, W and H. Schenk. 1998. Privatization and deregulation in the Netherlands. In Parker (ed) *Privatization in the European Union*, 242-258. Routledge: London.

IMF World Economic and Financial Surveys. 1992. *Issues and Developments in International Trade Policy.*

Ikenberry, J. 1990. The International Spread of Privatization Policies: Inducements, Learning and Policy Bandwagoning in Suleiman, E and J. Waterbury (eds) *The Political Economy of Public Sector Reform and Privatization*. London: Westview Press, 88-110.

Jacobsen, J. K. 1995. Much Ado About Ideas. The Cognitive Factor in Economic Policy. *World Politics* 47(January): 283-310.

Jervis, R. 1976. *Perception and Misperception in International Politics*. Princeton: Princeton University Press.

Kahler, M. 1990. Orthodoxy and Its Alternatives: Explaining Approaches to Stabilization and Adjustment. In J. Nelson (ed) *Economic Crisis and Policy Choice*, , 33-62. Princeton: Princeton University Press.

Kahler, M. 1992. External Influence, Conditionality, and the Politics of Adjustment in Haggard and Kaufman (eds). *The Politics of Economic Adjustment*, 89-138, Princeton University Press: Princeton.

Kahneman, D., and A. Tversky. 1997. Prospect Theory: An Analysis of Decision Under Risk. In *Decision, Probability and Uncertainty*, eds. P. Gardenfors, and N. Sahlin, 183-214. 1997 ed. Cambridge: Cambridge University Press.

Kalyvas, S. 1994. Hegemony Breakdown: The Collapse of Nationalization in Britain and France. *Politics and Society*, 22(3): 316-348.

Kaufmann D and P. Siegelbaum. 1996. Privatization and Corruption in Transition Economies. *Journal of International Affairs*, 50(2): 419-459.

Keeler, J. T. 1993. New Perspectives on Democratic Reform. *Comparative Political Studies*, 25(4): 427-432.

Klaus, V. 1997. *Renaissance*. Cato Institute: Washington.

Krueger, A. 1983. Trade Strategies, Growth and Employment in Anne O Krueger *Trade and Development in Developing Countries*, vol III. Chicago: The University of Chicago Press.

Krueger, A. 1984. Trade Policies in Developing Countries in R.W. Jones and P. B. Kenen eds *Handbook of International Economics*, vol 1. New York: Elsevier Science Publishers.

Krueger, A. 1985. Import Substitution vs. Export Promotion. *Finance and Development*. June.

Krueger, A. *Political Economy of Policy Reform in Developing Countries*. The MIT Press: Cambridge Massachusetts.

Krueger, A. O. March 1997. Trade Policy and Economic Development: How We Learn? *The American Economic Review* 87(1): 1-22.

Leamer, E. E. 1991. A Bayesian Perspective on Inference From Macroeconomic Data. *Scandinavian Journal of Economics* 93(2): 225-48.

Lee, P. M. 1997. *Bayesian Statistics*. An Introduction. Second ed. London: Arnold.

Legro, J. 2000. The Transformation of Policy Ideas. *American Journal of Political Science*, 44 (3): 419-432.

Levy, J. 1994. Learning and goreign policy: sweeping a conceptual minefield. *International Organization* 48 (2): 279-312.

Lieberman, I. 1994. Privatization in Latin America and Eastern Europe in the Context of Political and Economic Reform.

Lora, E. 1997. *Una decada de Reformas Estructurales en America Latina: Que se ha Reformado y como Medirlo*. Interamerican Development Bank Working Paper, 348.

Lordon, F. 1998. The Logic and the Limits of Desinflation Competitive. *Oxford Review of Economic Policy*, vol 14(1): 96-113.

Maloney, W. 1994. Privatization with Share Diffusion: Popular Capitalism in Chile, 1985-1988. In Baer and Birch (ed) *Privatization in Latin America. New Roles for the Public and the Private Sectors.* 135-162. London: Praeger.

Mangano, G. 1998. Measuring Central Bank Independence: A Tale of Subjectivity and of its Consequences. *Oxford Economic Papers*; 50(3): 468-92.

Manzetti, L. 1999. *Privatization South America Style*. Oxford: Oxford University Press

Maravall, J. 1997. M. *Regimes, Politics and Markets. Democratization and Economic Change in Southern and Eastern Europe*. Oxford: Oxford University Press.

March, J. G. 1978. Bounded Rationality, Ambiguity, and the Engineering of Choice. *Bell Journal of Economics* 9: 587-608.

March, J. G., and J. P. Olsen. 1989. The Uncertainty of the Past: Organizational Learning Under Ambiguity. In *Decisions and Organizations*, ed. J. G. March, 335-58. Oxford: Basil Blackwell.

Mark, M. 1993. *The Political Logic of Privatization. Lessons from Great Britain and Poland*. Praeger: London.

Maxfield, S. 1997. *Gatekeepers of Growth : the International Political Economy of Central Banking in Developing Countries*. Princeton, NJ : Princeton University Press, c1997

May, P. 1992. Policy Learning and Failure. *Journal of Public Policy*, 12(4): 331-354.

Meier, G. 1990. Trade Policy, Development and the New Political Economy in Krueger and R. Jones eds *The Political Economy on International Trade*. New York: Basil Blackwell.

Menem, C. 1990. *La Esperanza y la Accion.* Emece Editores: Buenos Aires.

Meseguer, C. 1998. Decisiones e Incertidumbre. Discusion Metodologica y Una Aplicacion. Ms

Meyer, J. 1987. Two Moment Decision Models and Expected Utility Maximization. *American Economic Review*, vol 77, No 3, pp 421-430.

Michaely, M Papageorgiou, D and Choksi A (ed). 1991. *Liberalizing Foreign Trade*. Cambridge, MA: B. Blackwell.

Murrell, P. 1991. Can Neoclassical Economics Underpin the Reform of Centrally Planned Economies? *Journal of Economic Perspectives* 5(4), Fall: 59-76.

Naim, M. 1993. *Paper Tigers and Minotaurs. The Politics of Venezuela's Economic Reforms.* Carnagie Endowment Book: Washington.

Nash, J, Edwards, S and Vinod, T. 1991. *Best Practices in Trade Policy Reform*. Oxford: Oxford University Press.

Nash, J and W Takacs. 1998. *Trade Policy Reform. Lessons and Implications*. World Bank Regional and Sectoral Studies.

Nelson, J. (ed). 1990. *Economic Crisis and Policy Choice*. Princeton: Princeton University Press.

Nelson, J. (ed). 1994. *A Precarious Balance*. International Center for Economic Growth and Overseas Development Council: San Francisco, vol I and II.

Nogues, J and S Gulati. 1994. Economic Policies and Performance under alternative trade regimes: Latin America during the 1980s. *World Economy*, 17: 467-96.

North C, D. 1994. Economic Performance Through Time. *The American Economic Review* (June): 359-68.

Notermans, T. 1999. Policy Continuity, Policy Change and the Political Power of Economic Ideas. *Acta Politica*, 1: 22-48.

Oatley, T. 1999. Central Bank Independence and Inflation: Corporatism, Partisanship and Alternative Indices of Central Bank Independence. *Public Choice*; 98(3-4): 399-413.

OECD. 1996. *Privatisation in Asia, Europe and Latin America*. Paris.

Odell, J. S. 1982. *U.S International Monetary Policy. Markets, Power and Ideas As Sources of Change*. Princeton: Princeton University Press.

Oppenheim, L. 1993. *Politics in Chile: Democracy, Authoritarianism and the Search for Development.* Boulder: Westview.

Parker, D. 1998a. Introduction. In Parker (ed) *Privatization in the European Union. Theory and Policy Perspectives*. 1-9. London: Routledge.

Parker, D. 1998b. Privatization in the European Union. An Overview. In Parker (ed) *Privatization in the European Union. Theory and Policy Perspectives*. 10-46. London: Routledge.

Pericchi, L. R. n.d. "Analisis De Decision, Inferencia y Prediccion Estadistica Bayesiana.". Ms.

Pierson, P. 1993. When Effect Becomes Cause. Policy Feedback and Political Change. *World Politics* 45(July): 595-628.

Pitelis, C. and T. Clarke. 1994. The Political economy of Privatization. In Pitelis and Clarke (ed) *The Political Economy of Privatization*. 1-Routledge: London.

Posen, A. 1993. Why Central Bank Independence Does not Cause Low Inflation: There is No Institutional Fix for Politics, in R. O'Brien (ed) *Finance and the International Economy*: 7, Oxford: Oxford University Press.

Privatisation Yearbook. 1994, 1995, 1996, 1997, 1998, 1999, 2000. London: Privatisation International.

Przeworski, A. 1991. *Democracy and the Market*. Cambrige University Press: Cambridge.

Przeworski, A. 1992. The Neoliberal Fallacy. *Journal of Democracy*, 3 (3), July: 45-59.

Przeworski, A. 1999. *Choices and Echoes: Stability and Change of Economic Policy Regimes*. Ms. New York University.

Przeworski, A. 1999. *Stability and Change of Policy Regimes*. Ms. New York University

Przeworski, A., and J.R. Vreeland. 1999. "The Effect of IMF Programs on Economic Growth". Department of Politics, New York University, Ms.

Quattrone, G. A., and A. Tversky. 1988. Contrasting Rational and Psychological Analysis of Political Choice. *American Political Science Review* 82(3): 719-36.

Raiffa, H. 1972. *Decision Analysis. Introductory Lectures on Choices under Uncertainty*. Reading: Addison-Wesley.

Ramamurti, R. 1999. Why Haven't Developing Countries Privatized Deeper and Faster? *World Development*, 27(1): 137-155.

Ramirez, M. 1994. Privatization and the Role of the State in Post-ISI Mexico. In Baer and Birch (ed) *Privatization in Latin America. New Roles for the Public and the Private Sectors.* 21-44. London: Praeger.

Remmer, K. 1986. The Politics of Economic Stabilization. IMF Standby Programs in Latin America 1954-1984. *Comparative Politics*. October (?).

Richards, Donald G. 1997. The Political Economy of the Chilean Miracle. *Latin American Research Review*, 32 (1): 139-159.

Robinson, J. 1995. Theories of Bad Policy. *Policy Reform*, Vol 1:1-44.

Rodrik, D. 1992. The Rush to Free Trade in the Developing World. *NBER. Working paper no 3947*.

Rodrick, D. 1996. Understanding Economic Policy Reform. *Journal of Economic Literature* 34(March): 9-41.

Rose, R. 1991. What Is Lesson-Drawing? *Journal of Public Policy* 2(1): 3-30.

Roundtable Discussion. 1991. Development Strategies: The Roles of the State and the Private Sector. *The International Bank for Reconstruction and Development*.

Rowthorn, B. and H. Chang. 1994. Public Ownership and the Theory of the State in Pitelis and Clarke (ed). *The Political Economy of Privatization*. 54-69. Routledge: London.

Sabatier, P. A., and H. C. Jenkins-Smith. 1993. *Policy Change and Learning. An Advocacy Coalition Approach*. Boulder: Westview Press.

Schamis, H. 1990. Conservative Political Economy and Privatization: Comparative Reflections on Chile and Great Britain. Paper prepared for the Research Conference "The Right in Latin American Democracies" Columbia University, New York.

Schneider, B. 1990.The Politics of Privatization in Brazil and Mexico: Variations on a Statist Theme. In Suleiman, E and J. Waterbury (ed) *The Political Economy of Public Sector Reform*, 319-345. Boulder: West View Press.

Schurman, R. 1996. Chile's New Entrepreneurs and the Economic Miracle: The Invisible Hand or a Hand from the State? *Studies in Comparative International Development*, 31(2): 83-109.

Shafaeddin, M. 1995. The Impact of Trade Liberalization on Export and GDP Growth in Least Developed Countries. *UNCTAD Review*.

Sigmund, P. 1990. Chile: Privatization, Reprivatization, Hyperprivatization. In Suleiman, E and J. Waterbury (ed) *The Political Economy of Public Sector Reform*, 346-363. Boulder: West View Press.

Sikken, B and Jakob de Haan. 1998. Budget Deficits, Monetization and Central Bank Independence in Developing Countries. *Oxford Economic Papers*; 50(3), 493-511.

Simmons, B and Z. Elkins. 2000. Globalization and Policy Diffusion: Explaining Three Decades of Liberalization. Ms.

Smith, W, C. Acuna and E. Gamarra. 1994. *Latin American Political Economy in the Age of Neoliberal Reform*. North-South Center: Miami.

Stallings, B. 1992. International Influence on Economic Policy: Debt, Stabilization and Structural Reform. In *The Politics of Economic Adjustment*, eds. S. Haggard, and R. Kaufman, 41-88. Princeton: Princeton University Press.

Starr, P. 1990. The New Life of the Liberal State: Privatization and the Restructuring of State-Society Relations. In Suleiman, E and J. Waterbury (ed) *The Political Economy of Public Sector Reform*, 22-55. Boulder: West View Press.

Sturzenegger, F and Mariano Tommasi. 1998. *The Political Economy of Reform.* MIT Press: Cambridge.

Stiglitz, J. 1999. Knowledge for Development: Economic Science, Economic Policy and Economic Advice. Annual Bank Conference in Development Economics. Website http://www.worldbank.org.

Stone, D. 1999. Learning Lessons and Transferring Policy Across Time, Space and Disciplines. *Politics*, 19 (1): 51-59.

Suleiman, E. 1990. The Politics of Privatization in Britain and France. In Suleiman, E and J. Waterbury (ed) *The Political Economy of Public Sector Reform*, 113-136. Boulder: West View Press.

Suleiman, E and J. Waterbury. 1990. Introduction: Analyzing Privatization in Industrial and Developing Countries in Suleiman, E and J. Waterbury (ed) *The Political Economy of Public Sector Reform*, 1-21. Boulder: West View Press.

Taylor, L. 1993. *The Rocky Road to Reform: Adjustment, Income Distribution , and growth in the developing world*. Cambridge, Mass: MIT Press.

Tinbergen, J. 1984. Development Cooperation as a Learning Process. In *Pioneers in Developments*, eds. G. M. Meier, and D. Seers, 315-31. Oxford: Oxford University Press.

Tommasi, M and A. Velasco. 1995. *Where are we in the Political Economy of Reform*? C. V. Starr Center for Applied Economics.

Valdes, G. 1995. *Pinochet's Economists*. Cambridge: Cambridge University Press.

Valenzuela, A. 1997. The Chilean Miracle: Lesson of South America's Success Story. *Harvard International Review*, 19(4): 24-27+.

Vickers, J and V. Wright. 1989. The Politics of Privatisation in Western Europe. An Overview in Vickers and Wright (ed) *The Politics of Privatisation in Western Europe*. London: Frank Cass.

Vreeland, J. R. 1999. 'The IMF: Lender of Last Resort Or Scapegoat. Department of Politics, New York University, Ms.

Vreeland, J. R. 2000. "Causes and Consequences of IMF Agreements". PhD Dissertation, NYU Politics.

Wade, R. 1990. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton, N.J. : Princeton University Press.

Waterbury, J. 1993. *Exposed to Innumerable Delusions. Public Enterprise and State Power in Egypt, India, Mexico, and Turkey*. Cambridge: Cambridge University Press.

Weingast, B. 1995. A Rational Perspective on the Role of Ideas: Shared Belief Systems and State Sovereignty in International Cooperation. *Politics and Society*, 23 (4): 449-464.

Weir, M., and T. Skocpol. 1985. State Structures and the Possibilities for the Keynesian Responses to the Great Depression in Sweden, Britain and the United States. In *Bringing the State Back In*, eds. P. B. Evans, D. Rueschmeyer, and T. Skocpol, 107-63. Cambridge: Cambridge University Press.

Westphal, L. 1990. Industrial Policy in an Export-Propelled Economy: Lessons from South Korea's Experience. *Journal of Economic Perspectives*, vol 4, no 3. Summer.

West M and J. P. Harrison .1997. *Dynamic Bayesian Forecasting and Dynamic Models*. New York: Springer Verlag.

Western, B.1998. Causal Heterogeneity in Comparative Research: A Bayesian Hierarchical Modelling Apprach. *American Journal of Political Science* 42(4): 1233-59.

Western, B., and S. Jackman. 1994. Bayesian Inference for Comparative Research. *American Political Science Review* 88(2): 412-23.

Weyland, K. 1996. Risk Taking in Latin America Economic Restructuring: Lessons From Prospect Theory. *International Studies Quarterly* 40: 185-208.

Weyland, K. 1998. The Political Fate of Market Reform in Latin America, Africa and Eastern Europe. *International Studies Quarterly*, 42: 645-674.

Weyland, K. 2000. Conclusions. Unpublished Ms.

1988. *Why Economic Policies Change Course*. Paris: OCDE.

Williamson, J. 1990. *Latin American Adjustment. How much has happened?* Washington DC: Institute for International Economics.

Williamson, J. 1993. Democracy and the "Washington Consensus". *World Development* 21(8): 1329-1280.

Williamson, J., and S. Haggard. 1994. The Political Conditions for Economic Reform. In *The Political Economy of Policy Reform*, ed. J. Williamson, 525-96. Washington: Institute for International Economics.

Willner, J. 1998. Privatisation in Finland, Sweden and Denmark: fashion or necessity. In Parker (ed) *Privatisation in the European Union*, 172-191. Routledge: London.

Winkler, R. L. 1972. *An Introduction to Bayesian Inference and Decision*. New York: Holt.

Woods, N. 1995. Economic Ideas and International Relations: Beyond Rational Neglect. *International Studies Quarterly* 39: 161-80.

World Development Report. 1987.

World Bank Discussion Paper. 1994a. *Trade Policy Reform in Developing Countries since 1985. A Review of the Evidence*. Washington: World Bank.

World Bank. 1994b. *Adjustment in Africa. Reform, Results and the Road Ahead*.

World Bank. 1995. Bureaucrats in Business. The Economics and Politics of Government Ownership. Oxford: Oxford University Press.

World Bank, 1998. *World Bank Privatization Data.* www.world-bank. org.

Wright, V (ed). 1994. *Privatization in Western Europe. Pressures, Problems and Paradoxes.* London: Pinter Publishers.

Yee, A. S. 1996. The Causal Effects of Ideas on Policies. *International Organization* 50(1): 69-108.

Zielinski, J. 1995. Political Parties and Central Bank Autonomy. Ms.