The Political Economy of Hydrocarbon Sector Development Policy: A Comparative Case Study of Argentina, Brazil, and Mexico

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THE POLITICAL ECONOMY OF HYDROCARBON SECTOR DEVELOPMENT
POLICY REFORM: A COMPARATIVE CASE STUDY
OF ARGENTINA, BRAZIL, AND MEXICO

By

John Twichell

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THE POLITICAL ECONOMY OF HYDROCARBON SECTOR DEVELOPMENT POLICY REFORM: A COMPARATIVE CASE STUDY OF ARGENTINA, BRAZIL, AND MEXICO

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In the early-1980s, the rise in international interest rates and subsequent decline in international petroleum prices brought recession and debt crisis to Latin American countries. Economic crisis led to the adoption of neoliberal adjustment measures involving the privatization of state owned enterprises, and the reorientation of production toward the international market. As a result, the institutional and regulatory frameworks of several hydrocarbon producing and exporting countries in the region have undergone varying degrees of change over the last two decades. More recently, a resurgent left in the politics of Latin American countries calls into question the sustainability of orthodox development strategies in this post-Washington consensus era. Unlike other policy areas, hydrocarbon (oil and gas) sector development policy in Latin American countries has shown surprising incongruities throughout the neoliberal and post-neoliberal eras. While scholars in a variety of fields have identified many exogenous determinants of hydrocarbon sector development policy, less attention has been given to domestic factors that shape its variation across cases. This comparative case study emphasizes macroeconomics, state capacity, and reform coalitions as relevant domestic explanatory factors that shape hydrocarbon sector development policy. Empirically, the work is an analysis of variation in economic-sectoral development policy in the cases of Argentina, Brazil, and Mexico during the 1990s; three hydrocarbon producing nations with
diversified economies. In the concluding chapter, the research design’s reliability and validity are reinforced by a treatment of the same analytical framework to these same three country cases during the post-neoliberal period of the 2000s. The research contributes to an established literature in international and comparative political economy that assesses the role of the state as an independent actor engaged in the process of economic transformation and national development in an era defined by integration into globalized market economies.
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Chapter 1 - Introduction

In the broad field of contemporary political science the theory of convergence under conditions of globalization asserts that the capacity of states to govern domestically has been weakened by heightened degrees of cross-border economic interdependence. Related theories of macroeconomic crisis and market reform contend that in times of adjustment governments choose to deregulate national economic sectors and to privatize state owned enterprises (SOEs). Between the extant international and comparative political economy literatures, a number of alternative explanations compete with neoliberal theory¹ to explain economic sector policy choice. This dissertation examines the validity of these competing claims through a comparative analysis of the roles of the state and the market in national hydrocarbon (oil and gas) sector development in Latin America during the 1990s.²

The 1990s in Latin America were characterized by national settings of fledgling democracy and macroeconomic crisis. In these settings, reformist governments contemplated whether to pursue a primary “stage-two” feature of market reform; deregulation of productive economic sectors and privatization of SOEs. For Latin

¹ This dissertation applies the following definition of utopian neoliberal economic theory promoted by University of Chicago economist, Milton Friedman, and outlined by David Harvey (2007): “Neoliberalism is a theory of political economic practices proposing that human well-being can best be advanced by the maximization of entrepreneurial freedoms within an institutional framework characterized by private property rights, individual liberty, unencumbered markets, and free trade… If markets do not exist, then they must be created, by state action if necessary. But beyond these tasks the state should not venture. State interventions in markets (once created) must be kept to a bare minimum because the state cannot possibly possess enough information to second-guess market signals (prices) and because powerful interests will inevitably distort and bias state interventions (particularly in democracies) for their own benefit.” As Harvey (2007) further points out, “we can, therefore, examine the history of neoliberalism either as a utopian project providing a theoretical template for the reorganization of international capitalism or as a political scheme aimed at reestablishing the conditions for capital accumulation and the restoration of class power.” Deregulation and privatization are processes, and Washington Consensus policies, inspired by the neoliberal tenet, that the market is a more effective provider of collective goods than is the state.
² See Montectinos and Markoff (2001) for a survey of the influence of economic ideas in Latin America.
American presidents in power during the 1990s, deregulation and privatization often posed an opportunity to bolster short-term macroeconomic stabilization. For some, privatization and the sale of SOEs held the promise to generate a windfall of revenue badly needed to fund federal government coffers in deficit since the onset of region-wide debt crisis in 1982. Moreover, after the expiration of Keynesian ideas and of the import-substitution industrialization (ISI) development model, the spread of neoliberal ideas led to SOEs being painted as bastions of public sector corruption, inefficiency, and waste, giving further reason to privatize SOEs.

Yet, the empirical record indicates that, among cases of deregulation and privatization proposed by Latin American governments in the early-1990s, this policy choice may be neither as inevitable nor as efficient a process as neoliberals would contend. In Latin American countries, to varying degrees, the state has maintained a presence in national hydrocarbon sector development despite the wave of privatization that swept throughout the region and touched productive and public service sectors in the 1980s and 1990s. In fact, during these two decades, some Latin American countries privatized their hydrocarbon sectors while others did so partially or not at all. Remarkably, this puzzling trend in policy continuity persists beyond Latin America, cross-regionally, in many developed and developing countries, even as the world’s economy has become even more globalized and interdependent. My dissertation thus addresses the following research question: What explains variation in hydrocarbon sector development policy choices among Latin American countries?

In addressing this puzzle, the dissertation contributes to comparative political economy (CPE) empirical research that analyzes cross-national variation in degrees of
reform to productive and public service sectors in Latin American countries (Armijo and Faucher 2002; Baer and Birch 1994; Corrales 2002; Levitsky 2001; Manzetti 1999; Murillo 2002; Schamis 2002; Teichman 2001; Weyland 2002; Williamson 1994). More recent empirical analyses focused on Latin America have further examined the determinants of variation in policy choice surrounding the privatization of such non-tradable sectors as electricity: Murillo (2009); pensions: Madrid (2003), Mesa-Lago (2008), and Brooks (2009); and telecommunications: Rhodes (2006). Yet, of all empirical analyses of late-twentieth century national sectoral market reform that figure prominently in the Latin American CPE literature, the least has been written about hydrocarbons. My work thus broadens the empirical focus and scope of the extant literature.

In line with the above body of empirical CPE works, my analysis of reforms to the hydrocarbon sector in Latin American countries questions the validity of claims that neoliberalism, or ideas promoting market efficiency, are the primary determinant for policymaking. At a glance, neoliberal economic theory appears to overlook the possibility that in certain countries and sectors where state ownership and control has previously been the norm, there may not exist the political will, the institutional capacity, the fiscal stability, nor the mindset required to shift ownership and control so drastically from one set of actors to another. My analytical framework considers causal factors and mechanisms beyond the economic ideas of neoliberalism so influential during the 1990s. By the same token, this study’s theoretical approach is inductive and therefore fact-gathering and theory-building. My approach pursues explanations for observed
variation in hydrocarbon sector development policy choices in the Latin American context.

My analytical framework and hypotheses draw from a number of relevant literatures and problematize structures, institutions, and agents as inter-related determinants of policy choice. For these reasons, my theoretical approach is best classified as historical institutionalist. To test my hypotheses, I deploy the comparative method. My comparative analysis focuses on the country cases of Argentina, Brazil, and Mexico. In these three country cases, there was complete state-control of the hydrocarbon sector until at least the 1980s. Yet, the three cases have taken divergent policy paths since the early-1990s for reasons that have not been previously explained in the literature. This observed variation constitutes the empirical puzzle that inspires my research.

*My project’s contribution to the literature:*

This project contributes to CPE scholarship on market reforms in developing countries and to that on hydrocarbon sector development policy in at least three ways. Theoretically, it does so by advancing the concepts of state capacity and of reform coalitions as determinants of economic-sectoral policymaking. In addition, the project proposes structure of ownership and control (SOC) of the sector as the main indicator of hydrocarbon sector development policy. In quest of this goal, I specify SOC as a proxy for my dependent variable that is both conceptually rich and theoretically grounded, on
the one hand, and operationalizable and thus practical for empirical research, on the other hand.

To illustrate the utility of my analytical framework, I expand the empirical focus of the academic debate involving hydrocarbon sector development policy to Latin America. Latin America is a region with numerous hydrocarbon producing countries that demonstrate observable cross-case variation on level of hydrocarbon exports and on structure of ownership and control. I test several propositions in an effort to explain variation in structure of ownership and control across national-level oil sectors in the region. Uniquely, I analyze government policy choices in hydrocarbon producing country cases with diversified economies not dependent on the hydrocarbon sector for export revenues. The study makes a further original empirical contribution by concentrating specifically on non-OPEC Latin American country cases, in recognition of the growing relevance of all hydrocarbon-producing countries in this region to the international political economy in the twenty-first century.

Finally, empirically and methodologically, mine is a positivist and classical approach to research. In contrast to the mostly positivist and large-n quantitative literature concerned with the political economy of oil development, my comparative case study takes a contextual longitudinal approach. My method of comparison engages process tracing techniques to highlight the role of previously unexplored causal factors and mechanisms that explain variation in government development policy choices for hydrocarbon resources.
Organization of the dissertation:

Chapter 2 operationalizes the study’s dependent variable (hydrocarbon sector development policy) and provides an empirical overview of its evolution in Latin America since the Middle East oil shocks of the 1970s. The overview illustrates a consistent trend whereby national level policy is largely determined by both international level factors and the ISI development model. This cross-national pattern persists up until the critical junctures of the 1982 debt crisis and the coincidental expiration of ISI in Argentina, Brazil, and Mexico. Given apparent divergence in policy choice by the early-1990s, this chapter next reviews the literature and considers the applicability of existing theoretical approaches to the study of productive and public service sector policy reform.

In my literature review in Chapter 2, I engage the theoretical debates and models that inform our understanding of national level hydrocarbon sector development policy in the developing world. This involves analysis of the IPE and CPE literatures on national development strategies and on state capacity. Also, I look to the literature on late-twentieth century “stage two” market reforms in Latin America in the context of the broader globalization convergence debate. These works consider how political and economic decision-making in countries that had been reliant on international sources of financing was altered when spikes in international interest rates in the late-1970s suddenly curtailed external financing as an option for most governments to fund their domestic budgets.

The ensuing 1980s debt crisis forced leaders to consider alternative options for raising revenues needed in order to govern. In some cases, presidents turned to their own
central banks to borrow, in order to meet growing fiscal shortfalls. Such heterodoxy wreaked havoc on the value of currencies, caused domestic prices to soar out of control due to hyperinflation, and consequently forced governments to entertain such policies as privatization. I review these related works in CPE collectively referred to as the literature on the “politics of economic adjustment.” Ultimately, my overall review of the literature finds that none of these approaches alone sufficiently accounts for the observed variation in my empirical analysis.

Chapter 3 elaborates my historical institutionalist analytical framework, and defines and operationalizes concepts of relevance. Inspired by the literature review, I introduce, define, and operationalize the concepts of state capacity (structures and institutions) and reform coalition configuration (interests and preferences), which are the study’s two main independent variables. Next, I establish the proposed theoretical relationship of these concepts to one another. In general, the analytical framework combines insights from structuralist, institutionalist and coalitional theoretical approaches to explain the politics of formulation, approval and implementation, as well as the politics of rejection of hydrocarbon sector development policy reform in Latin America.

The analytical framework consists of the following set of assertions. Following established structuralist theories of late-development, I first argue that national export profile measured over time is a structural variable of overarching causal relevance. I further argue that two key additional structural factors —the 1980s debt crisis and hyperinflation—gave presidents the necessary incentives to place economic reforms, and specifically privatization, on the policy agenda. Policy approval and implementation are a function of: (1) state capacity and specifically the fiscal and technological significance
of the hydrocarbon sector; and (2) the president’s capability to organize societal interests and preferences into a reform coalition.

The small-n comparative analysis, also outlined in Chapter 3, employs presidential terms as the unit of analysis. It aims to establish causal inference through hypotheses testing. The comparative analysis is designed to explore the possibility that causal mechanisms previously unidentified in the extant literature may link the independent variables to outcomes on the dependent variable.

Chapters 4 - 6 trace the process of hydrocarbon sector development policy reform under different presidential terms in the cases of Argentina, Brazil, and Mexico during the 1990s. In each of these three chapters, my analysis of hydrocarbon sector development policy reforms begins with an elaboration of the institutional legacies, as well as the antecedent, permissive and productive conditions that a “critical junctures” framework highlights to account for patterns of institutional continuity and change. Next, chapters 4 - 6 each continue with explanation of the policymaking process, including major areas of substantive policy reforms in the areas of competition, subsidies and relations between the state, regulators, and the national oil company (NOC).

In each of the country case chapters (4 - 6), process tracing analysis is carried out so that national patterns in hydrocarbon sector development policy can be observed and held up for comparison. In all three countries, attention is focused on policies that impacted the NOC. In each of my three primary country cases, reformist policy debate remained centered around the NOC. Notwithstanding the divergent reform process, in each case the NOC continued to comprise the bulk of ownership and control of the sector
itself, in addition to accounting for the majority of upstream production throughout the 1990s.

Chapter 4 analyzes Argentina beginning in 1989, when under the leadership of Carlos Saúl Menem, this country began the process of full-scale deregulation and privatization, which it completed in 1999. The privatization of hydrocarbons in Argentina was just one component of a broader package of neoliberal reforms carried out under the influence of IFIs. Chapter 5 analyzes Brazil, where macroeconomic challenges prompted Fernando Collor de Mello to place liberalization of the hydrocarbon sector on his policy agenda in 1990. However, in 1992, Itamar Franco, Collor’s untimely replacement, temporarily put an end to reforms. In 1996, Fernando Henrique Cardoso, a determined market reformer, initiated a proposal to privatize Petrobras that was met with firm multiparty and nationalist opposition. After lengthy negotiations, in Brazil, the sector was de-regulated and flexibilized in 1997. By contrast, in chapter 6, the case analysis of Mexico shows how this country has maintained the policy of a nationalized hydrocarbon sector since 1938. The period of neoliberal reform under analysis in Mexico spans the presidencies of Miguel de la Madrid, Carlos Salinas de Gortari, and Ernesto Zedillo, with Salinas having perhaps the greatest influence on narrower privatization reforms. The survival of single party authoritarian rule under the PRI until 2000 distinguishes the case of Mexico, as do ties between the PRI and the Pemex union.

Chapters 4 - 6 are organized according to my main hypotheses. In each of the country case chapters, longitudinal analysis is conducted to trace the process of policy reform. Throughout this process tracing analysis, emphasis is placed on the impact of my
proposed explanatory variables. It is not a detailed historical analysis. Concurrently, through process tracing, I test my hypotheses against a set of alternative explanations. Comparative analysis assists me with systematic consideration of a number of alternative explanations highlighted in the literature, including: (1) formal national institutional factors such as federalism, and the strength of the party system itself; (2) nationalism as an idea that shapes societal expectations and government incentives toward hydrocarbon sector development policy; (3) psychological risk-based prospect theory; (4) material factors of supply and demand, and price at both the national and international levels; and (5) the interests and leverage of international actors to impose their preferences on the domestic and foreign economic policymaking process. The research design’s methodical attention to these alternative explanations carefully protects against the theoretical risk of overdetermination.

Hypothesis testing is carried out with use of evidence gathered during my fieldwork. I conducted my principal case study fieldwork in Argentina, Brazil and Mexico during 2010 and 2011, by way of primary interviews, and primary and secondary source document investigation. The case study analysis chapters apply these sources to analyze hydrocarbon sector development policy during the different presidential terms, between 1988 and 2000.

In Chapter 7, I summarize my findings. I reconsider and reassess my theoretical framework pursuant to the completion of my data analysis. I draw conclusions as to which political and institutional mechanisms link structural economic variables and

---

3 Where relevant, emphasis is given to the legacies of foreign direct investment in the sector, the nationalist reactionary socio-political sentiments this model of sectoral development engendered among politicians and voters, and it also elaborates on the history of state-led development where appropriate across cases. Attention to history serves to underscore how this series of events laid the groundwork for the establishment of institutional legacies that conditioned the late-twentieth century policy reform process.
political institutional variables to hydrocarbon sector development policy reform choices in Argentina, Brazil, and Mexico during the 1990s. To test its reliability and validity, a treatment of the analytical framework is further applied to my same three country cases during the post-neoliberal period of the 2000s. Based on this treatment, I consider the implications of my findings on economic policy making in Latin American countries today, and going forward.

Lastly, also in Chapter 7, I assess what my comparative analysis contributes to future research of national level hydrocarbon sector development policy. This involves making the case for applying my original framework based on reform coalition configuration and state capacity to other country cases in Latin America in the early-twenty-first century, and perhaps beyond, to countries outside of the region.
Chapter 2 - Dependent Variable, Empirical Overview, and Literature Review

*Chapter overview:*

This dissertation aims to explicate why in contrast to consistent execution of “stage one” market reforms some Latin American countries privatized their hydrocarbon sectors while others did so partially or not at all during the 1990s. It is inspired by the following question: What explains variation in hydrocarbon sector development policy choices among Latin American countries? To answer this question, the research tests the validity of a number of competing hypotheses through a comparative analysis of hydrocarbon (oil and gas) sector development policies in Latin America during the 1990s.

This chapter is organized into five sections. First, I introduce, define, and operationalize the study’s dependent variable: hydrocarbon sector development policy choices. Second, I provide an empirical overview of market reforms, hydrocarbon sector development policy reforms, and the recent evolution of these reforms in Latin America. Third, I conduct a review of the literature in which I draw on the relevant and interrelated debates in the international and comparative political economy sub-fields, including those on: (1) policy and institutional convergence and the role of partisanship under conditions of globalization; (2) the politics of economic adjustment and market-led reforms; and (3) nationalization and privatization of productive and public service sectors. Fourth, I elaborate an assessment of the literature review, in which I point out that none of the

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4 “Stage one” macroeconomic reforms aimed at fiscal, monetary, and exchange rate policies are distinct from “stage two” liberalization reforms aimed at structural reform and growth, including removal of relative price controls and withdrawal of state intervention in the economy, specifically privatization. See Rodrik (1996).
explanations in these works is, by itself, sufficient to account for the observed variation in national hydrocarbon sector development policy during and since the 1990s in Latin America. Finally, in this chapter’s fifth concluding section, I make the contention that a more complete explanation requires an approach that combines insights from structural, institutional, and agent-based theories into one eclectic framework. This analytical framework is then elaborated in chapter 3. It is tested by way of the comparative and qualitative methods in chapters 4 - 6.

*Dependent variable:*

The dependent variable of this study is hydrocarbon sector development policy choice in Latin American countries. In broad terms, political economists examine asset ownership and market structure as the primary dimensions of development policy for national-level productive sectors. By way of comparison, scholars have explained variation in development policy along these dimensions for different productive sectors and country cases. Contributions to this literature identify trade-offs associated with state actor versus market actor ownership, and competitive versus monopolistic market structure (Robinson and Marshall 2006: 329). Typically, these trade-offs involve the economic productivity and international competitiveness of a specific sector vis-à-vis broader politically intended economic and social benefits that are funded through distribution and redistribution of sectoral revenues (Lewis 2007; McGowan 1996).

In this dissertation, asset ownership and market structure are conceptualized together as SOC, which serves as a proxy for productive sector development policy.
Understanding the significance of SOC as a dependent variable to matters of comparative political economy hinges on questions of sectoral development policy design and variation. As a concept, SOC captures the realms of economics, politics, and society, and it is applicable to a variety of national productive sectors. For this project, to operationalize SOC, I look specifically to indicators of public policy approaches to upstream hydrocarbon sector development.\(^5\)

The national dimension of hydrocarbon sector development policy is concerned with the means and the mode of production of this energy resource. Statecraft involves the protection of the territory from external threats, the guarantee of domestic order, and the facilitation of a productive economy (R.H. Bates 2010). Modern statecraft requires the deployment of substantial hydrocarbon energy resources. As a matter of national security, states have tended to act autonomously in securing energy supplies and technology in the international system, either through domestic development, bilateral agreements, or the international market (Krasner 1978).

Countries that possess hydrocarbon resources typically codify the legal framework for development of those resources as federal law. Federal law lays down surface and subsoil property rights to, or ownership of, the actual undeveloped hydrocarbon resources.\(^6\) Federal law also establishes management control, i.e., the regulatory framework for development, and the royalty and taxation structure imposed upon actors authorized to participate in development (McGowan 1996; Drazen 2000). The regulatory framework authorizes whether state and/or market actors are permitted to

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\(^5\) The upstream segment of the hydrocarbon sector is defined as that segment covering ownership and control of the subsoil rights to extraction, the extraction process itself, the sale and delivery of the crude resource in domestic and international markets, and the collection of associated revenues from that sale.

\(^6\) See Bates (1992: 28) for a definition of and discussion of property rights.
be parties to a contract in development, and as a corollary, whether the sector is monopolistic or competitive. SOC reflects the extent to which state or market actors have ownership and control over of the factors of upstream exploration and development, and claim to related income flows and profits vis-à-vis the nation (Drazen 2000).

The goals pursued by governments and the policy instruments they utilize to conduct oil sector development policy are subject to continuity or change, as are the regulatory framework and organizational and ownership structure (Auty 2006: 17-36). These changes may be the result of either international or domestic factors. Development policy is often transformed by new regulation that alters the present and future participation of specific actors including the state itself, readjusts parameters for actor participation, or redistributes resources among actors (Robinson and Marshall 2006). For example, the state may take on a new role by transitioning from producer to regulator, as is the case with liberalization of the sector. Regulation is more than a technical or operational decision for the state to make as it has philosophical and ideological underpinnings. Because energy is often considered a strategic resource, hydrocarbon sector development policy can tend toward being state interventionist, in which case energy is considered a public good too important to be left to market actors (Helm et al., editors 1989).

In addition to the executive and legislative branches of government, a number of different state and societal actors have interests in the upstream hydrocarbon sector (Auty 2006: 17-36). Federal government bureaucracies play a primary role in the administration of petroleum development policy typically through an independent regulatory agency and through the national oil company (NOC). NOCs “engage in the
research, production, transportation and distribution of energy; and traditionally these companies have been directly owned or controlled by the state” (Prontera 2009).

International oil companies (IOCs) also carry out these same technical aspects of the development process but they are market actors, foreign in most cases. NOCs and IOCs are subject to state regulations. In addition, smaller private domestic firms can also be active in the hydrocarbon sector, typically in support of the labor and activity of NOCs and IOCs. Such smaller domestic firms can also play an important role in carrying out and influencing policymaking through their representative business associations and unions. Finally, provincial and local governments may too be important actors, particularly in democratic and decentralized political regimes.

Ownership and control are the main measureable indicators of hydrocarbon sector development policy, operationalized as SOC. Nationalization and privatization are different conceptual processes captured by the broader concept of SOC. In its different forms, SOC represents the range of ownership and control of national productive sectors by state and market actors in a national economy. SOC is a broad concept that, as a variable, can be measured in a number of ways. For example, SOC can be measured dichotomously based on the “either or” polar opposite outcomes of nationalized and privatized. While usefully parsimonious, such simplicity offered by a dichotomous measurement overlooks necessary nuance and specificity.7 Apparent cross-national variation in hydrocarbon sector development policy suggests the need for greater specification of SOC. Analysis of cases in Latin America and other regions requires application of a richer scale of measurement than the “either or” dichotomous version, in

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7 This section draws upon Joshua Malnight (unpublished manuscript): “Coalitions, Institutions, and Nationalizations: A Comparative Analysis of the Hungarian and Argentine Pension Nationalizations”
order to gain greater conceptual clarity and empirical applicability. Therefore, a richer categorical measurement will be applied in this work. Sigmund (1980: 282-284) proposes a linear typology mixing ownership and control. Building on Sigmund (1980), I propose a similar conception along two related but distinct axes: ownership and control. Such a distinction allows for greater specification of variation in the concept.

For this study, SOC is therefore a categorical variable, and its range of variation is covered by four primary measurable categories: (1) nationalized; (2) liberalized; (3) flexibilized; and (4) privatized. SOC still varies between the two polar outcomes of nationalized and privatized. A nationalized hydrocarbon sector is defined by complete state ownership and control restricted exclusively to government sources of investment. The federal government oversees a state monopoly and its national oil company (NOC) is the sole actor responsible for upstream exploration and production. A privatized hydrocarbon sector is defined by complete market actor ownership and control dependent entirely upon private sources of investment, illustrated by the concession contract. International oil companies (IOCs) and private domestic companies may either compete with one another for market share or, in the absence of regulation, a private monopoly may come into being.8 At moments of sectoral development policy reform implementation, the state may or may not decide the manner in which it will control the sector through regulation, going forward. Regulation is the degree of state control that imposes fewer or more restrictions on those actors with asset ownership in the sector.

Countries with hydrocarbon resources create NOCs to organize activities that the market is deemed not able to coordinate efficiently on its own (World Bank 1995: 37).

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8 Domestic private business ownership is the least common type of ownership structure, particularly in developing countries characterized by deficiencies of domestic capital, which leaves IOCs as the primary private sector actor (Jones Luong and Weinthal 2006).
Governments with NOCs have an interest in setting parameters and rules to encourage NOCs to behave in different ways (Wolf 2009). IOCs are organized to produce financial return for shareholders whereas NOCs respond to the demands of politicians (De Oliveira 2012: 544). In contrast to NOCs, IOCs are not prepared to accept low premiums for high risks or to pay for externalities as expected by politicians (Wolf 2009). NOCs are created by national governments in order to overcome these competing interests (Auty 2006: 17-36). Even so, asymmetry makes it difficult for a balance to be struck between the interests of government and the interests of the NOC. National governments grant NOCs the right to explore for hydrocarbon resources, and the NOC is expected to achieve government objectives (Wolf 2009). Government assumes that the NOC shares its set of preferences and it expects the NOC to acquire the set of managerial and technological capabilities that any SOE needs to efficiently assess the risks associated with its industry (World Bank 1995: 37). Government provides the NOC with a set of economic and regulatory incentives to achieve its objectives. The main regulatory incentive is to grant the NOC a legal monopoly, which eliminates market risks and allows for greater economies of scale. Financial and operational autonomy are the other primary incentives granted to a NOC (Prontera 2009).

Intermediate outcomes of SOC reflect government policies that allow a combined degree of state versus market ownership and control in the hydrocarbon sector. A liberalized policy maintains complete state ownership, but may allow for strictly fee-structured contracts or production sharing agreements, with next to no market control. A flexibilized policy is a mix of state and market control reliant on both government and private sources of capital investment, typically illustrated by the joint venture contract;
one in which the NOC competes with market actors for development rights. The four preceding categories capture the scope of hydrocarbon sector development policy choices, operationalized as SOC. Each of these categories is empirically observable in my comparative case study.

For national productive sectors, ownership and control are two distinct definitional components that are theoretically if not always empirically distinct. By definition, nationalization is a policy process whereby a government transfers ownership of and managerial control over assets in a given economic sector from market actors to the state (Stevens 2008). Conversely, privatization is defined as a policy process whereby a government transfers asset ownership and managerial control in a given economic sector from the state to market actors (Manzetti 1999). In a given case, an observed policy shift versus an attempted policy shift may vary by extent. Another possible variation could be in the policymaking process, itself, demonstrated by the empirical data. Therefore, extent of change in SOC and evidence of change in SOC are two important components of this analysis.

The SOC continuum based on the two axes of ownership and control and based on a categorical range between nationalized and privatized has a high degree of analytical leverage. The analytical leverage of the SOC continuum is especially compelling for sorting out the effects of two interrelated political settings on the policymaking process. The first setting involves the state and domestic political coalitions. It is the state (or the ruling coalition of the state) that places the proposal to nationalize or to privatize a national productive sector on the policy agenda (Bates 1988). The policymaking process
unfolds with varying degrees of political support from a number of different actors in government and society introduced above (Frieden 1991: 22-23 and 34-35).

The second political setting involves “intrastate” relations, defined by the incentives and preferences between different state actors in charge of the administration and execution of national oil sector development policy (Prontera 2009). In some cases, these intrastate incentives and preferences might be aligned. However, there will be at times competing preferences between the executive branch of government and the managers of the NOC whose incentives are a function of the institutional structure regulating their company. The NOC might also have unimpeded budgetary input or gained operational autonomy from its own government, further impacting incompatibilities of interests. Productive and well-funded NOCs are more likely to be able to invest in technological and operational capacity, which tends to make them more profitable and independent from the government. When an NOC is in a position of autonomy it can potentially lead to intrastate power asymmetries that are viewed unfavorably by policymakers. An NOC that functions without either budgetary or operational autonomy is best classified as a mere policy instrument of the federal government (Prontera 2009).

In cases of national hydrocarbon sectors with NOCs, a number of actor preferences guide intrastate relations. *Ceteris paribus*, NOC managers prefer to see profits reinvested in the NOC itself, rather than transferred to the government coffers via taxation. From the perspective of presidents, the political cost of excessive NOC taxation is typically low, while the budgetary tool of price subsidies tends to garner broader citizen support. An important distinction among cases is whether there are any built-in
institutional constraints to prevent potentially predatory executive branch decision-making. In chapters 4 - 6, my “critical junctures” historical institutionalist framework traces the processes of state-society and intrastate relations in the country cases of Argentina, Brazil, and Mexico to explain variation in SOC.

_Evolution of Hydrocarbon Sector Development Policy and SOC in Latin America:_

The late-twentieth century was an important period of societal transformation in Latin America. Outside of the region, the “third wave” of democracy had taken hold in Southern Europe in the 1970s (Huntington 1991), and the ideological tide surrounding national development models had shifted away from state-led development models in favor of neoliberalism. In what became a global sea change, a series of third wave factors brought about the end of authoritarianism as the chief form of political rule in Latin America (Przeworski et al. 2000). At the same time, import substitution industrialization (ISI) came to an end as the dominant national economic development strategy. These political and economic regimes had prevailed hand-in-hand in countries throughout the region since the end of World War II. But the acceleration of global capital mobility in the 1970s and 1980s prompted late-twentieth century national economic change. These structural trends in the global economy, collectively referred to as economic interdependence and globalization,⁹ were later reinforced by the fall of the Soviet Union and the subsequent end of the Cold War in 1991.

⁹ The concept of globalization is applied here in economic terms, defined and operationalized by the level of international trade and the level of capital flows as a share of GDP. This refers specifically to the reduction of barriers between countries to facilitate the flow of goods, capital, services and labor, and convergence of domestic prices toward common international prices.
In Latin America, it was the 1980s debt crisis that proved to be the “critical juncture” that swept away authoritarian regimes and ushered in a new period of monumental democratic and market-led reforms. As scholars have noted, however, these concurrent political and economic reforms presented Latin American nations with a “policymaking paradox” (Murillo 2009). At a time of expanding democratic political rights, economic policymaking became more constrained by the pressures of adjustment to external markets. As they democratized, the majority of Latin American governments pursued a variety of “neoliberal” market-led economic policy reforms already under implementation by governments in industrialized countries.

In response to the 1980s debt crisis, some Latin American governments initially attempted macroeconomic stabilization via heterodox policies, but these measures yielded mixed results. Inflationary monetary policy was soon surrendered, and more extensive neoliberal reforms were ultimately carried out throughout the latter half of the 1980s and into the 1990s (Aoki 2001: 165; Treisman 2004). These reforms were principally aimed at state retrenchment, decentralization, transference of the means of

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10 The 1980s debt crisis was triggered by a measurable jump in international interest rates and Mexico’s subsequent default on its foreign debt obligations in 1982. Contagion spread quickly across Latin America as, one by one, national governments were denied continued access to foreign financial markets and countries experienced uncontrollable capital flight. See Frieden (1991). Confronted with fiscal and trade deficits, and with unmanageable terms of debt repayment, national leaders had few choices other than to push macroeconomic readjustment to the top of their policy agendas. To varying degrees, governments attempted to right their economies independently through expansive monetary policy. But in most cases this approach made matters worse by delivering unconquerable deficits, spiraling inflation, and political volatility. Left without alternatives, most governments complied with external market forces and pursued economic adjustment and neoliberal reforms well into the 1990s.

11 Referred to collectively by comparativists as a debate on the “politics of economic adjustment,” the associated extensive body of literature originated with a set of seminal works that includes the following: Acuña and Smith (1994); Haggard (1995); Haggard and Kaufman (1992, 1995); Haggard and Webb (1994); Nelson, editor (1990); Offe (1991); Przeworski (1991); and Smith and Korzeniewicz (1997, 2000). Since the 1990s, this original stream of works has been built upon extensively by CPE and IPE scholars.

12 Heterodoxy is defined by stabilization policies that promote monetary expansion and government intervention in the economy, in contrast to orthodoxy, which promotes fiscal austerity and government retrenchment.
production to the private sector, economic liberalization to the global economy, and a massive scaling back of social safety nets. With their direct influence on prices, employment, and government distribution, these measures brought about a myriad of associated market risks for individuals. Overall, these drastic “stage-one” and “stage-two” reforms seemed to defy partisan politics, and in some cases resulted in a major reconfiguration of state and societal actor interests and incentives. Remarkable, or so it seemed, economic crisis and external market forces appeared to have transformed even certain democratically elected populist leaders into advocates of neoliberalism (Stokes 2001). Cases of national level structural reform in Latin America during the 1980s and 1990s serve as examples of Murillo’s (2009) policymaking paradox, and too, they have lent weight to what has come to be known among political scientists as the “globalization convergence hypothesis.”

Neoliberal theories of economic reform contend that in response to macroeconomic crisis, at the microeconomic level governments opt to deregulate their productive economic sectors and pursue the policy of privatization of state owned enterprises (SOEs). Liberalization and privatization are structural reform processes inspired by the neoliberal tenet that the market is a more effective provider of collective goods than is the state. In Latin America during the 1980s, with the reintroduction of electoral politics and election cycles, democratic leadership already occupied by economic adjustment was also put on notice of the need to deliver “the goods” associated with distributive politics. Distribution became a daunting aspect of governing in a region

13 Contemporary neoliberal theory has its roots in classical economic liberal and neoclassical economic theory. Despite its origins in economic thought, neoliberalism’s influence upon policymaking yields not only economic, but also political and societal implications and outcomes.
forever confronted by poverty and the highest inequality levels in the world. Moreover, having only recently taken hold, democracy was nowhere near consolidated. On the contrary, in most countries, democracy was lacking institutional features such as horizontal accountability and the types of checks it has had over the policymaking process in more advanced countries. Under this set of circumstances, in the 1990s, Latin American presidents contemplated whether to pursue one of the primary “stage-two” features of neoliberal reform; deregulation of economic sectors and privatization of state owned enterprises (SOEs).

One of the main responsibilities of any national government is to guarantee a prosperous economy capable of sustaining a tax base, so that it may fund the costs of national security, government services and social programs. For some Latin American presidents in power in the 1990s, deregulation and privatization of economic sectors presented an opportunity to satisfy crucial short-term fiscal objectives. Privatization and the sale of SOEs held the promise to generate a windfall of badly needed revenues to fund federal government coffers. In addition, following the neoliberal creed, the dismantling of SOEs was viewed by influential IFIs as a way to rid national productive economic sectors of the corruption, inefficiency, and waste perceived to be perpetuated by state enterprise (Lewis 2007: 23).

Throughout Latin America, numerous cases of deregulation and privatization were approved and implemented during the 1990s. Yet, the results of other cases proposed by governments in the region since the early-1990s suggest this policy choice may be neither as efficient nor as inevitable a process as neoliberal theory would contend. With a twenty-year history of neoliberal reforms under their belts, Latin American
countries have privatized some of their economic, infrastructure and utility sectors but not others, and of those that were privatized, not all are “success stories” (Chong and Lopez de Silanes 2005; Estache and Trujillo 2008: 136-169). Indeed, some cases of privatization that did take place were deemed complete failures and subsequently re-nationalized. In still other cases, privatizations were blocked entirely. In the case of hydrocarbons in Latin America, this observed variation is illustrated below, in Table 1:

Table 1 – Inter-temporal variation in upstream hydrocarbon sector development policy in Latin America

<table>
<thead>
<tr>
<th>Country</th>
<th>Prior to, and during the 1990s:</th>
<th>As of 2000:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Nationalization in 1922, privatization in 1993 - 1999</td>
<td>Privatization: Majority private ownership with FDI preponderance</td>
</tr>
<tr>
<td>Bolivia**</td>
<td>Nationalization in 1936, privatization in 1996</td>
<td>Privatization: Majority private ownership with FDI preponderance</td>
</tr>
<tr>
<td>Brazil</td>
<td>Nationalization in 1953, flexibilization in 1997</td>
<td>Flexibilization: 51% state/49% private ownership with combination of government, private domestic, and FDI</td>
</tr>
<tr>
<td>Colombia*</td>
<td>Nationalization in 1951 with continued FDI participation</td>
<td>Complete state ownership with FDI preponderance</td>
</tr>
<tr>
<td>Ecuador*</td>
<td>Mix of state/private ownership with FDI preponderance</td>
<td>Mix of state/private ownership with FDI preponderance</td>
</tr>
<tr>
<td>Mexico</td>
<td>Nationalization in 1938 with no FDI permitted</td>
<td>Nationalization: Complete state ownership with no FDI permitted</td>
</tr>
<tr>
<td>Peru*</td>
<td>Mix of state/private ownership with FDI preponderance</td>
<td>Mix of state/private ownership with FDI preponderance</td>
</tr>
<tr>
<td>Trinidad-</td>
<td>Mix of state/private ownership with FDI preponderance</td>
<td>Mix of state/private ownership with FDI preponderance</td>
</tr>
<tr>
<td>Tobago**</td>
<td>Nationalization in 1975 with continued FDI participation; greater restrictions on FDI as of 1998 (election of Chavez)</td>
<td>Complete state ownership with restrictions on FDI</td>
</tr>
</tbody>
</table>

Theoretical sources: Jones Luong and Weinthal, 2001, 2004 and 2006
* FDI-driven policy continuity due to structural capital and/or resource endowment deficiency – case is outside the scope of this analysis.
** Enclave/resource dependent economy – case is outside the scope of this analysis.

As a matter of fact, recent Latinobarómetro survey data covering seventeen Latin American countries over the period 1998-2008 shows significant degrees of public dissatisfaction with privatization among lower and middle income levels—the
overwhelming majority—due to a combination of absolute and relative welfare effects (Bonnet 2012). Accordingly, since the turn of the twenty-first century in Latin America, in the realm of public policy for national economic-sectoral development, the pendulum has shifted from market back toward state actor ownership and control as a reflection of a broader leftward shift in economic policy mandates (Baker and Greene 2011).

There is an apparent inconsistency between the prominent IPE theory of globalization convergence and empirical trends in the case of hydrocarbon sector development policy in Latin American countries. This observed variation suggests that in addition to international factors demonstrated through globalization, we should expect domestic factors to influence the process of formulation, approval, and implementation, as well as the possibility of rejection of market reforms to this particular economic sector. The prominence of domestic factors as a condition of reforms is borne out further by the fact that in a majority of Latin American country cases, to varying degrees, the state maintained a presence in hydrocarbon sector development even prior to periodic international waves of nationalization that began to sweep through the region in earnest following the Great Depression. Remarkably, as illustrated above, in some cases, this same institutional presence of the state in hydrocarbon sector development has outlived the wave of privatization that swept throughout the region in the 1980s and 1990s. Just as puzzling is the fact that this same pattern persists cross-nationally in many developed and developing countries beyond Latin America, even as the world’s economy has become far more globalized, more liberalized and more interdependent. In the section that follows, I gain further insight into this puzzle through a review of the relevant literature.
Literature Review: To reform or not to reform? Factors that explain sectoral policy choices:

In this section I review and assess the extant interrelated debates in the international and comparative political economy literatures on: (1) globalization convergence and partisanship; (2) the politics of economic adjustment and market-led reforms; and (3) nationalization and privatization of productive and public service sectors. It is based on this review and subsequent assessment that, in chapter 3, I put forth and justify my historical institutionalist approach to explaining continuity and change in SOC (my dependent variable proxy) over time.

Since the 1980s, the international and comparative sub-fields in political economy have yielded an extensive body of literature on globalization’s national political, economic, and social effects. These two sub-fields are differentiated by two main contrasting views on the effects of international finance and capital mobility on national policymaking. Even after decades, the debate remains unresolved, due in large part to a fundamental disagreement among political economists about how the international financial system functions and how it interacts with domestic politics in both industrialized and developing countries. In essence, between the two approaches the literature offers two competing schools of thought.

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14 Jackson and Sorensen (2007) define globalization as “the spread and intensification of economic, social and cultural relations across international borders.”
International/globalist approaches:

One school of thought argues that leaders elected on a leftist or nationalist party platform end up facing external constraints that cause them to rule out heterodox policymaking, and to opt instead for orthodoxy. In general, this view contends that, since the breakdown of the Bretton Woods financial system in the early-1970s, globalization and the acceleration of capital mobility have made domestic politics less decisive in national economic policymaking. This is because of the globalized environment of competition borne out among industrialized and developing countries and capitalists in the international arena. Given this scenario, government leadership is forced to narrow its range of domestic policy choices to those that are market friendly. Otherwise, the likelihood for capital flight and disinvestment increases, with negative domestic implications likely to translate into unfavorable electoral outcomes for incumbents (Brune and Garrett 2005; Strange 1996). This globalist view perceives capital mobility to be the primary determinant of national governments’ economic policies (Frieden 1991; Garrett and Lange 1991; Santiso 2003; Strange 1996).

The globalist view is based on observed empirical trends in trade competitiveness and capital mobility, which have both been on the increase since the collapse of Bretton Woods in 1971. Globalists perceive the changes in these structural factors, along with the increasing leverage of IFIs, as major constraints on the choices of national governments and other domestic actors as, more and more, countries must compete globally to lure holders of mobile capital (Andrews 1994; Drezner 2001; Gill and Law 1989; Kaufman and Segura Ubiergo 2001; Przeworski and Wallerstein 1988). The
globalist view argues that if a given national government does not adopt policies that reflect the preferences of capital then invested capitalists are likely to exercise their exit option, while other prospects will just invest elsewhere (Kaufman and Segura Ubiergo 2001). Given this set of conditions, globalists argue that despite the preferences of the electorate, national governments are essentially prostrate up against the influence of mobile capital. The need to attract and retain highly mobile capital forces government leadership to prioritize the policy preferences of the market above the electoral mandates of constituents.

As succinctly put by Hart, the globalist hypothesis states that “if policy decisions in the neoliberal era are merely responses to international market pressures, the ideology of a country’s ruling party should be a poor predictor of future policy outcomes” (Hart 2010). Observed broad trends of this shift toward national policies that favor retrenchment of the public sector, suggests convergence toward a neoliberal finale. Given these broad cross-national trends, pessimistic predictions by globalists about the future of domestic partisanship remain unchanged in the 2010s.

A descendant of the globalist school of thought and the international political economy (IPE) sub-field, the globalization convergence hypothesis has become one of the most influential arguments in contemporary political science. This IPE research agenda on the national-level consequences of globalization has shed the most light on issues of macroeconomic and social policymaking. Pioneering theoretical studies predicted a demise of the welfare state under increasing international pressures posed by globalization (Brown 1988; Morris 1988). Such works assert that under the exogenous forces of market integration the capacity of states to govern domestically is weakened
and compounded by policy convergence or a “race to the bottom” in pursuit of global competitiveness.

Subsequent large-n empirical studies that test the convergence hypothesis on the social spending patterns of advanced industrialized countries have yielded mixed results. Some studies point to highly institutionalized democratic political systems as the primary mitigating condition of globalization (Boix 1998; Garrett 1998; Mosley 2003; Pierson 1994, 1996). These works draw conclusions based on observed cross-national variation in the strength of labor unions and this variable’s correlation with welfare spending. Other contributions draw their large-n samples from the population of industrialized and developing countries. These studies show that greater degrees of openness in national economies leads repeatedly to increases in domestic social spending, suggesting welfare state resiliency. Such econometric works conclude that increased spending is an efficient compensatory response to the detrimental impacts of deindustrialization (Iversen and Cusack 2000; Rodrik 1998). The observable implications of these studies suggest that economic policy convergence in response to globalization is not necessarily inevitable in highly institutionalized democratic countries. In summary, for industrialized countries the globalization convergence debate has arrived at an impasse on issues of causal mechanisms and methodological concerns (Wibbels 2006).

In contrast, empirical research on country cases in the developing world suggests that the mitigating factors shown to limit welfare state convergence in industrialized democracies are not necessarily applicable. In fact, decades after the rise of neoliberalism and of the globalization convergence hypothesis, the proverbial jury is still out concerning globalization’s impact on the welfare state in developing countries, with
the evidence still appearing more mixed. Some scholars have provided evidence based on large-n cross-national analysis that increased trade integration negatively affects social spending in developing countries (Kaufman and Segura Ubiergo 2001). Others have found that, as in industrialized cases, in developing countries domestic politics and the power of labor in particular similarly conditions the effects of globalization (Rudra 2002, 2008; Rudra and Haggard 2001). However, Rudra’s (2002) study concludes that the tendency for developing country labor movements to face collective action problems offsets this interest group’s ability to gain politically from globalization. Overall, the broad consensus arrived at by this body of empirical work is one of systematic divergence between industrialized and developing countries vis-à-vis globalization and the welfare state. In general, trade dependence tends to cause increased social spending in the former, and decreased social spending in the latter.

With the late-twentieth century acceleration of globalization, it seems evident that most industrialized and developing countries have, depending on the case, displayed either some or considerable convergence in macroeconomic, and trade policymaking since the 1980s. Yet, empirical evidence suggests the same cannot be said for welfare policymaking or, for that matter, for national productive and public service sectoral policymaking, such as in the case of hydrocarbons, over the same time period. The IPE literature on the globalization convergence hypothesis has not put forth complete answers to explain apparent cross-country variation in national sectoral development and regulatory policy, particularly in the developing world. Furthermore, in cross-regional comparative terms, given the relative weakness of formal democratic political institutions in Latin American countries, a puzzle remains as to what other factors might explain the
observed divergence in hydrocarbon sector development policy in Latin America during the 1990s.\textsuperscript{15}

Comparative politics approaches:

In contrast to globalist and IPE approaches, a body of literature in CPE has put forth empirical evidence showing that globalization’s forces are not necessarily absolute or decisive across space and time. This alternative and more skeptical school of thought held mainly by comparativists working in CPE argues that not all governments surrender to the pressures of globalization and Washington Consensus policies. This skeptical view points out that national policymaking remains a function of domestic political settings where governments prioritize the interests of their electoral constituencies. This collection of works, targeted mainly on industrialized democracies, launches a direct assault on the globalist perspective, with these works drawing the conclusion that globalization’s forces are not decisive over partisan politics (Alesina and Rosenthal 1995; Garrett 1998; Swank 2002). This literature argues that partisan preferences for domestic economic policies are driven by deep-seated ideas about what the role of the state should be in the national economy, and how much the market should control development.

Research by skeptics finds that politicians are able to prioritize the interests of their domestic constituents because the international financial system gives government greater policy autonomy than the globalist view suggests (Boix 1998; Garrett 1998;

\textsuperscript{15} As early as sixteenth century Europe and more recently since implementation of the Bretton Woods system (1946), the international economy has been influenced by capitalist mechanisms of finance, investment and trade. These mechanisms and their national-level impacts have made issues of development policy for national-level productive sectors a constant focus for scholars of political economy.
Maxfield 1998; Wibbels and Arce 2003). In his analysis of industrialized democracies, Garrett (1998) finds no support for the view that capital mobility constrains policy autonomy. In their analysis of national taxation regimes across Latin American cases, Wibbels and Arce (2003) find no connection to capital mobility. Taken together, this skeptic research calls into question the empirical applicability of the globalization convergence hypothesis, as it suggests that national government leadership may have policy levers at its disposal to strike a balance between domestic interests and international constraints.

It has long been assumed that leftist and nationalist parties in both the industrialized and developing world prefer a large, interventionist state capable of extracting high levels of tax revenue that is distributed through social welfare programs. In contrast, it is assumed that parties on the right favor state retrenchment, lower levels of taxation in the interest of market and private sector stimulation and economic growth. Skeptic scholars concerned with policymaking in advanced industrial democracies have concluded that leftist governments, despite the limitations they face, are consistently able to maintain their ideological policy platform (Garrett 1998). These analyses indicate that left-leaning governments retain an influence on social-welfare spending (Allan and Scruggs 2004; Garrett 1998), on progressive taxation and macroeconomic policy autonomy (Oatley 1999), and even on privatization (Boix 1997).

This set of skeptic scholars does not subscribe to the argument that we are witnessing the inevitable death of partisanship. Quite to the contrary, the works in this growing body of literature conclude that globalization’s constraint on policy makers in the democratic industrialized world varies substantially across policy areas (Hart 2010: 306). However,
it is unclear how applicable these findings are outside of the advanced industrialized democracies. Today, most developing country cases faced with globalization are also experiencing weakening party systems and labor sectors, along with heightened dependence on foreign investment, and a persistent dependence on primary commodity exports to generate foreign exchange. Combined, these empirical trends expose developing countries to the vagaries of mobile capitalists, international trade cycles, and finally, increased leverage on the part of IFIs. Such vagaries would seem to circumscribe the policy choices of national leaders.

The politics of economic adjustment / market reform approaches:

As comparativists have published more empirical work that confirms sustained cross-case variation in domestic policymaking autonomy, globalist works in IPE predicting convergence are more often being called into question. This same weakness in external validity on the part of globalist approaches has also been identified in a related stream of literature on political regime transitions and on post-crisis economic reforms. Referred to collectively as the literature on the “politics of economic adjustment,” this revolutionary set of works is concerned with globalization’s effects on national development strategies during times of debt crisis (Haggard 1990; Haggard 1995; Haggard and Kaufman 1992; Haggard and Maxfield 1996; Stallings 1992; Weyland 2002). These works identify IFIs and foreign creditors as the external actors with the greatest influence on domestic policymaking in bankrupt countries. IFIs extended loans with conditionality terms that required the borrowing national governments to carry out market reforms. Among these
were IMF standby agreements and World Bank loans (Henisz et al. 2005). Commercial banks, too, had leverage over national governments in financial markets, due to the direct macroeconomic impact tied to the servicing of foreign debt (Stallings 1992). The IMF sponsored its first structural adjustment programs (SAP) in response to the 1980s debt crisis. SAPs spell out a series of contingent reforms for borrowing countries to implement, including liberalization, deregulation and privatization. “Structural conditionality went on to become a common feature of both IMF and World Bank programs that pressured borrowing countries to privatize inefficient SOEs” (Breen and Doyle 2012). Again, produced mainly by comparativists, the research agenda on the “politics of economic adjustment” considers the effects of a multitude of external and concomitant late-twentieth century external pressures placed on industrialized and developing countries. Among these pressures were increased international trade competition, accelerated capital mobility, together with debt crisis (of the 1980s) and the subsequent advance of IFI-imposed market-led reforms, which are believed to have constrained partisan politics in some country cases (Doyle 2012). However, empirical tests of these theories revealed that, while systemic level explanatory factors may uncover broad patterns that condition macro-level economic reforms, they alone cannot account for variation in “stage-two” reforms among cases during the 1990s.

Drawing upon the developing world for observable empirical evidence, comparativists working in the politics of economic adjustment vein took note of the extraordinary and distinct economic transformation of developing country cases such as Chile, South Korea, and the East Asian Tigers. A direct challenge to the globalization convergence hypothesis, these cases offered empirical proof that domestic—if not
democratic—politics is still relevant in a globalizing world. Still other cases in Latin America suggested that external pressures can constrain policymaking, but these common external pressures are incapable of explaining cross-national differences. Overall, because systemic level explanations were by themselves deemed insufficient to explain government policy choices, domestic level explanations began to gain further renewed prominence in political economy studies.

*Second-generation comparative works on market reforms:*

By the 1990s, scholars of comparative politics began to put forth theories and factors that called into question the universal applicability of the globalization convergence hypothesis, as well as macro-level theories of economic reform and structural adjustment. This shift in thinking yielded a “second generation” collection of works that built on the politics of economic adjustment agenda. This stream highlighted the transitions from authoritarianism to democracy and from ISI to market-led economies, and it became the center of a debate dominated by the formal institutional, the “insulated leader” (statist), and “public choice” (societal) approaches.

“Second generation” approaches were important to understanding the political dilemmas posed by the exhaustion of and crisis of ISI. Indeed, in many episodes of radical neoliberal adjustment such as Chile in 1975, Bolivia in 1985, and Argentina in 1990, governments recentralized authority and gained power vis-à-vis established societal interests after hyperinflationary crises. Notably, the underlying political-economic logic of market-led reforms for both the insulated leader and public choice approaches is based
upon the assumption that market-led reforms are conceived as public goods that generate collective action problems. The executive’s degree of political strength is the main causal factor that both of these approaches see being the predictor of whether or not collective action problems are overcome in pursuit of reforms. Public choice theorists predict a prevailing of societal interests (Bates and Krueger 1993; Krueger 1993; Olson 1982). On the other hand, statist scholars predict suspension of democratic institutions at the direction of “insulated,” i.e. authoritarian-like, leaders who respond to societal demands for relief from economic crisis. From the statists’ perspective, a monopolization of power by the executive is what it takes to overcome collective action problems that stand in the way of reform (Acuña and Smith 1994; Haggard and Kaufman 1992; Haggard and Kaufman 1995:118; Nelson 1990). A collection of related works considers structural factors that condition the collective action problems inherent in economic liberalization (Bates 1992; Geddes 1994; Przeworski 1991). These approaches assume the primacy of structural capitalist interests as the determinants of market-led reforms.

Insightful as guiding conceptual frameworks, the formal institutional, insulated leader and public choice approaches, like their predecessors, generally focus at a higher level of abstraction on the commonalities of neoliberal projects based on a standard Washington Consensus framework. These approaches were helpful to explain why and how broad market-oriented reforms are initiated. But a major weakness in them is their assumption that countries follow a standard path of adjustment involving an initial set of “stage-one” stabilizing macro-level reforms followed by a predictable uniform round of deeper “stage-two” policy reforms such as labor reforms, pension reforms, trade reforms, and the de-regulation and privatization of strategic economic sectors.
While useful for explaining cases of radical post-crisis macro-level adjustment, much like some of their IPE counterparts, over time these more general and deductive “second generation” approaches have been proven to be not especially useful for more detailed comparative analysis. The earliest domestic level explanations of market-led reforms offered by comparativists assumed a set of given preferences for state and societal actors conditioned by the role of formal institutions in aggregating those preferences into policy choices. According to early societal approaches, policy choices will reflect the preferences of the strongest and most influential of these competing domestic groups. However, these approaches came to be viewed as incomplete because of their tendency to assume interest group pressures are automatically transformed into policy and because they take the state for a passive actor with no interests of its own. Upon closer examination, in particular, these approaches proved to be of limited explanatory value in the democratizing setting of Latin America, and in other regions of the developing world.

The academic debate’s reorientation away from the globalist school of thought and first and second generation works on the “politics of economic adjustment” gave rise to a subsequent body of literature that theorized partisanship as the primary mitigating factor between the forces of globalization and national policymaking. Research in this stream seeks to inductively explain cross-case variation in economic policy in industrialized countries, and post-crisis “stage-two” reforms in developing countries. This more recent “second wave” of research on market-led reforms and partisanship moves beyond the question of why the developing world adopted neoliberal reforms and attempts to explain cross-country variation in degrees of liberalization (Biglaiser and
Brown 2003, 2005; Nielson 2003). This body of literature has focused primarily on the independent effect of partisanship, but as research on the advanced democracies has demonstrated, partisanship can also condition the effect of international and domestic pressures on policy.

“Second wave” comparative works on the impact of globalization in developing countries:

Since the turn of the twenty-first century, despite the noted reorientation by comparativists to a “second wave” research agenda in CPE, there still remain relatively few empirical evaluations of the globalization convergence hypothesis applied empirically to developing country cases (Rudra and Haggard 2001; Rudra 2008). A small collection of studies by globalist convergence scholars built on theories of dependency posits that the competition for global capital drives economic policy toward a narrowly defined neoliberal ideal (Appel 2011; Dupuy 1998). There is also a nascent literature focusing on the impact of international pressures on partisanship in the developing world. Among these other “second wave” published works, there is an awareness of international constraints, and a consensus that globalization’s effects on policymakers in the developing world varies substantially across substantive policy areas (Hart 2010; Johnson and Crisp 2003; Kaufman and Segura Ubiergo 2001; Kingstone and Young 2009; Mosley 2003; Mosley and Uno 2007; Murillo and Shrank 2005; Murillo and Martínez-Gallardo 2007).

Currently, the consensus of the “second wave” of scholarship on globalization, market-led reforms and partisanship is that both the substantive nature and means of
partisanship’s impact varies dramatically across policies, indicating therefore the continued need for policy-specific investigations of the convergence hypothesis (Hart 2010: 306). Collectively, the empirical findings of this set of works mirrors those of the more current works on industrialized country cases, and illustrates “the multi-faceted nature of globalization and also demonstrates the need for additional policy-specific, rather than comprehensive, examinations of the globalization thesis” (Hart 2010). This is because neoliberalism encompasses a broad set of policies, including those with potentially substantial latitude for continued partisan influence. Investors and creditors may prioritize inflation and interest rates over domestic taxation and privatization. As a result, left-leaning governments may have more autonomy than globalists would predict to adjust policy so as to satisfy their constituents.

“Second wave” works on Latin American country cases faced with globalization:

Latin America, after the debt crisis of the 1980s, witnessed some of the most rapid and widespread market reforms. Concurrently, the region experienced one of the most extensive episodes of IMF intervention in recent history (Pop-Eleches 2009: 8).

Furthermore, since the 1970s, in Latin American cases, the influence of a continuous and simultaneous unfolding of democracy has brought a greater number of voices into the political arena. This pluralization of interests casts doubt on the analytical power of earlier approaches in the “politics of economic adjustment” literature based on institutional design, the idea of the bureaucratically insulated leader and unilateral decision-making, or that of the societal rent seeker capable of blocking the emergence of new reform coalitions. Moreover, in light of the region’s simultaneous transition to
democracy and to market-led economies, the generalizability of the extant globalization
literature’s findings to Latin American cases remains inconclusive (Hart 2010: 305).

When during the 1980s and 1990s Latin American leaders pursued economic
reforms like privatization, it raised domestic distributional implications, potentially
harming some domestic groups and benefitting others. These societal interests, typically
business and labor, became incentivized to organize and push for their preferred policies.
Yet in Latin American cases, the public choice explanation must be qualified because of
the prevalence of presidentialism, which allows for strong executive influence on
policymaking. In the Latin American context, policymakers are not necessarily highly
constrained by the economic interests of societal actors. Neither are they necessarily
constrained by formal institutions of democracy.

In fact, research on Latin American market-led reforms revealed empirical
evidence that both right-wing and left-wing governments initiated dramatic shifts to the
neoliberal economic model. This evidence led a number of researchers to conclude that
elected officials carried out “reform by surprise” by advocating a particular policy agenda
during their campaigns and implementing quite another once in office (Domínguez 1998;
O'Donnell 1994; Stokes 2001). The fact that parties traditionally known for state
expansion adopted draconian, orthodox reforms suggests that partisan cues are not
necessarily reliable indicators of economic policy outcomes. Therefore, the relevance of
partisanship in Latin America, in the face of considerable IMF influence, offers a difficult
test for critics of the convergence hypothesis.

Likewise, the speed and severity of Latin America’s neoliberal transition
disarticulated the traditional constituencies of leftist parties. Although economic
liberalization strengthened linkages between the left and labor in industrialized countries (Garrett 1998), the retrenchment of the state and the dissolution of corporatist structures of interest representation in Latin America weakened labor’s influence over economic policy (Kurtz 2004; Roberts 2002, 2008). With globalization’s effects on economic regulations and increased capital mobility, particularly capital’s tendency to exit unfriendly regulatory environments, it is not unimaginable that globalization could displace partisanship as the primary determinant of economic policy in Latin America.

Indeed, the ability of contemporary partisanship to shape policy outcomes in the developing world has been called into question, particularly in Latin America, where, as mentioned above, a number of market reforms were implemented by traditional populist, labor-based\(^\text{16}\), political parties (Stokes 2001) and where scholars have pointed out a deficiency of programmatic political parties in the region (Kitschelt et al. 2010). Murillo (2002) found that although governments across the region were unable to resist the pressures to privatize, the terms of asset sale and design of regulatory institutions were shaped by divergent partisan preferences. In addition, Murillo and Martinez-Gallardo (2007) and Murillo (2009) demonstrated that although the ideology of the incumbent had

\(^{16}\) Historically, the most prominent leftist parties in Latin America have been nationalist as opposed to communist or socialist. This is particularly true in the post-debt crisis context where even the more identifiable socialist parties in Brazil and in Chile have abandoned any endorsement of socialist principles. Thus, following works by Kenneth Roberts (2002, 2008, and 2014) and by Kaufman and Segura-Ubiergo (2001), Latin America’s left-wing parties must be understood as being primarily nationalist, with stronger ties to organized labor and the middle class, rather than to a communist platform. Typically, these nationalist parties have had a set of common characteristics: (1) they been committed to development of the internal economy through promotion of domestic industry; (2) they have been wary about integration with the international economy and suspicious of foreign capital; and (3) many of these parties had at least some political ties to local capitalist groups in addition to their strong links to labor and the middle class while overtly in opposition to large landowners, finance capitalists, and foreign investors. As a consequence of these characteristics, these parties have historically been more aggressive in using government intervention in the economy, both through state enterprises and through channeling resources to labor, the middle class, and domestic business.
practically no effect on the reform of Latin American public utilities, the relative ideology of the main opposition did. Meanwhile, in contrast, Kingstone and Young (2009) found that, in Latin America, partisanship has no relevance for a wide range of policies, including on privatization.

With the initial causes of economic adjustment, market liberalization, and stage-one reforms in 1980-90s Latin America well documented, a newer generation of literature emerged in the late-1990s. As explained above, by the late-1990s, among comparativists, attention to the debate on the “politics of economic adjustment” shifted from international economic constraints, formal institutional, insulated leader, and public choice approaches to a diversity of approaches focused on state-society relations. Several of these studies of national policy reforms pinpoint negotiations such as the granting of state assets to protected unions and business groups as concessions (Corrales 1998; Etchemendy 2001; Murillo 2001; Teichman 2001).

“Second wave” coalitional comparative approaches:

This latest collection of “second wave” empirical work by comparativists focuses more deeply on state-society relations in specific policy areas. This growing body of work shows that the approval and implementation of market-led reforms involves wider and more complex tasks of political coalition building—beyond traditional partisan politicking in a democratic setting—than the aforementioned approaches are capable of explaining. Several scholars point out that a pro-reform shift in net societal preferences across party lines is necessary to implement and sustain market reforms (Corrales 2002;
Etchemendy 2001; Gibson 1997; Kingstone 1999; Leaman 1999; Murillo 2001; Schneider 2004a; Treisman 2003). This hypothesis has inspired the coalitional approach to explaining market-led reforms.\textsuperscript{17} This approach examines the capacity of executives to guide economic reforms by organizing societal interests into political and reform coalitions (Kurtz 2004; Kurtz and Brooks 2008; Schneider 2009).

The coalitional approach’s point of departure is the theory that reforms must eventually appeal to a new coalition of domestic beneficiaries. It poses a direct challenge to earlier approaches that conceptualize the coalitions driving market-led reforms being influenced exclusively by financial interests and therefore prone to cross-national similarity (Frieden 1991; Rogowski 1990). The domestic coalitional approach argues that societal actors with their vested interests do not necessarily block economic reforms, as is argued by the public choice school, for two primary reasons: first, because they find status quo economic and distributive conditions to be untenable (Weyland 2002); and second, reform presents them with new political and rent-seeking opportunities. Existing works in this vein have found that a rent seeker under the former ISI model may actually be a self-interested advocate of market reform (Kingstone 1999; Maxfield and Schneider 1997; Murillo 2002; Schamis 2002; Schneider 2009a; Teichman 2001). As Etchemendy (2011) found, the cooptation and coalition-building strategies of neoliberal governments can actually vary considerably vis-à-vis societal actors.

Rather than simply sidelining and dismantling organized ISI actors, governments often compensate entrenched economic interests of the old order through a variety of policies that grant specific players subsidies or some sort of market reserves in the new

\textsuperscript{17} See Waterbury (1993: 192) for a discussion of coalitional analysis and the need to research coalitions in order to identify and analyze interests during market reforms.
liberalized economy (Murillo 2009). Etchemendy (2011) also points out that there is a multidimensional logic to market-led reforms. This logic tells us that, particularly in labor and business tradable sectors, important actors can lose and win at the same time.

More recent approaches in this vein combine both domestic and external variables (Kurtz and Brooks 2008). The government might undermine the rents and market reserves of some unions and firms through radical import liberalization. Yet, reform-minded officials might grant those same actors special concessions or protections in other policy areas such as the health and labor markets or in privatization scenarios, strengthening their position in the newly liberalized order (Kurtz and Brooks 2008).

The most recent set of “second wave” work by comparativists to apply a coalitional approach examines the complexities of reforms in democratic Latin American cases in the 1990s. The focus of these works has been on analyzing alternative patterns of neoliberal reform, and on explaining the determinants of stage-two microeconomic policy reform of specific productive (economic), public service (utility), or social (pension) sectors and its cross-sectional variation throughout the region beginning in the 1990s. Empirical analysis of microeconomic and other sectoral reforms in Latin America during the 1990s serves as a deeper test for the hypothesis that globalization has led to domestic policy convergence toward a global single peak equilibrium. Some of these studies have emphasized the territorial and economic-sectoral and distributional dimensions that underpinned negotiations between reformers and stakeholders. See, for example, Madrid (2003) and Brooks (2009) on pensions, Murillo (2009) on public utilities, and Shadlen (2009) on intellectual property. This collection of work concentrates on the intricacy of bargains between governments and targeted
constituencies in the political construction of market reform coalitions (Schneider 2004a). This group of CPE scholars has uncovered a range of previously unexamined strategies that government leaders deploy to gain societal stakeholder support for “stage-two” market-led reforms. In various Latin American country settings, leadership achieved “stage-two” reforms by targeting stakeholders with spending or market-controlling mechanisms (Burgess 2003; Kurtz 2004; Murillo 2009; Richardson 2009). Stakeholders may be provincial governors, rural interests, protected business and labor groups, or political parties, or others outlined above in the section of this chapter that defines the dependent variable.

Coalitional approaches challenge statist, societal, and partisan approaches. In contrast to statist approaches based on formal institutions and insulated leaders, societal approaches based on rent-seeking, and strict partisan approaches based on ideology, all of which see preferences as fixed, coalitional approaches argue that preferences can be negotiated in response to the terms of a given policy agenda, in some cases through side payments. For the coalitional approach, the ability to negotiate preferences is an important reform mechanism that gives policymakers the capability to organize societal interests exclusive of partisanship. Moreover, the coalitional approach challenges the systemic level convergence hypothesis by showing that national economic policies may continue to reflect domestic interests despite increasing capital mobility (Maxfield and Schneider 1997).

The majority of domestic explanations of market-led reform are by themselves insufficient to explain variation in government policy choices in my study. But the “second wave” coalitional approach indicates that it is theoretically relevant and will play
a central role in the construction of my analytical framework. Still, it is necessary to review the CPE literature on nationalization and privatization, in order to formalize hypotheses because this more specific type of “stage-two” reform identifies more closely with my research.

*Nationalization and privatization literature:*

From a political economy perspective, the processes of nationalization and privatization concern the relative benefits of government versus market ownership and control for the provision of goods. Nationalizations have become quite rare since the 1960s and 1970s. Previously, nationalization of domestic industries had been seen as a necessary corrective to market failures, and to be in the national interest following structural theories of dependency. The literature on nationalization contains two primary schools of thought. One school frames nationalization as expropriation in the economic sense, focused on the immediate or long-term benefits of asset seizure in a given productive sector (Vernon 1971). In a political setting, this school poses nationalization as a matter of institutional weakness on the part of government, demonstrated by a willingness to expropriate. The literature on political institutions views institutional strength as a discouragement to expropriation. Institutions that guarantee the rule of law and property rights and that constrain government behavior should limit cases of nationalization (Acemoglu et al 2005).

To explain the tapering off in frequency of nationalizations since the 1960s, Sigmund (1980) submits that Latin American governments began to see the limits of the
policy in terms of productivity and technology. Such setbacks prompted, in some cases, an ideological shift among the ruling class away from dependency theories. “Latin American policymakers have recognized that neither the automatic harmony of interests by advocates of free enterprise nor the inevitable conflict of interests espoused by the Marxists is an accurate description of the relation of the less developed country to foreign capital” (Sigmund 1980: 279). In other cases, a shift to greater bargaining power by states vis-à-vis IOCs made nationalization a less pressing option. In other words, once they had acquired necessary technology and administrative expertise, Latin American governments were more willing to cooperate with IOCs. In another turnabout, beginning in the 1980s, privatization became far more common for reasons explained below.

Finally, as Hajzler (2011) has pointed out, renationalizations are not uncommon in the mining and petroleum sectors, with Bolivia in the 2000s serving as a stark example.

In historical terms, the most recent and significant wave of deregulation and privatization began in industrialized countries in the late-twentieth century as a response to the exhaustion of state-driven economic policies put in place after World War II. Economic stagnation in industrialized countries was transformed by change agents into a broad neoliberal project aimed at redefining the role of the state in society (Pierre 2012). In the early-1980s, state enterprise and regulation came under a targeted attack by the neoliberal movement. Neoliberalism was championed by Margaret Thatcher and Ronald Reagan, whose support for this development ideology influenced a generation of political leaders and technocrats (Peters et al. 1998). Since then, the 1990s and 2000s have witnessed cycles of deregulation, privatization, and reregulation of the economic, productive, social and utility sectors of countries worldwide.
In Latin America, privatization became a frequent policy choice following the 1980s debt crisis. The ISI model’s failure to sustain economic growth and stability from the 1980s onward prompted nearly all Latin American countries to adopt market-oriented structural reforms that significantly reduced the role of the state in the economy. Once ISI collapsed, Latin American governments were repeatedly forced to turn to the IMF and the World Bank to finance their current account deficits (Haggard and Maxfield 1996: 214). Privatization was a central component of SAPs containing conditional IFI-backed loans. As a result, since the 1980s, Latin America has witnessed some of the largest and most aggressive privatization programs.

Latin America’s record with privatization shows significant intra-regional variation in country, sector, and temporal terms (Breen and Doyle 2012). In fact, Latin America was one of the first developing country regions to generate significant revenue from privatization, demonstrating a sharp initial peak in the early 1990s, driven by rapid and aggressive privatization programs in Argentina and Mexico. Throughout the 1990s, Latin American countries liberalized and privatized strategic economic sectors such as electricity, telecommunications, water, pensions, and hydrocarbons. Some of these sectors had been held up as “national champions” under ISI, and considered integral to ISI’s greater mission to achieve the “commanding heights” of state-directed development. Privatization revenues peaked again in the region in the late-1990s, driven by Brazil’s later privatization program, and to a lesser extent that of Colombia. Privatization revenues tapered off after 1999, and since then, they have not rebounded significantly in the region.
Decades after their implementation, privatization schemes have yielded mixed results in Latin American countries. What explains variation in the adoption and implementation, or rejection of privatization among Latin American countries? Some scholars argue that economic crisis is a necessary and sufficient condition to place privatization on the policy agenda. However, empirical variation among Latin American cases strongly indicates that economic crisis alone was neither the sole nor the adequate determinant of privatization in the 1980s and 1990s. What other factors cause privatization? Scholars who have contributed to the literature on privatization put forth a number of competing explanations. Empirically, these contributions include those that are cross-national, those that are cross-regional, and those focused specifically on the Latin American region. Over time, this body of CPE literature has converged around a competing set of—four international and three domestic—hypotheses to explain why and how the policy of privatization is adopted and implemented.

A first hypothesis is that increasing market competitiveness in the late-twentieth century international political economy explains privatization. In countries where stage-one reforms such as capital account and trade liberalization have already been implemented, global competition may drive governments to privatize sectors that are under the ownership and control of the government. Conditions of capital mobility place additional pressure on national governments to attract both portfolio and investment capital, and the liberalization and even privatization of an entire economic sector is viewed as an effective way to achieve such a goal. Empirical evidence shows that the main driver of productive sector privatization in industrialized countries was the liberalization of capital markets (Schneider et al. 2005: 718-19).
A second international level hypothesis, neoliberal ideology, opposes state-led sectoral development. For neoliberals, state-controlled productive sectors are inefficient because they stifle market mechanisms and lack a profit motive. Moreover, state enterprise is faulted by neoliberals for its protective tariffs, inefficient production, non-competitive wages, and price controls. Drawing upon the cross-national record of twentieth century state enterprise, neoliberal economists predict that SOEs are destined to incur perpetual budgetary shortfalls, and to be forced to borrow from the government itself or from foreign sources. This puts governments further in debt and at risk of interest rate increases, recession, and even macroeconomic crisis (Garrett 1998: 792). In contrast, neoliberalism itself focuses on the potential efficiency gains that privatization is capable of achieving through market-led provision of collective goods (Dewenter and Malatesta 1997, 2001). Neoliberal ideology influenced the US-trained Latin American economists who studied under its proponents and then returned to their native countries to become technocrats. These technocrats and their tendency to profess the “miracle of the market” (Bates 1989) played a major role in the decision-making calculi of Latin American presidents as they contemplated privatization during the 1980s and 1990s (Kogut and MacPherson 2008; Williamson 1994: 11-28).

Diffusion is a third international level hypothesis that has been put forth to explain privatization in Latin America during the 1990s. Diffusion effects take hold when policy results in one country are perceived favorably and then copied through a cognitive mechanism by another country’s leadership (Meseguer 2004; Weyland 2005, 2005a). Governments may choose privatization as a consequence of bounded learning, or cognitive heuristics, whereby governments place exaggerated stock in a measure’s
superiority and simply adopt it wholesale, regardless of its relevance for their own context (Breen and Doyle 2012: 312; Meseguer 2004; Weyland 2005, 2005a).

An externally-induced economic shock, such as the debt crisis of the 1980s, is a fourth international level hypothesis put forth to explain privatization. The proceeds of privatization offer indebted governments the means to pay creditors, to reduce deficits, to balance the current account, and to stabilize prices. External debt reduction sends signals of credibility to the market, which may improve a country’s credit rating and allow it to secure lower interest payments (Biglaiser and Brown 2003: 80). Scholars have found financial incentives particularly salient in their empirical studies of privatization in developing countries with scarce capital reserves (Henisz et al. 2005). In addition, privatization may prove to be more intense when a government is part of an IFI structural adjustment program (SAP) or indebted to a multilateral institution. Both the IMF and the World Bank encouraged privatization as part of their SAPs, taking the neoliberal view that production is more efficient when left to market mechanisms in the private sector (Biersteker 1990: 485).

The different international level factors outlined above (competitiveness, neoliberal, diffusion, and shock) are confirmed by a number of cases of privatization carried out by some Latin American countries during the 1990s. However, in other sectoral cases in either the same or different Latin American countries during the same decade, contrary to what these hypotheses would predict, governments upheld nationalized sectoral development policies prevalent under ISI. This apparent incongruity during the period of late-twentieth century market-led reforms in Latin America, especially noticeable in the case of the hydrocarbon sector, presents an
additional layer of paradox for the globalization convergence hypothesis. This
paradoxical lack of policy uniformity requires therefore requires that the spotlight be
directed to prominent domestic level factors put forth in the extant literature in order to
explain privatization.

From a domestic standpoint, deregulation of strategic economic sectors and
privatization of SOEs remains one of the more controversial among different types of
“stage-two” market-led economic reforms. In domestic terms, privatization is a divisive
process because it taps into ideological sentiments as it redefines the relationship between
the state, the market, and productive sectors of national economies. As Przeworski
(1991) points out, privatization is a political-economic process that creates private
property, decentralizes resource allocation, and generates numerous distributional effects.
As a strategy for public institutions to exit their regulatory role, privatization may or may
not lead to increased institutional flexibility. Privatization enables a government to avoid
direct responsibility for adjustment to complex processes of structural adjustment and
change (Przeworski 1991).

A first domestic level hypothesis posits privatization as a matter of domestic
politics and political institutions. This line of research focuses primarily on political and
institutional factors, and particularly the constraining effect of political institutions to
explain executive decisions to pursue privatization. In Latin America, the president
typically initiates the policy making process. The new institutionalism literature posits
that formal institutional variables such as the degree of presidential power (Mainwaring
and Shugart 1997) and the volume of presidential support in the legislature (Shugart and
Carey 1992) explain a government’s ability to gain approval for and to implement
economic reforms. Indeed, privatization will also reflect the political institutional constraints that national governments face. Distinct policy choices confirm that the probability of adoption of privatization reform is dependent upon the number of veto players in a given political system, and the extent to which their preferences converge (Szakonyi and Urpelainen 2013; Tsebelis 2002). Veto-player theory highlights the institutional restriction that political actors face when pursuing their preferences (Tsebelis and Ha 2014).

A second domestic level hypothesis argues that privatization is carried out because state leaders are rational actors. In fact, studies have shown that governments enter into IMF agreements even when there is no apparent need for stabilization. In this scenario, governments use IMF conditions as an excuse to push through major privatization programs (Vreeland 2003, Doyle 2012). Breenan and Doyle (2012) point out that in some cases IFIs became politically effective scapegoats for decisions made by left- and right-wing leaders to privatize (Vreeland 2003). These choices reflect a broader trend of “depoliticization,” whereby government decision-making capacities are outsourced to non-governmental actors (Matthews 2012). Transference of key competencies away from the state by leadership may be interpreted as a rational “defensive risk management technique,” which “can help to insulate politicians in office from the adverse consequences of policy failure” while they simultaneously retain significant indirect control mechanisms (Flinders and Buller 2006: 296-297).

It has been argued that privatization is “a highly political strategy” and “a privileged policy initiative of many governments” that is far from being a “natural, inevitable response to increasing complexity” (Walters 2004: 41). In some cases,
constraints upon the effective exercise of state capacity are self-created. Governments ultimately decide when to adopt and implement privatization as well as when to reenter or reshape the political space through programs of regulation. Conceptualization of the state as a rational actor is a well-established approach in political science. Deregulation and privatization have been perceived as desirable tactics for politicians who are tied into a short-term election cycle—as they serve to discourage politicians from making unpopular decisions—and for enhancing the credibility of policy commitments through the deployment of independent expertise (Majone 2001).

A third domestic hypothesis argues that electoral incentives prompt governments to implement privatization reforms strategically. Both Murillo (2009) and Murillo and Martínez-Gallardo (2007) have argued that political competition shapes the pace and extent of state divestiture by affecting the incentives of the incumbent and his or her challenger to initiate privatization. Theories of partisanship predict that leaders of the left will be associated with privatization of a lesser degree, given its negative dislocating effects on members of the core constituency, while leaders of the right will be associated with privatization of a greater degree (Boix 1997; Doyle 2010).

Privatization has distributional effects, and is likely to be a contentious political process. Privatization gives certain actors political and economic advantages over others, which conditions the likelihood that this type of “stage-two” market reform will be a potentially unpopular undertaking (Murillo and Martínez-Gallardo 2007). Among the actors most likely to make up domestic opposition are those in public sector unions, export industries, environmental activists and others. Even unlikely beneficiaries of state enterprise have been known to oppose privatization. In Argentina, during the
administration of Raul Alfonsin, some of the fiercest opposition to privatization came from rent-seeking industrialists who benefitted enormously from lucrative contracts with the public sector (Corrales 1998). However, research has shown that once privatizations have begun, the preferences of domestic interest groups may shift considerably if the leader in power is able to build a new coalition of backers to support the reform process. Murillo (2009) and Etchemendy (2011) both show that privatization generates new political actors, including private providers, who influence subsequent policy making.

Assessment of the literature review:

The foregoing review of the scholarly debate reveals that the literatures on globalization convergence, the politics of economic adjustment, and stage-one market-led reforms have resolved questions of broad macroeconomic policy reform such as the liberalization of trade and finance undertaken during the 1980s. The events that led to the liberalization of Latin American economies in the 1990s have been well documented in the literature and are not in dispute (Palacios 2002). Forms of labor incorporation and types of ISI development models were the antecedent conditions that preceded the 1980s debt crisis (Collier and Collier 1991). The 1980s debt crisis and the breakdown of ISI were the permissive conditions that disrupted mechanisms of reproduction and path dependent trajectories. These permissive conditions altered the incentives of state and societal actors, and prompted radical structural and policy reform throughout the region (Collier and Collier 1991; Palacios 2002; Roberts 2008; Soifer 2012). But less is still definitively known about the causes of deeper stage-two reforms such as microeconomic and other
types of sectoral reform, and more specifically privatization, carried out in Latin America during the 1990s.

As indicated above, the scholarly debate on the determinants of stage-two market reforms and privatization is lacking a theoretical consensus. A number of researchers have attempted to identify the conditions necessary and sufficient for privatization to occur in an effort to establish a generalizable theory that holds up empirically across time and space. Other scholars have concentrated on building middle-range theoretical frameworks by way of cross-regional comparison. Still other scholars have focused on single case studies of reform to specific national economic sectors. Altogether, the results of these studies are inconclusive. It remains the case, as pointed out by Manzetti (1999) more than a decade ago, that these works are still not dialogue with one another. Rather, this collection of literature has “produced several ‘islands of theory’ that seem to explain only a few aspects of privatization” (Manzetti 1999).

Despite the identification of a number of potentially causal factors in the literature, analytical obstacles such as equifinality, underdetermination and overdetermination continue to obfuscate the theoretical pathway toward a comprehensive explanation of the determinants of privatization (and nationalization). This array of still competing arguments makes for an inconclusive deliberation in the extant literature. If there is any consensus at all it is that international factors drive government leaders to place liberalization and privatization on the policy agenda. Yet, still not worked out empirically is the combination of domestic factors, including the structures, institutions, and interests that condition politics and policymaking and therefore the degrees of state divestiture carried out at the sectoral level.
Two tentative theoretical assessments may be drawn from the preceding literature review. First, despite prevailing assumptions that economic factors alone lead to stage-two reforms like privatization, empirical research by CPE scholars suggests otherwise. Among the various factors put forth in the more recent CPE literature, no factor alone is able to lay claim to a direct causal explanation of privatization. In fact, this survey of the debate indicates that there may not be just one singular factor able to confirm a direct causal relationship.

Second, what the literature review makes most evident is that multi-causality and complex causal mechanisms are present in moments of privatization. It indicates that in addition to economic factors, structural, institutional, political, and coalitional factors may to varying degrees also be determinants of privatization. Accordingly, the literature review has drawn out a set of competing hypotheses that could potentially explain market-led reforms, and specifically privatization, in the place and time under investigation in this dissertation. These competing hypotheses inform this study’s analytical framework, which is laid out in chapter 3, and is tested in chapters 4 - 6 on the hydrocarbon sector in Latin American countries.

Conclusion:

Empirical analysis of hydrocarbon sector development policy during and since the 1990s shows that tremendous cross-national variation in policy persists throughout the region. In addition, the empirical evidence suggests that national policies actually diverged considerably since the beginning of the 1990s. Moreover, contrary to conventional
wisdom on globalization convergence, policy has been both diverse, and in some cases volatile or deeply ingrained across countries in Latin America.

Of the competing theoretical approaches evaluated, none is individually sufficient to explain the varied dynamics of market reform and privatization of national-level hydrocarbons in Latin America. A focus on systemic-level incentives and interests, and considerations of market competitiveness are somewhat useful for explaining privatization policies. But it is put forth in this study that domestic-level approaches best illuminate the factors that condition both the policy making process, and the resulting policy choices that fall along a categorical continuum between nationalized and privatized national hydrocarbon sectors. Structural, institutionalist, and interest-based explanations of hydrocarbon sector development policy identify the specific mechanisms through which domestic political factors condition cooperation and conflict in policymaking. These competing schools of thought inform this dissertation, and are further engaged in chapter 3.
Chapter 3 - Analytical Framework and Research Design

“The revenue of the state is the state. In effect, all depends upon it, whether for support or for reformation.” –Edmund Burke, 1790

Chapter overview:

My review of the literature in chapter 2 demonstrated that a market efficiency perspective to understanding economic policymaking based solely on rational market-actor provision of scarce resources is inadequate for cases of national hydrocarbon sector development. Given the limited explanatory power of market efficiency explanations, I draw upon the literature reviewed in chapter 2 to develop an alternative analytical framework to explain hydrocarbon sector development policy choices in the Latin American setting during the 1990s. Apart from laying out the analytical framework, the independent variables, and the set of primary hypotheses to be tested in the comparative analysis, this chapter also spells out my research design.

Broadly speaking, the analytical framework of this dissertation is institutionalist. My institutionalist analytical framework departs from the work of North (1990), Mahoney and Thelen (2009), Pierson (2004), Spiller and Tomassi (2007), and Soifer (2012) and that of other “new” institutionalists. Specifically, mine is a “critical junctures” historical institutionalist approach that recognizes the influences of structures, institutions, and agents upon national institutional continuity and change, and by extension, the policymaking process (Collier and Collier 1991). Moreover, a

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18 See Aoki (2007: 6) for a concise definition of institutions.
19 See Pierre et al. (2008: 232-240) for a survey of the new institutionalist conceptual and theoretical literature. See Firmin-Sellers (1996: 153-154) for an explanation of the new institutionalist approach’s ability to balance the realms of politics and economic with analytical clarity.
fundamental organizing principle of this work is that economies are embedded in the societies they operate within and that economic-sectoral policy must therefore be studied within its social context. For that reason, I further identify mine as a sociological institutionalist analytical framework. Finally, the analytical framework also gives centrality to the choices made by Latin American presidents and other influential actors involved in the policymaking process, making my approach one based upon the bounded rationality of agents (Aoki 2000: 6-7). In summary, following the scholars cited above, and Robert H. Bates, the analytical framework is eclectic or “new” institutionalist, and aims to explain the politics of formulation, approval and implementation, as well as the politics of rejection of hydrocarbon sector development policy reform in Latin America.20

My approach replicates that taken by Spiller and Tomassi (2007), who capture the essence of historical institutionalism:

We believe that the behaviors and outcomes we are interested in are not the result of a single factor but of the interaction of many factors. Thus, we take a systematic approach to studying the connection between institutional variables and the policymaking process. Because we feel it is misleading to characterize countries by a small number of institutional characteristics identified a priori, we proceed backwards from identifying relevant outcomes – the characteristics of public policies, our dependent variable – to characterizing the policy-process that led [to] those outcomes and then to identifying the institutional and historical reasons the policymaking process operates as it does. This “archaeological” approach requires a deep immersion in the workings of politics and policymaking in each country studied” (Spiller and Tomassi 2007: 4-5).

Spiller and Tomassi’s adapted approach is further illustrated in Figure 1.

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20 Bates (forthcoming) defines new institutionalist theory and its three schools of thought as follows: (1) rational choice institutionalism sees institutions as systems of rules and inducements to behavior in which individuals attempt to maximize their own utilities. In contrast to proponents of rational choice in the purist microeconomic sense, this approach argues that political actors’ choices are constrained or bounded by competing factors; (2) historical institutionalism argues that paths chosen early on in the existence of an institution tend to be followed throughout the institution’s development. Institutions will have an inherent agenda based on the pattern of development, both informal, i.e. the way things are generally done, and formal, i.e. laws, sets of rules, and institutional interaction. A key concept in the historical tradition is path dependency, i.e. inevitable patterns and occurrences. Institutional paths are not necessarily permanent. Critical junctures may allow rapid change at a moment of great crisis; (3) sociological institutionalism emphasizes the ways in which institutions create meaning for individuals, providing important theoretical building blocks for normative institutionalism.
Following Spiller and Tomassi (2007), my institutionalist approach captures the unique twentieth century legacies of Latin American development that, in conjunction with structural antecedents and contemporary actor choices, inform the reform period of the 1990s. In the new institutionalist tradition, the study’s focus is on processes of meso-level economic-sectoral institutional, i.e., middle-range, continuity and change over time (Kohli et al. 2005). The analytical framework of this study is particularist and contingent (Parsons 2007). The scope conditions of the study base it spatially within Latin America and temporally during the 1990s (Mahoney 2007). No explicit attempt is made nor is
there any intent for the study’s conclusions to generalize beyond other Latin American hydrocarbon producing countries.\textsuperscript{21}

This chapter is organized in the following manner. First, I further elaborate and justify my “new” institutionalist approach to explain cross-case continuity and change in the dependent variable, SOC, over time. Second, I introduce, operationalize, and establish the indicators for two independent variables that I argue jointly determine the nature of reforms to SOC in the hydrocarbon sector. These two independent variables are: (1) state capacity and (2) reform coalition configuration. Third, as an extension of the theorized interactions between these two independent variables and resultant outcomes on SOC, I put forth my research hypotheses, as well as a set of hypotheses based on alternative explanations raised by works in the extant literature. These hypotheses serve as the main conceptual underpinnings for my empirical analysis. In the fourth and final section of this chapter, I lay out my research design for empirical analysis, which I then demonstrate as detailed narratives in the country case chapters in Chapters 4 - 6.

\textit{Explaining hydrocarbon sector development policy reform in Latin America during the 1990s: ‘To privatize or not to privatize?’}

My historical institutionalist analysis conceptualizes the 1990s in Latin America as a period of divergence brought about by a preceding period of critical juncture during the

\textsuperscript{21} As pointed out by James Mahoney (2007), “Almost all theories in the social sciences are designed to apply to some cases and not others; social science theories are bound by “scope conditions” that put limits on their generality. Specifying the scope of a theory accordingly must be viewed as a major part of theory development itself. In recent years, qualitative methodologists have begun to develop a set of best practices for researchers to follow when formulating this part of their theories (Collier & Mahoney 1996; Mahoney & Goertz, 2004, 2006; Ragin 2000).”
Following Soifer (2012), my critical juncture framework specifies sets of antecedent conditions and mechanisms of reproduction, as well as sets of permissive and productive conditions. The framework does so in order to facilitate analytical precision toward identification of the factors that link crisis to policy (institutional) continuity or change, and toward the differential causal effects of my independent variables.

The critical juncture period of the 1980s was preceded by a set of three antecedent conditions, one mechanism of reproduction, and by a set of three permissive conditions. The three antecedent conditions are: (1) the form of ISI (structure of exports); (2) the founding mission of the NOC; and (3) the pattern of political coalitions (state-society relations). The antecedent conditions do not produce a causal effect by causing the independent variables to emerge. They do so by helping to determine the causal effect of the independent variables across cases when the critical juncture exogenously comes about (Slater and Simmons 2010). The mechanism of reproduction is the bureaucratic or inclusionary authoritarian regime (O’Donnell 1973; Kaufman Purcell 1975). The mechanism of reproduction begins to erode with the emergence of three permissive conditions, and this moment marks the beginning of the neoliberal critical juncture. The three permissive conditions are: (1) the rise in international interest rates; (2) debt crisis and hyperinflation; and (3) the decline in international petroleum prices. Political-economic crises led, at least, to a weakening of the ruling coalition, and at most, to

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22 In keeping with Soifer (2012), my definition of critical junctures is based on an analysis of the factors that produce continuity or change during historical moments in a given case. Per Capoccia and Kelemen (2007), Slater and Simmons (2010), Soifer (2012), the presence of factors that promote the loosening of the constraints of structure to allow for agency or contingency to shape within-case divergence from the past, as well as concurrent cross-case divergence are what distinguish critical junctures from more common historical junctures.
regime transition. These antecedent and permissive conditions were met to varying degrees by four coincidental productive conditions: (1) the globalization of world production through the reintroduction and acceleration of market economics; (2) the general rise of neoliberal ideology and the worldwide proliferation of this view via the influence of IFIs; (3) the ascension of an outsider political leader capable of overthrowing the macroeconomic and microeconomic status-quo; and (4) severe economic crisis in excess of hyperinflation (Weyland 2002; Soifer 2012). The outcome involved: (1) breakdown of the ISI development model (Weyland 2002); (2) implementation of orthodox market and structural reforms; and (3) reorientation of state-society relations to the constraints of market globalization. The 1980s critical juncture played out in the region until the close of the twentieth century, accompanied by the realignment of political coalitions and the weakening of party systems amidst the reintroduction of democratic politics. Democracy and elections served as a mechanism of reproduction in the overall framework. For summary, see Table 2.

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23 Bornschier (2009), in a discussion of the apparent waning of historical cleavages and the rise of new divisions related to the intensification of globalization, points to the occurrence of critical junctures that call into question traditional understandings of cleavage politics. Bornschier denotes the weakening of the established structure of coalition and conflict as dealignment, and denotes the forging of new links between parties and social groups as realignment.
### Table 2: Neoliberal Critical Juncture Framework

<table>
<thead>
<tr>
<th>Component</th>
<th>Empirical Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antecedent Conditions (1950s-1960s)</strong></td>
<td>(1) Form of state-society relations&lt;br&gt;(2) Form of ISI&lt;br&gt;(3) Founding mission of NOC</td>
</tr>
<tr>
<td><strong>Mechanism of Reproduction (1960s-1970s)</strong></td>
<td>(1) Bureaucratic or Inclusionary authoritarian regimes</td>
</tr>
<tr>
<td><strong>Permissive Conditions (early-1980s)</strong></td>
<td>(1) Rise in international interest rates&lt;br&gt;(2) Debt crisis and hyperinflation&lt;br&gt;(3) Decline in international petroleum prices</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td>(1) State capacity [X1]&lt;br&gt;(2) Reform coalition configuration [X2]</td>
</tr>
<tr>
<td><strong>Productive Conditions (1980s)</strong></td>
<td>(1) Globalization of production via market economics&lt;br&gt;(2) Neoliberal ideology and influence of IFIs&lt;br&gt;(3) Severe economic crisis in excess of hyperinflation&lt;br&gt;(4) Ascension of a leader who overthrows status-quo</td>
</tr>
<tr>
<td><strong>Outcome (1980s-1990s)</strong></td>
<td>(1) Breakdown of ISI&lt;br&gt;(2) Varied adoption of orthodox structural reforms&lt;br&gt;(3) Reorientation of state-society relations to the market</td>
</tr>
<tr>
<td><strong>Dependent Variable</strong></td>
<td>(1) Hydrocarbon sector development policy [SOC]</td>
</tr>
</tbody>
</table>

Source: Author adaptation of Soifer (2012)

Institutional and policy reform are thus the central focus of this dissertation, which therefore performs two functions. First, the dissertation details the substantive changes that either did or did not take place in the institutional framework for hydrocarbon sector development. The extent of reform and variation in reform among my country cases are spelled out. I trace the processes of institutional and policy reforms that led to changes in national and cross-national patterns of policy choice surrounding privatization of the hydrocarbon sector. Second, the dissertation is guided by the institutionalist claims that countries have differing but stable institutional frameworks and that when critical junctures unfold and institutional change occurs, countries may follow...
different paths. This research analyzes the process of institutional continuity and change to uncover how and why institutional contrasts developed in Latin American countries despite common pressures for change. The differing experiences of Latin American countries uncovered by my research offer worthwhile empirical evidence for future discussions of the conditions under which reforms are either approved and implemented, or rejected.

The logic of hydrocarbon sector development policy reform:

As discussed in chapter 2, the study’s dependent variable is hydrocarbon sector development policy (proxy is SOC), which is measured on a categorical continuum between the two polar choices of a nationalized policy or a privatized policy. Empirically, I examine the hydrocarbon sector in Argentina, Brazil, and Mexico during the 1990s.

Based on my review of the literature, I argue that the most promising pathway to new empirical analysis of privatization reform, in any given case, is one that engages structural and institutional factors with state-society relations. Presidents face a number of constraints and incentives when considering whether or not to introduce privatization reforms, and then again once a choice is made to actually place such a proposal on the reform agenda (Breen and Doyle 2012: p. 5). To capture and assess the role of these

24 Recent studies of policy in advanced democracies for technically complex and capital intensive public utilities emphasize the intersection of technological and competitive pressures with institutional effects, and especially the role of technical bureaucracies (Thatcher 1999). Most of these studies of public-utility reforms undertaken in response to globalization pressures in advanced capitalist countries follow the literature on “varieties of capitalism” (Hall and Soskice 2001). These studies point to macro-institutional differences and argue that different institutional configurations generate incentives for state and societal actors to pursue a variety of different policies in different national economic-sectoral settings.
incentives and constraints, I focus on two main independent variables: (1) state capacity; and (2) reform coalition configuration. Interaction between these two measurable concepts yields a range of perceivable policy choices, or outcomes on my dependent variable proxy, SOC.

\[ X_1: \text{State capacity:} \]

There is a rich and extensive literature that defines the concept of state capacity, and numerous empirical analyses have been conducted that employ this concept as a variable. In different studies, scholars of development have engaged state capacity as either a dependent (Tilly 1990) or as an independent variable (Haggard 1990). The literature therefore offers a number of different ways by which to define, operationalize and measure state capacity.

The political science literature on development and world politics prioritizes the state as a key conceptual variable. Competition and conflict in the international system require that countries be equipped with capable central governments able to collect and distribute resources effectively (Bates 2010; Huntington 1968; Moore 2003; Tilly 1975). According to these definitions, state capacity is an important power capability in international relations. In contrast, dependency and world systems perspectives define state capacity in differential and relative terms of states to one another, based on stages of historical economic development (Gerschenkron 1968; Prebisch 1950; Wallerstein 1974).

At the domestic level of analysis, scholars have defined state capacity as the “degree of government” of a society (Huntington 1968; Domínguez 2001). Tilly defines
the concept as “the extent to which the governmental agents control resources, activities, and populations within the government’s territory” (Tilly 2003: 41). Similar is Mann’s definition, for whom state capacity is “the capacity to organize and control people, materials, and territories” (Mann 1986: 2-3). Similarly, state capacity has been defined as government penetration throughout society for the purpose of resource extraction (Almond and Powell 1966: 35, 244). Government requires the steady inflow of revenues, and the state’s ability to collect revenues is referred to as extractive capacity. Extractive capacity and the ability to tax citizens are prerequisites to all other functions of the state. In order for it to make and conduct policy, a government needs to be able to mobilize resources. A state with low levels of capacity is defined as weak and incoherent, where “officials cannot carry out the policies they choose” (Geddes 1994: 14).

Given this study’s empirical setting of Latin America and the Latin American region’s undisputed historical “late” and “dependent” development (Gootenberg 2001), national export structure informs my definition of state capacity.25 Since at least as far back as the theses of Prebisch (1950) and Singer (1950) a definition of state capacity based on national export structure has contributed to an established and still growing body of literature on economic development (Chenery and Syrquin 1986, 1988). This literature argues export structure in general, and concentration in natural resource exports in particular, influences economic development outcomes (Bates 1997; Dogruel and Tekce 2010; Isham et al. 2005; Jetter 2014; Lederman and Maloney 2007: 15-33; Shafer 1994; Sinnot 2009; Teitel and Thoumi 1986). These studies are complemented by studies that contend more specifically that hydrocarbon resource export revenues affect

25 See Garretón et al. (2003: 2) and López-Alves (2000: 25) for more extensive definitions of the Latin American state.
economic growth (Auty 1993, 2001, 2006; Gylfason 2001; Lederman and Maloney 2007; Ross 2012; Sachs and Warner 2001; Sala-i-Martin and Subramanian 2003). The contribution of my “new” institutionalist analytical framework is to extend this chain of causation backward. I argue that national export structure causes institutional formation, continuity and change, as well as policy choice at the sectoral level. More specifically, I contend that national export structure determines mechanisms of extractive capacity and therefore, state capacity.

Extractive capacity is one of the main characteristics of the modern state because fiscal revenue is tied closely to the state’s ability to rule (Chaudry 1997; Karl 1997; Levi 1988: 2; North 1981: 21; Organski and Kugler 1980; Shafer 1994). Extractive capacity is well conceptualized in the extant literature, but as pointed out by (Wang 2001), that same literature tends to focus too heavily on the level of extraction states achieve as it overlooks the mechanisms the state deploys to extract resources from society. Not enough emphasis has been placed on the pathways that state capacity inspires, or the action of causal mechanisms. In fact, state actions such as taxation or technological research are contingent upon a minimum level of state capacity. The extractive capacity of a political system depends on whether the system can develop a set of sound institutions to tax society (Bates and Lien 1985; Blofield 2011; Lewis 2007: 45; Melo 2010). State capacity is therefore selected as one of the primary independent variables of

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26 Following Jones, Luong and Weinthal (2010), an implication of my research is that variation on my dependent variable, SOC, i.e. policy choice, down the theoretical chain of causation, impacts economic performance.

27 My study, therefore, contributes to a growing stream of institutionalist literature on the resource curse that builds upon the earlier development economics literature. This stream of institutionalist literature argues that institutions—not solely natural resources—are a key determinant of development outcomes in natural resource-rich countries (Brunnschweiler 2008; Brunnschweiler and Bulte 2008; Jones Luong and Weinthal 2010; Mehlum, Moene and Torvik 2006; Orihuela 2013; Sinnot, Nash, and de la Torre 2010; Stevens and Dietsche 2008).
this dissertation with the understanding that it is a multidimensional concept. State
capacity is selected due to the propensity for hydrocarbons to generate tremendous levels
of fiscal revenue that accrue to the state. State capacity is selected, too, because of the
influence of the state on planning, research, and acquisition of technology for
development of economic sectors (Evans 1979; Evans 1995; Linz and Stepan 1996: 12).

Consistent with the extant literature, state capacity is operationalized by extractive
capacity (Lewis 2007: 45). In addition, the dissertation puts forth a conceptual
advancement, as state capacity is also operationalized by technological capacity (Bijker
2006: 681-706; Lederman and Maloney: 8-9). Extractive capacity is indicated by overall
tax revenues as well as non-tax revenues and royalties collected from the hydrocarbon
industry. Following Jones, Luong, and Weinthal (2010), measurements on a country’s
extractive capacity are indicated by the extent to which a government is reliant upon the
upstream hydrocarbon sector for federal tax revenues. The more reliant a country is upon
the hydrocarbon sector for fiscal revenues, the lower its extractive capacity. In contrast,
the more diversified a country’s export structure and thereby its federal fiscal revenues,
the higher will be a state’s extractive capacity. Technological capacity is indicated by the
degree of modernization, performance, and global competitiveness of the NOC; the
higher the measurement on these indicators for a given NOC, the higher a country case’s
degree of technological capability, and the converse.\footnote{A variety of data on revenue extraction are available, including from the IMF’s Government Finance Statistics, World Bank, UN, OECD, and CEPAL/ECLAC, all of which are relied upon for this dissertation. In addition, my analysis relies upon the newly created International Center for Tax and Development (ICTD) Dataset (2014). Unlike other datasets on revenue extraction, the ICTD attempts to gather national-level data for non-tax fiscal revenue from the production of natural resources such as hydrocarbons.}

\footnote{James M. Cypher (2014: 492) defines technology as “accumulated human knowledge applied to the production process.”}
Given the above, my analytical framework further recognizes that “the state is not merely a set of institutions” (O'Donnell 1978). The state “also includes – fundamentally – the network of relationships of “political” domination activated and supported by such institutions in a territorially defined society, which supports and contributes to the reproduction of a society’s class organization” (O'Donnell 1978). Following O’Donnell, and in keeping with a sociological approach, this research is guided by the principle that, in the Latin American context, problematization of the state requires that it be understood in terms of class-based coalitions, in addition to its formal institutional structure. For that reason, my analytical framework predicts that state capacity in conjunction with reform coalition configuration explain outcomes on my dependent variable proxy, SOC.

$X_2$: Reform coalition configuration:

It has been argued that state autonomy$^{30}$ is a precondition to taxation because such autonomy insulates state bureaucracy from capture by interest groups (Corbacho and Fretes Cibils 2013). However, as illustrated by my review of the literature on market reforms and privatization, state-centric “insulated leader” approaches have been revealed to be insufficient to explain “stage-two” economic-sectoral reforms. Statist literature that focuses on the capability of the executive and technocrats to operate in a particular type of formal institutional structure that promotes autonomy tends to ignore the societal pressures, bargaining, and struggles that shape institutional and policy reform.

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$^{30}$ In her definition of state autonomy, Nora Hamilton (1981) recognizes the influence of societal actors, and asserts that “the state is constrained not only by its position within the class structure and the direct and indirect pressures exercised by the dominant class segments but also by the demands and pressures of subordinate classes and groups.”
Distributive conflicts influence sectoral policy reform, and therefore, as Haggard and Kaufman (1992: 8) point out, “the key theoretical issue is the weight that should be placed on social and economic interests in explaining the reform process.” This perspective provides the theoretical justification for my second independent variable: reform coalition configuration. In addition to state capacity, hydrocarbon sector development policy reform is also dependent upon the socio-political forces that favor or oppose it.

As a concept, reform coalition configuration is defined by the extent to which the reforming executive is able to mobilize societal actors to support the proposed privatization reform. Specific societal interest groups have preferences for policy reform choices and outcomes. The scope of these groups includes labor unions, businesses, the military, and the individual voter. Each of these actors represents a potential “winner” or “loser” as a consequence of privatization reforms. Reform coalition configuration is a variable that measures the dynamic forces of state-society relations during the reform process, and it reflects the preferences of societal actors as shaped by the state (Bartell 1994: 71-94; Etchemendy 2011; Kurtz and Brooks 2008; Polanyi 2001; Richardson 2009; Schneider 2004a; Topik 2001). This variable echoes the theoretical advancements of the CPE literature on stage-two economic reforms. As Etchemendy (2011) points out, governments of semi-closed economies engage in complicated bargains with certain established interests in order to make the reform path sustainable. Following Etchemendy (2011), this analysis aims to identify the bargains struck between the state and societal actors in the upstream hydrocarbon sector, as attempts were made to transition from ISI to market-led economies.
For the purposes of this study, as a concept, the state is defined by the ruling coalition. I apply a coalitional approach that organizes competing interests between ruling and opposition coalitions. To analyze their role in the policy making process, one must examine coalition preferences, strategies, and outcomes. The circumstances a coalition finds itself in conditions its strategies and outcomes. A coalition will adapt its behavior to its circumstances. For ruling coalitions to implement their preferred policies they must be cohesive and possess sufficient political resources to win over opponents. A cohesive coalition is one with a high level of consensus on overarching political and policy objectives.

Coalitions can be classified by their orientation toward particular issue cleavages (Waterbury 1993: 192). One of the most salient issue cleavages is orientation toward the international market. A number of scholars of CPE have classified coalitions based on their orientation toward the international economy (Bates 1997; Frieden 1992; Rogowski 1990; Shafer 1994). Market-controlling coalitions are comprised of interests who benefit from protection against international market forces. In contrast, interests who benefit from openness to the international market count themselves in market-conforming coalitions. International market integration creates proponents among those for whom integration is a benefit while it creates opponents among those for whom it is a detriment. International market orientation is an appropriate issue cleavage for this analysis due to the heavy involvement of foreign capital in the hydrocarbon sector.

Antecedent conditions determine the orientations of coalitions. Market-conforming coalitions base their political survival on less state involvement in economic decision-making. In so doing, market-conforming coalitions advocate for fiscal
discipline, export-led growth, and integration into the international market. In contrast, market-controlling coalitions consolidate power by lobbying the state against international market risks. In economic terms, market-controlling coalitions advocate for a strong and active government that controls prices, increases nominal wages, overvalues the currency to raise wages, protects economic sectors and SOEs, and discourages imports. Their preference is for greater levels of state ownership and control of national productive sectors. Market-controlling coalitions tend to be ideologically nationalist, opposing economic liberalization in part because it deprives these same coalitions of their nationalist “mythmaking” ability.

Coalitions are comprised of a number of state and societal actors. For empirical purposes, patterns in a coalition’s membership and its engagement with actors outside the coalition can also shed light on its issue cleavage orientation. Frequently, market-controlling coalitions are populated by the military and by labor unions. Similarly, state bureaucracies involved in economic planning or market regulation would resist liberalization. In the hydrocarbon sector, IOCs and business associations generally support privatization for the new business opportunities that it represents, even though they might also expect to be protected from the international market (Bartell 1994: 71-94). Oil sectors represent a mix of domestic and foreign capital. Union membership in the sector will necessarily be in favor of protection from market forces. Meanwhile, IFI influence played a role in the privatization reforms of the 1990s. Key to the economic liberalization that swept through Latin America in the 1990s was the support of IFIs such as the IMF and the World Bank (Weyland 2002). IFI influence can shape politicians’ reactions to economic crises and add or remove options from the table. A ruling
coalition’s reaction to the IFIs illustrates its orientation. For example, does it embrace IMF proposals or does it demonize the IMF to drum up political support? The former would be market-conforming while the latter would be market-controlling.

To measure variation in the concept of reform coalition configuration, I apply a categorical variable created by Ben Ross Schneider (2004a). Schneider (2004a) specifies four categorical coalitional outcomes found in the politics of economic reform: (1) electoral; (2) legislative; (3) distributional; and (4) policy coalitions. Each of these types of coalitions represents an enriched measurement of this multidimensional categorical variable (Shively 2011). There are four dimensions or indicators to the Schneider (2004a) reform coalitions variable, including: (1) type of members; (2) primary activities; (3) basis of exchange; and (4) interaction among members. I settle on this definition and measurement of reform coalition configuration because it most effectively captures political patterns and the actor economic interests they shape (and are shaped by) during uncertain periods of reform, as was the case in Latin America during the 1990s. The preferences of a coalition are defined based on an examination of the net preferences of the groups that support it, the statements (official and unofficial) made by representatives of the coalition, the policies pursued by the coalition, and the outcomes of those policies; public statements and member preferences offer the clearest classification.

Once a given executive chooses to pursue privatization reforms, the process becomes one that is guided by state-society relations, determinant upon institutional constraints and competing actor incentives. This framework allows for consideration of the relevance of other factors discussed in the literature review as possible causes of reform. Therefore, a number of possible explanatory hypotheses may be formulated. My
An inductive approach to research examines these different hypotheses, and aims to sort out and clarify the determinants of hydrocarbon sector SOC in Latin America during the 1990s.

_Hypotheses:_

My theoretical framework is inductive, but it also puts forth a number of claims grounded in my review of the literature in chapter 2. My theoretical framework emphasizes the role of state capacity and institutions, and the ability of state actors to construct and maintain coalitions of support for the implementation of market-oriented reforms in the hydrocarbon sector. The preferences of the executive play a central role in determining the shape and nature of hydrocarbon sector development in Latin American countries. In the 1990s, Latin American governments balanced macroeconomic incentives for reform and privatization with nationalist pressures to maintain the status quo of nationalist policies. An essential condition for reform is the incumbency of a state elite with a shared commitment to a modification of the traditional policy (Huber Stephens 1987). Political institutions shape the nature and the process of policy reform and constrain actor preferences. Institutional design determines whether the policy formulation is either decisive or mixed. The likelihood of success of the state elite’s attempts to modify policy further depends on the weakness of economically dominant interests relative to the strength of the organized popular support base for a modification of the policy pattern (Huber Stephens 1987).
I further hypothesize that a full explanation that goes beyond the policy formulation stage (to approval and implementation) requires that one look to the role of societal preferences and interests through reform coalitions (Schneider 2004a). During the legislative and policy approval stages, the executive is at times pressured to co-opt certain societal interests, especially hydrocarbon sector labor unions, but also some satellite business interests that are dependent on NOCs. These societal interests can be bought off with side payments. In short, the state-centric institutional approach appears to best explain hydrocarbon sector policy choice. The coalitional approach is a corollary argument that may be relevant, particularly at the stage of policy approval and implementation.

From the interaction between my independent variables, I generate two primary hypotheses:

- **H-1**: In Latin American countries with diversified economies and a productive hydrocarbon sector, the broader the scope of state capacity, the lower the likelihood of privatization of the hydrocarbon sector.

- **H-2**: In Latin American countries with diversified economies and a productive hydrocarbon sector, the more pro-market the reform coalition configuration, the greater the likelihood of privatization of the hydrocarbon sector.

The above framework and hypotheses suggest that two key explanatory factors, while incapable of independently explaining variation in SOC, when considered in interaction with one another, yield the following expected outcomes, as demonstrated in Figure 2.
As shown above, in cases of reform, the interaction between state capacity and the reform coalition configuration yields a number of different outcomes on SOC, the categorical dependent variable of this dissertation. Through my empirical research, I find that state capacity, an institutional factor, determines SOC, but that it does not do so singularly. This determinant’s effect is conditioned by strength of support for policy reform by a given reform coalition, a political factor.

Hydrocarbon sector development policy choices in Latin America during the 1990s provide strong support for institutionalist claims that disparate institutional arrangements lead to cross-country variation in policy choice. The impact of national and sectoral level institutions is observable in three ways. First, regardless of the powerful external pressures brought by technological and economic change, Latin American

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**Figure 2 – Conditions for Hydrocarbon Sector Development Policy Reform**

<table>
<thead>
<tr>
<th>Reform Coalition Configuration</th>
<th>Pro-market</th>
<th>Broad</th>
<th>Narrow</th>
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</thead>
<tbody>
<tr>
<td>Pro-state</td>
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<tr>
<td>Flexibilization</td>
<td>Privatization</td>
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<td>Liberalization</td>
<td>Nationalization</td>
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Source: Created by author
countries pursued increasingly contrasting policies for their hydrocarbon sectors. In fact, national economic and political institutional reforms increased divergence among countries in the organization of their hydrocarbon sectors. Second, policy patterns can be linked to national institutional characteristics. The roles of specific institutional features can be traced to policy choices in each country. Specifically, my institutional analysis reveals the ways in which policy choice was constrained or encouraged by: (1) institutional powers of the political executive; (2) the degree of legal separation between the NOC and the political executive; and (3) the absence or presence of an independent regulatory body to enforce sectoral development policy. Third, institutional reform, especially in Argentina and Brazil, was followed by policy changes. Hence not only did major cross-national and temporal contrasts exist, but they can be linked in particular to institutional characteristics. In Argentina, Menem was able to introduce major reforms in a short space of time. In contrast, institutional change in Brazil was a slow and tortuous process, while in Mexico reforms were essentially blocked and rejected. Meanwhile, public choice arguments may provide a plausible explanation for the failure of hydrocarbon sector reform in the Mexican case, but they are less useful to account for the variation in policies in Argentina and Brazil during and since the 1990s.

In further support of my thesis, the hydrocarbon sector may also be considered a “most likely” case to test theories of CPE that engage competing domestic actor interests and policy preferences for sectoral development. In Latin America, the hydrocarbon sector displays a number of unique domestic political-economic demonstration effects. In addition to being highly sought after at the international level, hydrocarbons are also greatly valued as a factor of production at the national level. Hydrocarbons fuel
production in most other national economic sectors, including electricity and telecommunications. These other productive sectors and industries, in addition to other consumers, depend on oil and gas product provision, pricing, and government price subsidies in order to make their own contributions to the broader economy. Thus, it may be said that hydrocarbons are a first order condition of national economic development.\(^{31}\) But to further complicate matters, the hydrocarbon industry is prone to market failures,\(^ {32}\) including production, consumption and pricing externalities, monopoly power, and high information costs. Compared to all other economic sectors, hydrocarbon sector development policymaking generates perhaps the most intricate of all arrangements between the state and the market, shaped by competing interests, ideas, and policy preferences brought to the forefront by domestic and foreign actors directly involved in or reliant upon the sector itself (Evans 1995). Therefore, a test of my hypotheses on the hydrocarbon sector offers the opportunity to uncover causal mechanisms not previously identified in the extant “second wave” CPE literature on market reforms.

*Alternative explanations:*

Notwithstanding the assurances set forth above as to the soundness of my analytical framework, a concern for the study’s internal and external validity compels me to consider the relevance of a number of alternative explanations. It stands to reason that

\(^{31}\) See Verleger (1987: 161-186) for an explanation of the emergence and evolution of oil as an important commodity in the international economy, and the changing nature of the international oil market.

\(^{32}\) Market failures occur when markets don’t allocate goods and services efficiently. They also arise when market forces fail to serve the perceived public interest. Meanwhile, government regulation is also capable of inducing market failure. Excess market power (monopoly and oligopoly) in the oil market can constitute a market failure. Monopoly power may prevent the market from achieving efficiency. From society’s perspective, monopoly power causes insufficient production in the interest of profit maximization. A monopoly produces less than does a competitive industry. Restricting output increases profits.
theories of globalization and resource nationalism present my research with two alternative research hypotheses:

First, development policy for the hydrocarbon sector represents a “most likely” case to test the IPE globalization convergence hypothesis. Hydrocarbons are a unique economic sector for analysis within the broader globalization convergence debate. The upstream segment of the oil sector is not a public utility or service. Rather, hydrocarbons are an exportable commodity capable of generating massive amounts of foreign exchange and economic rents. In their capacity as proven reserves, hydrocarbons may also serve as collateral for governments that seek to secure international financing. An internationally traded commodity, hydrocarbons are more likely to be impacted by international market conditions. International pricing of oil is one of the factors most important to the industry. International petroleum prices have been prone to volatility since the Middle East shocks of the 1970s as illustrated in Figure 3.

Notably, Figure 3 further illustrates the net decline in prices that took place over the course of the 1990s followed by a steady incline in prices from 2000 to present. These trends in international prices impact the political and economic value of hydrocarbons at the national level. Oil is the most important natural resource in the world, in both economic and political terms. Hydrocarbon sector development is known for its capital and technological intensity. With these features, we should expect

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33 Price shifts can be caused by an imbalance between supply and demand. Prices for oil products may also reflect subsidies and taxation. Oil prices are also a function of the rate of investment over the longer term. Speculation is also factor. If spot market traders believe there will be a shortage of oil supplies they may bid up oil futures prices. Other factors that may influence price include supply curtailments from any given country, labor disputes, natural disasters and war.

34 In his 2008 book, The Bottom Billion, Paul Collier predicts the continued significance of petroleum to the global economy if only due to the fact that it represents an unmatched source of concentrated energy measured in BTUs. If, to this, one adds fungibility and ease of transport as two other characteristics unique to petroleum, it is understandable that it is still considered the most important natural resource in the world.
there to be an increased influence by three of the most commonly argued explanations for late-twentieth century market reforms, namely financial markets, international financial institutions (IFIs), and technocrats. Therefore, the presence or absence of reforms to this sector is a good test (a “most likely” case) of the convergence hypothesis.

Figure 3 – International Petroleum Prices (1940-2013), Constant 2013$/bbl.

International pressures, particularly the coercive influence of IFIs and commercial lenders, prove the most reliable alternative predictors of upstream hydrocarbon sector privatization in Latin America (Lewis 2007: 23; Pop-Eleches 2009; Vreeland 2003). When a government is in severe financial distress, the pressure to adopt market reforms such as privatization may increase significantly (Haggard and Kaufman 1995; Weyland 2002), which yields the following alternative hypothesis:
H-3: When a Latin American country with a productive hydrocarbon sector experiences extreme hyperinflation induced by international debt crisis, we should observe increased levels of privatization.

In Latin America, external factors appear to figure most prominently in the cases of Argentina and Bolivia and their hydrocarbon sectors during the 1990s. IMF-sponsored SAPs and financial constraints gave leadership in both countries sufficient reason to pursue privatization of the upstream oil and gas industry. Yet, this explanation is incomplete for all Latin American countries. Brazil and Mexico entered into conditionality agreements with IFIs, yet neither country privatized hydrocarbons during the 1990s. It must be said, however, that in both of these cases, sectoral policy reform was in fact introduced prior to being rejected, for different domestic reasons that the country case chapters of this dissertation explain below in greater detail.

Second, the hydrocarbons sector is also a “most likely” case to test theories of resource nationalism. CPE researchers of economic-sectoral reforms in Latin America have noted that in contrast to electricity and telecommunications, hydrocarbon resources generate a more pronounced “sovereignty perceptions” dynamic (Murillo 2009). In other words, hydrocarbons have an intrinsic connection to national identity and patrimony that is particularly pronounced in Latin America. The origin of this association can be found in the legacy of early- to mid-twentieth century development of and wealth extraction from the region’s hydrocarbon resources by foreign market actors. With Denmark, Great Britain or the US as their home country, these earliest foreign actors, also known as “trusts,” came to represent the ills of imperialism and their presence periodically prompted great public outcry (Philip 2007; Smith 1976). As a consequence, hydrocarbon
resource development has been influenced repeatedly by intense societal expectations in
Latin America. For that reason, unlike other traded commodities, hydrocarbons and their
derivatives are often considered to be a public good in the sphere of political economy.
Because of this, populism and symbolic politics have often influenced hydrocarbon sector
development policy. Under the influence of this resource nationalism dynamic, during
different epochs, politicians have framed strategic productive sectors such as
hydrocarbons as too vital to national interests and national security to be produced
outside the purview of the state (Evans 1979). Latin American citizens have responded
favorably to this resource nationalist sentiment, and hydrocarbons have therefore been
periodically prone to being nationalized as a development policy choice. Therefore,
sovereignty perceptions inherent to hydrocarbons offer a theoretical opportunity to revisit
nationalization as a defining concept of economic-sectoral policy reform in the literature.
This yields the following alternative hypothesis:

- **H-4**: When a Latin American country with a productive hydrocarbon sector is
  highly resource nationalist with a high degree of societal expectations toward
  hydrocarbon resources, we should observe decreased levels of privatization.

**Research design:**

This study deploys a comparative approach to empirical analysis, illustrated by the cases
of Argentina, Brazil and Mexico and their upstream hydrocarbon sectors. In these three
country cases, the state exerted absolute control over upstream hydrocarbon sector
development until at least the 1980s. Yet, curiously, these countries have taken three
divergent policy paths that demonstrate variation on SOC since the early 1990s. The
comparison engages in explicit qualitative and quantitative data analysis to reveal the ways in which cross-national institutional differences led to noted divergence in hydrocarbon sector development policy choices. It controls for the increasingly strong external pressures for macroeconomic, financial, and technological change that these three countries confronted simultaneously during the 1980s and 1990s. As noted, IPE scholars cite these same external pressures, i.e. globalization, as the direct causes of policy convergence.

Presidential terms are the units of analysis for the comparative case study, which covers the time period between 1988 and 2000. During this time period, in each of my country cases, presidents proposed development policy reforms to the upstream hydrocarbons sector. This temporal consistency lends theoretical weight to my case selection strategy in addition to my overall logic of comparison (Rueschemeyer 2003).

The study aims to generate comparative perspective on economic-sectoral development policymaking in all Latin American countries that produce hydrocarbons as a direct result of this case study of Argentina, Brazil, and Mexico.

To explore the impact of a number of potential explanatory factors on policy choice, I rely on the method of structured focused comparison (George and Bennett 2004). It is through the logic and practice of controlled comparison that my research is able to take rival explanations into account (Pollock 2011). Controlled comparison is well suited to my design because, apart from demonstrating variation on the dependent variable, Argentina, Brazil and Mexico display relevant variation elsewhere. In fact, these three cases display variation across my two primary independent variables of

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interest, i.e. state capacity and reform coalition configuration, which is equally important to the reliability and validity of my conceptual framework (Geddes 2003; King, Keohane, and Verba 1994; Ragin 2014). In theoretical terms, if one relies upon the conclusions of existing studies on globalization and economic reforms that highlight the growing capacity for international capital to impose constraints on domestic policy choices, then the co-variation demonstrated by my cases on the independent variables of interest suggests a curious and seemingly counterintuitive result. Such co-variation confirms my hypotheses that the sources of variation in hydrocarbon sector development policy choices in Argentina, Brazil and Mexico are political and institutional, in addition to being economic in nature. Yet, there have been few recent efforts among scholars to theorize the political-economic and institutional factors that explain cross-country hydrocarbon sector development policy choices of Latin American governments since broader market reforms were implemented in the 1990s.

The design of my comparative case study is further strengthened by the fact that it controls for four theoretically relevant and potentially confounding alternative explanations at the domestic level of analysis (Bennett 2010; Bennett and Checkel 2015; Ragin 2014). I selected Argentina, Brazil, and Mexico for comparison because they share equivalent measurements on several indicators otherwise likely to affect SOC. First, they are all large late-developing countries with medium aggregate income levels, similar linkages to global markets, and actively engaged in the production and

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36 Following Jones Luong and Weinthal (2006) my approach hypothesizes the determinants of hydrocarbon sector investment policy as domestic in nature.

37 The most recent is Philip (2007) (original work published in 1982), which is a study of nationalist movements and role of state enterprise in the oil sector throughout the twentieth century in Latin America.

38 Limited variance on a number of independent variables combined with notable variance in the dependent variable makes this study a “most similar systems design” (Przeworski and Teune 1970).
consumption of hydrocarbons. Yet, since they are all industrially diversified, their hydrocarbon sectors, while roughly equivalent to each other in terms of percentage of total exports, do not dominate the broader economy. In material terms, the three cases are examples of Latin American countries that export hydrocarbons but do not depend on that sector to sustain their broader economy. Their hydrocarbon sectors are roughly equivalent to each other in terms of percentage of total exports. Hydrocarbons comprised 9.8 percent of Argentina’s exports, 10 percent of Brazil’s exports and 13.8 percent of Mexico’s exports in 2007. Therefore, this analysis allows me to control for the potentially detrimental political, economic, institutional and security-related effects of hydrocarbon-dependent national development collectively referred to in the CPE literature as the “resource curse.”

In terms of quantity of proven hydrocarbon resources, Latin American countries identify with one of three different empirical categories: (I) net importers, for which systemic level liberal theories in IPE best explain policy; (II) hydrocarbon-dependent exporters, for which systemic level “dependency” theory in IPE and domestic level

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39 Per Karl (1997), oil exporter refers to those countries in which the high share of oil production in GDP and of oil exports in total exports places the hydrocarbon sector at the center of economic accumulation. For classifying mineral economies of this sort, the World Bank uses guiding thresholds of approximately 10 percent of GDP and 40 percent of total merchandise exports.
40 This dissertation makes an empirical contribution to the literature on the politics of economic adjustment, by zeroing in on understudied cases of development policy reform in the hydrocarbon sector in Latin American countries with diversified economies during the 1990s.
42 Beginning in the 1990s, a vast collection of scholarly work emerged that attempts to confirm an indirect relationship between natural resource endowment and GDP performance, which is the theoretical premise of the resource curse (Auty 1993; Sachs and Warner 1997, 2001). Different hypotheses have been put forth to explain the resource curse. Economists point to the macroeconomic effects that one large natural resource export sector prone to price booms can have on a country, also referred to as Dutch disease (Bresser Pereira 2010: 148-181). Other studies in political economy point to heightened levels of corruption and rent seeking generated by natural resource export revenues, or “rents.” These theories of rent seeking assume that the state holds property and ownership rights to the natural resources, and that export revenues accrue directly to the state, making them a target of distributive politics. The resource curse hypothesis is applicable national economies dependent on export revenues from one natural resource sector, such Venezuela and its dependence on oil.
theories on the “rentier state” and “resource curse” best explain policy; and (III) exporters with diversified economies including Argentina, Brazil, and Mexico; the three countries in my comparative analysis, for which there are no apparent theories in the extant literature to explain policy. Patterns of upstream hydrocarbon (petroleum) production are illustrated below in Figure 4.

Figure 4 – Petroleum Production in Argentina, Brazil and Mexico (1970-2008)

![Petroleum Production in Argentina, Brazil and Mexico (1970-2008)](chart)

Source: ECLAC Sectoral Statistics

Figure 4 illustrates important relative temporal trends among Argentina, Brazil and Mexico in terms of the productivity of their upstream petroleum sectors. While all three countries may be classified as petroleum producers, relative to Argentina and Brazil, historically, Mexico has been a much larger producer. While not insignificant, this material fact is secondary to my research, which is concerned primarily with the determinants of upstream hydrocarbon sector development policy observable in all three country cases.
Significantly, in addition to being classified together in category III (above), my primary country cases are also included in a dataset of “petroleum-rich” countries compiled by Jones-Luong and Weinthal (2010).43 In their 2010 multi-method study that deploys ownership structure as the dependent variable, Jones-Luong and Weinthal’s regression analyses reveal statistical significance on the following three independent variables that mirror my own: (1) sources of government revenue alternative to the hydrocarbon sector; (2) level of domestic political-distributional conflict; and (3) path dependency of structural and institutional factors. Jones-Luong and Weinthal empirically test their quantitative results through a small-n qualitative analysis of Soviet-successor countries also among the population in their own dataset.44 Given that my country cases are members of their dataset, and that they indicate similar variation in the quantitative element of their study, my empirical research offers a unique opportunity to qualitatively test the hypotheses of, and build upon the work of Jones-Luong and Weinthal (2010). I do so by applying much of these scholars’ theoretical framework to the Latin American country cases of Argentina, Brazil, and Mexico.

The second factor I am able to control for is that my three country cases’ historical institutional production structures in hydrocarbons are comparable.45 My three

43 The authors draw their data from the Oil and Gas Journal Database (1952-2008), and compile elements of the dataset based on resultant rankings of the top 50 countries on each of the following three criteria: (1) country’s position from averaging world rankings; (2) country’s position from averaging quantities; and (3) country’s position from weighting quantities. The weighted averages take into account the fact that different countries discovered their oil at different historical moments in time. Included in the dataset are developing countries that were within the top 50 on two of these three lists. This enabled the authors to include several countries that are not usually considered petroleum-rich because they are not oil-dependent. They used estimated rather than proven reserves so as not to include those cases in which reserves might be sizable but little exploration has been undertaken. The authors also used estimated rather than proven reserves to avoid privileging any one form of ownership structure.
45 Comparative and cross-national studies have claimed that, unlike broader manufacturing sectors, or even public utility sectors, the internationally driven structure of production in the hydrocarbons sector is its own
country cases reflect the historical institutional production structure of state-led and NOC-managed vertical integration in the decades prior to the 1990s. This type of institutional production structure employed numerous unionized workers in the exploration and production, refining and delivery stages of the industry. In addition, numerous domestic sub-contractors supply goods and services to the sector itself, and these actors, too, have interests. To some extent, similarities across institutional production structures among my three country cases allow me to control for societal actor interests and ideas in my comparative analysis.

Third, the country cases indicate similarities on several structural and historical variables including socio-economics, political regime history, and critical junctures such as economic crisis followed by a late-twentieth century shift in development strategy from ISI to neoliberalism.46 Indeed, variation in SOC exists despite the fact that the three country cases share pre- and post-1980s debt crisis development strategies in common, as well as the fact that all three have achieved middle-income country status.

Fourth, among all Latin American countries, it was Argentina, Brazil and Mexico that carried out the most extensive privatization programs and were the top three recipients of foreign direct and portfolio investment during the 1990s, which makes it all the more puzzling why they display the observed variation in degrees of privatization of their hydrocarbon sectors during the same time period.

“enclave” economy, uniquely concentrated with minimal dependence on domestic manual labor (Alt 1987; Karl 1997; Shafer 1994). The associated political logic is that an insignificant labor force in the sector implies fewer interested voters, which means that reforms to hydrocarbon sector development policy are less likely to be impacted by electoral politics and partisanship.

46 This empirical approach allows me to control for broad patterns of economic development, in contrast to a comparison that might include industrialized countries (Przeworski and Teune 1970).
Despite my research design’s ability to control for a number of potentially relevant causal factors, and my above outlined research hypotheses, the country cases do still reveal stark variation among a number of possible alternative explanations for co-variation in SOC over the observed time period. First, these cases vary according to the history of the importance of hydrocarbons on the public policy agenda. This is evident fiscally, given there is variation in the extent to which each central government is reliant upon the sector for tax revenues.\footnote{Mexico’s central government budgetary revenue from the oil sector has averaged between 30 percent and 40 percent since the late-1970s, whereas such revenues do not come close to being as significant in Argentina or Brazil over the same time period.} It is also marked institutionally in the degree of state intervention in the sector. It is equally apparent in terms of interests, as indicated by the political influence of the state itself as well as the influence of societal stakeholders, the most important being business groups and labor unions. Additionally, the realm of ideas suggests there is variation in the political importance of hydrocarbons. The cases show historical variation in the way that hydrocarbons have been associated with ideas of sovereignty, national identity, national security and the “national interest” (Krasner 1978).

The second set of alternative factors are formal institutional, and while not tested as formal hypotheses, the importance of each of these factors will be weighed in the ensuing narratives. All three countries have institutionalized presidentialist systems of government. However, the survival of single party authoritarian rule under the PRI until 2000 distinguishes the case of Mexico from Argentina and Brazil, both of which were electoral democracies since the mid-1980s. Moreover, while the institutional designs of all three country cases were federalist over the observed time period, Argentina and
Brazil carried out broader decentralization reforms during the 1990s to reflect preexisting informal power sharing institutions between the national and sub-national levels of government, while similar reforms did not take place in Mexico until after 2000.\footnote{See Aoki (2001: 165) for a discussion of federalism as a means to combat inflationary monetary policy.}

Finally, as elaborated upon in the ensuing country case analyses, decentralization in Argentina and Brazil served to fragment national political parties to varying degrees during the 1990s. Again, in contrast, hydrocarbon sector development policy reforms in Mexico were greatly influenced by persistent PRI party rule until the late-1990s.

Overall, I chose to conduct a comparative case study focusing on my three country cases because, as shown by the results, it has proven to be an effective method to uncover the determinants of regional variation in SOC. The study has responded to methodological demands made in the literature for there to be greater focus on small-n, qualitative and longitudinal case study analysis to complement prevalent but inconclusive large-n, quantitative, cross-national designs.\footnote{See Rosser (2006) for a discussion of the need for a set of historically focused, qualitative comparative studies examining the way in which differences in the political power of pro-capitalist social forces have shaped policy making in a set of “most-similar” resource-abundant countries.} My in-depth, comparative analysis has, through process tracing and other techniques, allowed me to accurately assess previously unidentified factors that condition national preferences for development of the hydrocarbon sector in Latin America (Bennett and Checkel 2015).

\textit{Methodological techniques, data collection strategy, and sources:}

To test the impact of my potential explanatory factors on policy choice, I collected and analysed data drawn from a variety of sources by way of a mixed method and concurrent
triangulation design. My convergence strategy includes statistical analysis, archival research and content analysis, as well as knowledgeable informant semi-structured interviews.

Initially, I gathered quantitative data on macroeconomic indicators and data related specifically to the hydrocarbon sector. This data was collected from the World Bank, IMF, UNDP, ECLAC and from national government agencies, and analyzed using descriptive and inferential statistics. This includes pertinent indicators of national economic performance, sectoral performance, fiscal and budgetary indicators. My interpretation of this quantitative and statistical data obtained through secondary sources contributes to hypothesis testing. The time-series quantitative data that I gathered provides an important empirical verification or check on the primary data collected from the archives and through the interview process during fieldwork.

Next, I conducted my principal case study fieldwork in Argentina, Brazil and Mexico via primary and secondary source document investigation, and primary interviews. Throughout the case analyses I reveal the results and interpretation of documents uncovered at several official archives, as well as that from a total of 45 in-depth interviews with key knowledgeable informants who I met with, several of whom opted to remain anonymous. Archival work and interviews were carried out in Buenos Aires, Brasília, Rio de Janeiro, São Paulo, and Mexico City during 2010 and 2011.

The dissertation argues that critical junctures, historical institutional legacies, and path dependence explain a significant degree of variation in contemporary economic-sectoral policy choices. Therefore, considerable reliance is placed on primary and secondary documents gathered on-site at various archives. The central advantage of
historical data acquired from the archives is the documentary evidence it contributes through process tracing to the construction of each of my individual country case studies. The archival research element of my data collection turned out to be an especially fruitful and enriching experience. The archivists I met with in all three countries proved themselves to be quite knowledgeable about my research topic, and they were equally generous with their time and with their resourcefulness.

I conducted archival research and content analysis on primary government documents, particularly those that explain relationships between the state and the private sector, both foreign and domestic. This involved analysis of the constitution, laws and regulations governing the sector, formal records of political debates in the legislature, and contracts with private investors. These documents provide insight into relationships between the state and private actors. Contextual and interpretive content analysis of these documents was performed to establish how government and business officials view hydrocarbon sector policy. Also in the archives, I was able to gather together evidence of the broader national debate on hydrocarbon policy over time through my examination of secondary print journalism sources. To confirm or disconfirm this archival data and my interpretation of it, I applied it to the interview process.

The interview process involved a series of semi-structured interviews conducted with a variety of knowledgeable informants. These informants ranged from academics to bureaucrats to policymakers to business professionals to street demonstrators, from whom I sought to ascertain personal policy preferences during and since the 1990s. Criteria for selection of my initial set of scheduled interviewees was based on their direct connection to the policy making process. The “snowball technique” – confirmation of
new interview candidates via interviewee recommendations – enabled me to expand the
text of respondents. The interview questionnaires were kept standard among my three
country cases for cross-case comparability purposes. The questionnaires included a set of
open- and closed-ended questions. Oftentimes the views of respondents countered some
of the basic assumptions embedded in the project’s research question. Nevertheless, the
interview data presents an opportunity for this research project to reconcile competing
arguments regarding hydrocarbon sector development policy choices in Latin America.
The transcriptions constitute the data analyzed through interpretive content analysis
(Marsh and Stoker 2010). To corroborate my interview evidence, I again applied my
convergence strategy and compared it to my archival and statistical data during the
interpretation phase of the research process.

The aim of my broad methodological and data collection approach is to confirm
and/or disprove existing theory in new empirical cases. It also aims to potentially
develop new theory that explains national level natural resource sector development
policy among Latin American country cases. Even with my carefully thought out
research design and strategy, the methods deployed during my fieldwork are not beyond
limitations nor are they beyond criticism. The design failed to random sample
interviewees and therefore the interview results may be cast as biased. However,
interviewee selection was constrained by access, budgets, and time. Therefore, selection
was reliant upon the scheduling of trips to Latin America, previously arranged contacts,
response rate, and other basic practical issues. Moreover, I recognize that with the
snowball technique there is an inherent risk that new contacts gained via pre-existing
respondents will introduce a network bias gained through contact with a concentration of
like-minded informants in the field. Moreover, while the interview questions encouraged respondents to draw upon history, it is acknowledged that any data gleaned is to some extent a constrained “snapshot” of observable patterns in policy reform. In order to qualify this potential bias, consideration was given to other observable characteristics such as political affiliations, research agendas, and employment, in an effort to allow for varied responses (King Keohane and Verba 1994). Finally, it is also understood that secondary quantitative and statistical data acquired via independent sources has its own potential biases built into it. Sometimes, a gap exists between the primary data collected in the field and that compiled by other individuals with their own unique perspectives and motivations for doing the research. In spite of this limitation, the data is deemed sufficiently reliable and is one of the best sources to expand our understanding of variation in policy reform in Latin America.
Ch. 4 - Argentina and YPF

“L’État, c’est moi.” –King Louis XIV, 1655

“El ejecutor de una empresa atroz debe imaginar que ya la ha cumplido, debe imponerse un porvenir que
sea irrevocable como el pasado.” –Jorge Luis Borges, 1941

Chapter overview:

In this chapter, I explain how Argentina’s overexposure to external financing led to
copolymaking constraints. The chapter illustrates how, under conditions of debt crisis,
the hydrocarbon sector development policy of a government with narrow state capacity
can become radically altered. In this country case chapter my empirical analysis
demonstrates the conditions that yield the policy choice of privatization as one
categorical outcome on my dependent variable proxy, SOC. As proposed in Figure 2, it
is hypothesized that in a country case where state capacity is narrow, and where the
president organizes a decisive pro-market reform coalition, privatization is likely to be
chosen as a policy for the hydrocarbon sector. Privatization falls into the upper right
quadrant of Figure 2. Here, I test this hypothesis and competing hypotheses on
Argentina’s upstream hydrocarbon sector during the 1990s.

_Yacimientos Petrolíferos Fiscales_ (YPF) became the world’s first NOC when it
was established by the Radical (UCR) party government of Hipólito Yrigoyen in 1922.
But at inception YPF was not a pioneering actor in the Argentine petroleum sector in
1922. Rather, YPF joined several other preexisting domestic and foreign actors already
operating through provincial government contracts. At the time, the provinces had
jurisdiction over their own hydrocarbon resources, which relegated the newly formed
YPF to federal territories. YPF therefore became one of many actors in a national
hydrocarbon industry that already involved a diversity of competing interests. Over time, domestic and foreign business actors with ties to the sector secured privileged contracts as suppliers to or as clients of YPF. These business actors were protected by subsidies and tariffs that shielded them from external competition and this pattern drew in other societal actors, labor in particular. This pattern of competing private and public actor interests in hydrocarbons, and the complex political-economic and policy implications are stark features of the Argentine country case in comparison to Brazil and Mexico.

Over the course of the 1990s, the Argentine hydrocarbon sector was liberalized and YPF was privatized through a distinct set of staged reforms. At the first stage, to make it more competitive and increase its value, YPF was converted into a publicly traded corporation in 1991. At the second stage, in 1993, YPF was partially privatized, with 50 percent of its stock sold to private investors. At the third stage, in 1999, Repsol secured a controlling interest in YPF through the purchase of outstanding and government-owned shares. Repsol’s purchase transformed YPF into Repsol-YPF, a fully privatized, still vertically integrated company that, for lack of an updated regulatory framework, gained private monopoly control over the upstream and downstream hydrocarbon markets in Argentina.

This chapter’s qualitative comparative analysis finds that, in the case of Argentina, complete privatization of YPF was carried out during the 1990s for three primary reasons. First, there was the extremely urgent need to raise revenues to restore macroeconomic stability. Second, there was general societal pessimism that YPF had become an unproductive and wasteful NOC, and a reflection of structural and institutional legacies of narrow state capacity. My analysis finds that the twentieth
century evolution of YPF defies developmentalist and economic nationalist theoretical claims about state enterprise. Such claims predict that governments most effectively direct their economies and societies to the “commanding heights” of development by way of autarky, targeted investment, bureaucratic efficiency, and autonomy from the influence of societal actors. Argentina’s deviation from a paradigmatic economic nationalist state enterprise model in the case of hydrocarbons is here explained as a consequence of the narrow capacity of the federal state, itself. Third, and finally, interest-based rationality found in a pro-market reform coalition comprised of a variety of actors who supported Menem’s preference to turn Argentina’s hydrocarbon industry over to the market also explains the policy choice of privatization. Widespread evidence of YPF’s inefficiency and poor performance served to bolster Menem’s argument for deregulation and privatization as part of a broader neoliberal reform strategy. Once the Menem government introduced privatization of YPF to the agenda, its political capability to successfully organize a reform coalition carried the process forward to approval and implementation.

The remainder of the chapter is structured as follows. First, I provide a brief overview of material facts about the export profile of Argentina, and its hydrocarbon sector. Second, I trace the process of SOC variation over time to demonstrate patterns of frequent institutional change so outwardly apparent in the hydrocarbon sector in Argentina. This includes a succinct description of the legal and organizational structure of the national hydrocarbon industry and that of YPF. This historical institutionalist narrative is organized inter-temporally by the antecedent, the permissive, and the productive condition categories of my critical juncture framework. At the heart of this
process tracing analysis is the data I put forth to test my hypotheses of economic crisis, state capacity, and reform coalition configuration. Third, and finally, I consider a number of alternative explanations, and I summarize my findings. Through hypothesis testing, the chapter confirms that the determinants of complete privatization are both domestic and external in nature. Overall, the effort exhibited by this case analysis demonstrates that, more so than has been previously acknowledged by political scientists who have researched Argentina, the structure of Argentine politics and economics is a reflection of the country’s century-long history and pattern of hydrocarbon development.

**Material facts:**

Historically, Argentina has been self-sufficient in the production of hydrocarbons including both gas and petroleum. Relatively low levels of exploration and production in recent decades in combination with natural declines in reserves in maturing fields explains the gradual tapering off in proven reserves from its peak in 1998, as shown in Figure 5. Argentina’s domestic production trend is therefore stable (neither on the decline nor the incline) over the time period under analysis in this dissertation, which translates to a medium-term production time horizon.
The historical contribution of oil exports and imports to Argentina’s economy is illustrated below in Figure 6, as is the growing increase in oil exports that took place over the decade of the 1990s as a result of liberalization reforms to the hydrocarbon sector.

Figure 5 – Proven Oil Reserves in Argentina (1980-2013)

Figure 6 – Annual Comparison of oil exports and imports in Argentina (1980-2012)
Antecedent Conditions (1950s-1960s):

(1) Form of state-society relations

Argentina experienced a unique form of twentieth century late-industrialization compared to neighboring countries in Latin America. Despite the constant presence of nationalist themes in twentieth century Argentine politics, the state consistently played a secondary role to private enterprise. Argentina’s mode of late-industrialization and its first phase of ISI were business-groups-led. Foreign capital was instrumental to the rise of a private business class. The business class was of an intermediate strength relative to the state, and in fact the business class balanced the state (Brennan and Rougier 2009: 111). As it industrialized, Argentina therefore saw the gradual rise to power of domestic business actors that played a pivotal role in industries such as hydrocarbons in a broader model of accumulation referred to as “assisted” or “coordinated” capitalism (Martin and Swank: 28-49).

Given the intermediate strength of the business class, the Argentine state’s type of labor incorporation was neither highly statist (as in Brazil) nor highly politicized (as in Mexico). Rather, Argentina’s type of labor incorporation was a unique form of labor-based populism. Electoral mobilization and the linkage of unions accompanied Peronist (PJ) party labor incorporation during the 1940s. Etchemendy (2011) classifies this particular type of state-society relations as “corporatist,” which produced a unique set of

50 Per Levitsky (2001), unlike many other mass working-class parties, the PJ is thoroughly non-bureaucratic. Its mass linkages are almost entirely informal, and its internal rules and procedures are strikingly fluid. The roots of this fluidity lie in the PJ’s populist origins. The original Peronist party was largely a personalistic vehicle for Juan Perón. Repeatedly reorganized from above during the first Perón government (1946-1955), the party never developed a stable internal structure. After Perón’s death and during the 1976-83 dictatorship, the movement again fell into an anarchic state in which no faction was able to impose a binding set of rules. The PJ thus emerged from military rule in a state of extreme fluidity in 1983.
critical antecedents that would condition market reforms during the 1980s and 1990s. One of these critical antecedents was a financially powerful monopoly union movement with thoroughly centralized leadership and a relatively weak rank-and-file. Also, Argentine populism inhibited state penetration and expansion into basic industries. As industrialization took off, the state supported local private production more than it did SOEs. State participation in the economy was limited to steel and to the YPF state monopoly. But even with the presence of an NOC in the hydrocarbon sector, the power of domestic business actors and IOCs relative to the state was far greater in Argentina than it was in Brazil or Mexico.

Argentina experienced its initial export boom during the first period of globalization (1870-1914). Between 1880 and 1910, Argentina’s growth rate averaged 5 percent, which ranked it among the world’s top ten wealthiest countries in 1913. The majority of this growth came from the export of agricultural and livestock products grown on the pampas, one of the largest and most fertile agricultural areas on earth. Through expansion of its agricultural frontier Argentina increased participation in world exports of beef, corn, wheat, leather, and textiles. Based on these four categories alone, Argentina achieved 36 percent of world exports by the 1930s. Going forward, Argentina has continued to be a major exporter of agricultural commodities. Once export-led growth had taken off, a process of urbanization unfolded that was accompanied by commercial and consumer demand for hydrocarbons and their derivatives. Under this scenario, the state’s role in the economy became more significant.

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51 Comparativists have tended to define the concept of corporatism based on two dimensions: (1) the structure of interest intermediation; and (2) the extent of involvement by societal actors in the policy making process. Access to the policymaking process is vertically structured with a well-defined representation of interests in a corporatist model. Moreover, corporatism is typically associated a higher degree of private actor participation in the policymaking process in contrast to a more statist or pluralist model (Collier 1982; Lehbruch and Schmitter 1982).
52 Author interview with Leonardo Stanley, Professor, Centro de Estudios de Estado y Sociedad (CEDES): Buenos Aires, November 2011.
pattern of development, Argentina’s national politics came to be defined by a persistent rural-urban cleavage that engendered competition for subsidies and for the distribution of commodity export rents (Auty 2001: 214; Bates 1988; Maloney 2007; Mazzuca 2013: 119).

Enacted by Congress in 1886, El Codigo Mineria first established all minerals as property of the provincial governments in Argentina (USGS 2009). Hydrocarbons were first discovered by accident in Comodoro Rivadavia in the region of Patagonia in 1907. Following the initial discovery of petroleum by locals drilling for water, Comodoro Rivadavia came under halted development. By 1916, domestic capitalists were calling for legislation aimed at a concession policy that would promote broader participation in development of the Comodoro Rivadavia fields. These domestic investors joined a contingent of Radical party deputies “who were anxious both to increase the nation’s fuel supply and to partake in the profits of production” (Solberg 1979: 45). This early legislative debate was only a glimpse of what soon became a perpetual struggle between the federal and provincial governments over interests in hydrocarbon sector development in Argentina. This debate concerned property rights to hydrocarbon resources, distribution rights to production rents, and IOC involvement in development.

By 1920, the political debate over hydrocarbons developed into a conflict between the urban consuming regions and the oil-rich interior provinces. President Yrigoyen (Radical party) attempted to work around this conflict by promoting a return to a pre-WWI economy based on agrarian export promotion that would subsidize a growing urban population. Yrigoyen’s strategy relied on the assumption that petroleum imports would

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53 Author interview with Nicolás Gadano, Economista en el Banco de la Ciudad de Buenos Aires y Profesor en la Escuela de Gobierno, Universidad Torcuato di Tella: Buenos Aires, November 2011.
adequately provision the demands of a rising urban population, and that they would remain affordable. Therefore, development of industry, including the federal government-controlled oil fields, was not prioritized on the policy agenda. In retrospect, Argentina’s era of agrarian-export-led growth was already coming to an end when Yrigoyen steered the economy back in that direction.

As the 1920s unfolded, institutional issues of federalism assumed paramount importance in the national debate over hydrocarbon sector development. Provincial governments had grown accustomed to granting IOCs concession contracts with subsoil property rights under the terms of the Mining Code of 1886. This pattern of activity was met with rising interference and intervention by the federal government, which sought to extend its own oil development operations into the hydrocarbon-rich provinces. The oil-producing provinces, together with the IOCs, blocked attempts by the federal government to begin operations in the interior and stood in firm opposition to nationalization of subsoil rights to hydrocarbon resources (Solberg 1979). In summary, in the 1920s, the federal government entered into a tense struggle with the subnational governments of the hydrocarbon-rich provinces that would persist into contemporary times.54

(2) Founding mission of the NOC

By 1922, perceived federal government inaction toward domestic oil production, growing reliance on oil imports, and a continued presence of IOCs, altogether, drew a range of criticism from the electorate. In response, Yrigoyen decreed a reorganization of the national oil industry in June 1922. In turn, YPF was created to operate the federal government’s oil industry under the authority of the Ministry of Agriculture. For

54 Author interview with Nicolás Gadano: Buenos Aires, November 2011.
Yrigoyen’s branch of the Radical party, the formation of YPF was intended to be a final victory of nationalist interests over provincial interests in hydrocarbons. With this measure, Argentina became the first country in Latin America to establish an NOC (Philip 2007). However, notably, no dedicated bureaucratic agency was created at the time to administer the government’s new hydrocarbon sector development policy.

The politics of hydrocarbon sector development policy in 1920s Argentina illustrates the actions taken by a political party to gain and consolidate political power by way of a controversial economic issue prone to nationalist sentiment. By 1928, Yrigoyen capitalized on the Radical party’s ongoing battle with the northwestern oil-producing provinces and the IOCs to secure a nonconsecutive second term as president. Once back in office, Yrigoyen pursued an ambitious plan to nationalize the petroleum industry, and to grant YPF monopoly control of the domestic market. Yrigoyen set out to generate support from his party by promoting the statist version of petroleum nationalism among the urban oil-consuming middle classes, which by that time comprised at least a third of the country’s population. In this case, economic nationalism was used as a political means to redistribute wealth through the creation of new jobs in the oil sector for the middle class (Bates 1988). Strong support from Argentina’s student population for Yrigoyen’s statist petroleum plan exemplifies the appeal of petroleum nationalism among the middle classes (Solberg 1979).

However, Yrigoyen’s 1928 effort to achieve a state monopoly for hydrocarbon sector development was a failure. In a case of prioritization of petroleum politics over petroleum policy, Yrigoyen ignored alternative proposals for a flexibilized SOC model
for YPF. This political choice had serious consequences; ensuing economic instability actually contributed to the overthrow of democracy and served to usher in a period of military dictatorial rule. Subsequently, Argentina became increasingly unstable from 1930 onwards when economic uncertainty extended to national politics. Starting with the 1930 coup, constitutions were overthrown and an alternating cycle of civilian and military governments began, which greatly overshadowed political institutions and the democratic process going forward.

*Institutions of federalism and taxation:*

The trajectory of hydrocarbon sector development policy in Argentina must be understood within the broader institutional contexts of federalism and taxation. Argentina was founded as a federal republic, and for that reason numerous federalist mechanisms constrain the central government and empower provincial governments (Sánchez Román 2012). However, under federalism, Argentina’s political history is characterized by instability and polarization. Argentina’s variety of federalism discourages actors from pursuing long-term incentives, and therefore induces political instability (Levitsky and Murillo 2005). In historical terms, since the end of its

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55 General Enrique Mosconi, head of YPF at the time, embraced a flexibilized SOC within the context of a state monopoly, limited to the participation of domestic private capital (Solberg 1979: 101-102). Mosconi’s stance represented a practical alternative to the deadlock surrounding oil politics. It would have combined the basic goals of national ownership, maximum efficiency, and rapid growth. Mosconi and Alejandro Bunge, the two most influential spokesmen for Argentine industrialization and economic independence, proposed to integrate the national capitalist class into the state oil industry and thereby strengthen the future of YPF by expanding its capital base. But Yrigoyen ignored Mosconi’s proposals for a flexibilized SOC and instead pushed ahead in pursuit of congressional approval of the total state monopoly.

56 Author interview with Gerardo Rabí inovich, Vice Presidente del Instituto Argentino de la Energía General Mosconi: Buenos Aires, November 2011.

nineteenth century economic expansion in 1914, the Great Depression, and the military coup of 1930, Argentina has experienced an extended period of continuous institutional change (López-Alves 2001). A long sequence of coups and abbreviated governments highlights the great political instability and uncertainty apparent throughout the twentieth century in Argentina. Chronic regime instability inhibited the emergence of modern bureaucratic mechanisms. For example, since the 1930s, political instability has played a crucial role in hindering the establishment of state bureaucracies capable of upholding taxation (Sánchez Román 2012). Throughout the twentieth century, Argentine governments did not effectively extract taxes from society. And yet, a distinctive pattern in the Argentine case is the absence of both reform initiatives and tax revolts over the course of the twentieth century (Melo 2010). Given the absence of these factors, narrow extractive capacity must therefore be traced to Argentina’s political institutions, most especially federalism (Samuels 2003).

As stated above, Argentina has its own unique variety of federalism compared to Brazil and Mexico. In Argentina, governors control their provincial legislative assemblies, and by association, governors have had direct influence on the policy agendas of presidents. In addition, the influence of governors over provincial assemblies also determined their choice of federal senators. Through their control of the federal senate, provincial interests were able to secure numerous subsidies and tax exemptions that served the interests of their constituencies. In addition to its spending effects, federalism

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58 Melo (2010) notes that military dictatorships ruled the country in the periods 1930-32, 1943-46, 1955-58, 1962-63, 1966-73, and 1976-83. During the years of Arturo Frondizi alone (1958-62), there were 35 failed attempts to topple the government. Between 1955 and 1983, sixteen different presidents ruled Argentina. This is an average of less than two years for each term in office. Volatility was also prevalent at the subnational level. Seventy-four different governors between 1900 and 1984 governed the Province of Buenos Aires. The average tenure in office was thirteen months.

59 The 1994 constitutional reforms provided for the direct election of federal senators.
has inhibited revenue collection. Given this political setting, Argentine federalism has generated regular institutional crises known as the *federal intervenciones*. In summary, the federalist system rests on an unstable equilibrium between among Argentina’s competing political institutions (Jones 2001). This equilibrium has periodically been interrupted by: (1) disincentives toward provincial level taxation; (2) provincial government tendencies to grant tax exemptions; and (3) regular fiscal bailouts of the provinces by the federal government.

The construction of Argentina’s modern tax agency began with the Dirección General Impositiva (DGI) in the 1930s (Sánchez Román 2012). But political instability prevented the DGI from developing sufficient bureaucratic integrity; rather it fell into steady decay beginning in the late-1950s (Melo 2010). More significantly, the *Ley de Coparticipación* (1935) centralized taxation authority as it freed the provinces from the duty of taxation. Under *Coparticipación*, the provinces surrendered their taxing authority to the federal government in exchange for a percentage of pooled resources generated at the federal level. *Coparticipación* also proved to be a highly unstable and yet an enduring institutional mechanism. Its rules were revised constantly in the decades after its establishment. However, the mechanism persisted and became more conflictual once the VAT was instituted in 1975. Over time, the Argentine state focused its tax efforts increasingly on those least burdensome for the state bureaucracy (Sánchez Román 2012).

By the 1980s, Argentina had abandoned the income tax altogether. It chose instead to rely on easier to collect taxes such as VAT, export taxes, debit and credit taxes on bank accounts, and inflationary policy. Noted political instability and the challenges it

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60 Between 1853 and 1995, the federal government intervened in the provinces 131 times with the majority of such interventions carried out by federal decree (Faletti 2010a).
posed to federalism prompted the Argentine state to resort repeatedly to taxes on foreign trade and on monetary policy to finance the increasing demand for public goods (Melo 2010). Beginning in the 1940s and up until the debt crisis of 1982, inflationary monetary policy was another primary means to secure fiscal revenues. The inflation tax was an important source of deficit financing in post-WWII Argentina, but one that contributed to mounting fiscal indebtedness and broader economic instability.

The formal institutions of federalism have also shaped hydrocarbon sector development policy in Argentina, in particular since the establishment of YPF in 1922. The 1866 Mining Law’s guarantee of provincial government ownership and control over hydrocarbon resources set up a continuous political struggle with the federal government. Competing federal, provincial, and foreign interests overshadowed the national goal of self-sufficiency in hydrocarbon production set out for YPF. Different federal administrations sought to politicize oil to strengthen their positions vis-à-vis the provinces and IOCs. The goal of some federal administrations was to expropriate, nationalize, and thereby turn YPF into an attractive source of government patronage, as has been the case with Pemex in Mexico. My research shows that from the provinces’ perspective, federalism was the determinant of oil policy, while from the federal government’s perspective, fiscal necessity dictated oil policy. These competing interests brought about a perpetual struggle over what the scope of private versus state actor participation in the industry ought to be, and what it would prove to be. As a result of

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61 Numerous works by comparativists on taxation have shown that systemic political instability affects the tax behavior of governments. Facing a highly uncertain future, incumbent governments choose to extract resources from society through inflation (implicit taxation) rather than explicit taxation (Aoki 2001: 165). In addition, systemic political instability further affects the types of explicit taxation that are imposed. Governments in these cases tend to collect taxes that require less effort on the part of the state, such as customs taxes, and banking transaction taxes. This is opposed to explicit taxes such as those on incomes, property, and to some extent, VATs.

62 Author interview with Gerardo Rabinovich: Buenos Aires, November 2011.
these competing preferences, YPF was, and remained, institutionally weak. In fact, YPF became so politicized that it proved unable to achieve operational autonomy from the Argentine state for any sustained period of time between 1922 and 1990.

(3) Form of ISI

In the mid-twentieth century, against the backdrop of ISI, the manufacturing sector gained greater prominence in Argentina’s agrarian export economy. These changes in the structure of production resulted in a reorientation of domestic politics (Bates 1988). YPF was greatly impacted by the ISI measures of the 1930s. As pointed out above, by the mid-1930s, YPF’s operational achievements generated competition between the federal and provincial governments and private actors in the petroleum industry. As the state asserted its presence via YPF, private actor participation in Argentina’s upstream petroleum sector was reduced to 50 percent between 1920 and the early-1940s (Gadano and Sturzenegger 1998). Moreover, by the end of the 1930s, under conditions of increasing domestic consumption of oil derivatives, economic strain, and a rising tide of nationalist societal expectations, the federal government discontinued issuance of new private concessions. Furthermore, a consumer market for oil derivatives regulated by price controls was established (Maloney 2007).

Economic nationalism gained greater prominence in national politics with the rise of Juan Perón to power in 1946. Perón’s presidency coincided with an era of great sociopolitical conflict. Perón’s legacy is found in the permanent impression of sociopolitical struggle that makes up Argentina’s national identity (Adelman 1999: 292-293). Perón was president between 1946 and 1955. During this period, state intervention

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63 Author interview with Nicolás Gadano: Buenos Aires, November 2011.
was in ascendance and foreign investments were nationalized. Unlike the more state-led (and less redistributive) development models found in Brazil and Mexico, between 1946 and 1955, Peronist populism focused on the more labor-inclusive ISI industries such as food and textile production (Cohen 2011: 9-10; Sikkink 1991). Massive expansion of the state into basic industries was not undertaken. In turn, Perón permitted unionization for the first time since 1932. Perón oversaw the rise of the Federacion de Sindicatos Unidos Petroleros del Estado (SUPE), a nationwide, government-backed oil workers’ union. SUPE lent its support to petroleum nationalism in exchange for increased wages and improved living conditions. It was at this moment when SUPE embraced the cause of YPF. In a broader context, labor unions became the major nationwide power base of the first Perón regime (1946-1955).

Under Perón, not only did YPF become a monopoly company in the national hydrocarbons market, it also became an instrument of broader hydrocarbon sector development policy. Moreover, as the first NOC in the world, YPF became a symbol of Argentine nationalism, and a policy instrument for redistribution. Through the YPF state monopoly it became commonplace for federal government leadership to place strict regulations on every corner of the petroleum market in the form of price controls and subsidies at the production, distribution, and commercialization stages (Sturznegger 1991). Under Perón, YPF attained a privileged and monopolistic status in the Argentine petroleum market. However, this distinction turned out to be “a weak monopoly, incapable of resisting the pressure of private producers, the union, and the government itself” (Etchemendy 2001: 12). In this highly regulated public monopoly, YPF was made the sole importer and exporter of petroleum, and private producers were prohibited from
freely disposing of their petroleum. Constrained by these politically motivated regulations, YPF experienced chronic administrative, financial, and technical deficiencies. These operational weaknesses greatly impacted YPF’s ability to achieve and sustain self-sufficiency in hydrocarbon production on behalf of the nation (Sturznegger 1991).  

The second phase of ISI was carried out in Argentina between 1956 and 1974. Where state direction of investment is concerned, an important transition took place during phase two of ISI in Argentina. Prior to the late-1950s, the main beneficiaries of state support had been firms of national capital. In its second phase, ISI involved the development of new sectors of capital and intermediate goods aimed at integrating production and reducing external imbalances (Maloney 2007). In the late-1950s, and until the end of the 1960s, the state’s focus turned toward attracting foreign capital. This was part of a broader program whereby externally driven development programs were imposed upon Latin America as part of a strategy to expand multinational enterprise. As a result, Argentine capitalism went from having a strong domestic component, to having a new second cycle featuring a predominance of multinationals (mainly from the US), who increased their participation in industrial production from less than 20 percent in 1955 to nearly 33 percent in the early-1970s (Barbero and Lluch 2014). Only later, between the late-1960s and mid-1970s, did national companies once again become the focus of national development policy.

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64 Author interview with Gerardo Rabinovich: Buenos Aires, November 2011.
Bureaucratic authoritarianism as a mechanism of reproduction:

Growing political instability complicated economic policy during phase two of ISI. This broader effect similarly impacted the hydrocarbon sector in Argentina. In 1958, in what had by then become a well-established pattern whereby macroeconomic necessity dictated oil development policy, a balance of payments crisis prompted the Frondizi government to implement Law 14.774, which nationalized hydrocarbon reserves (James 1988: 107-108). Once the federal government had taken over subsoil property rights to hydrocarbons, Frondizi allowed foreign participation in the upstream petroleum sector.65 Remarkably, the steps taken by the short-lived Frondizi government to spur foreign investment in oil development proved effective. Petroleum production tripled and self-sufficiency in hydrocarbons was nearly reached. From 1958 to 1962, Frondizi’s developmentalist policies attracted FDI. Nevertheless, in 1963, the civilian government was ousted, in a statist military coup, and IOC contracts were canceled (Brennan and Rougier 2009: 12). Three years later, in 1966, yet another coup brought General Ongania to power, which again brought about an IOC-friendly stance toward hydrocarbon development. In 1967, Congress passed Law 17.319 that reinstated hydrocarbon subsoil rights at the provincial level, and that allowed private sector participation in the form of concessions. However, in what had by then become commonplace, the government was again overthrown in 1970, which impeded the implementation of a coherent hydrocarbon policy that included the IOCs. As a result of this pattern of institutional instability, economic output stagnated.66 In 1970, beef, corn, and leather, together comprised half of

65 In 1958, Congress ratified Law 14.773, which nationalized hydrocarbon reserves.
66 Author interview with Nicolás Gadano: Buenos Aires, November 2011.
Argentina’s total exports, and by then, total exports had gone into decline under Argentina’s form of ISI (Thorp 1998).

The pattern of sociopolitical instability outlined above had lasting effects on national industries. In the 1960s, domestic actor divestiture to foreign capital accelerated, prompted by such conditions as devaluation of the local currency, a decline in internal demand, and domestic credit shortages (Barbero and Lluch 2014). By the 1970s, many domestic businesses had disappeared. The most noticeable shift was the significant advance of foreign enterprise into sectors that required higher degrees of capital and technology, including hydrocarbons (Brennan and Rougier 2009: 15-16). Under the military dictatorship of 1976, there was again a boost in IOC participation in domestic petroleum production in the form of risk contracts. Despite further opening to foreign investment at the upstream level, stringent regulations upholding a state monopoly at the downstream level caused YPF to suffer significant losses. This is because the federal government continued to impose price controls on fuel. Devolved by then into a hollowed out policy instrument used to prop up the dictatorship, YPF was likewise forced to purchase crude oil from other domestic producers at a higher price than it earned from the sale of its own petroleum products.67 These subsidies proved to be a major drain on YPF’s finances, which, as a consequence, limited the NOC’s operational and technological capacities.

67 By the 1970s, YPF had become a source of job creation. YPF’s stock of employees rose to well above the required capacity in order to alleviate high levels of chronic unemployment in the labor market. Some of those same leaders influenced YPF to construct refineries and facilities in unsuitable locations merely for political reasons. Furthermore, federal government leadership pushed YPF management to seek foreign sources of financing to fund operations, which inevitably led to debt overhang. After several decades of such mismanagement and politicization, YPF had accumulated a US$6 billion debt during the 1980s (The Economist July 2, 1994:63).
In the 1970s a crisis of Keynesianism manifested in industrialized countries, which paved the way for neoliberalism to arise as an influential reformist ideology and development strategy. The dictatorship made adjustments to Argentina’s economy in response to transformations occurring in the global economy during the 1970s. The mid-1970s signaled a new period of institutional transformation that involved deregulation and liberalization of the Argentine economy. This moment marked the end of assisted capitalism that had been in place since the early-1940s, and the pursuit of new economic ideologies and policies already prevalent in the developed world. The liberalization process unfolded in three stages. The first phase of liberalization lasted from 1976 to 1981. Between 1976 and 1981, the bureaucratic authoritarian regime attempted to open the market to foreign exchange through a program of financial and trade liberalization while it concurrently maintained some aspects of ISI. A second phase of reversal followed in the 1980s. The third stage was one of expanded liberalization carried out in the 1990s.

Domestic industrial groups that survived patterns of national economic instability benefited from the dictatorship’s more market-friendly policies during the late-1970s. The policies of tariff and financial liberalization advanced by the dictatorship provoked the decline of FDI inflows to the industrial sector and underpinned the expansion of domestic capital (Barbero and Lluch 2014). By the 1980s, select local business groups had become hegemonic players in many industries (Castellani 2012). Castellani’s (2012) study illustrates how Argentine domestic conglomerates continued to displace both state and foreign capital during the post-debt crisis 1980s. In the hydrocarbon sector, this

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68 Author interview with Daniel Heymann, Coordinador, Area de Análisis Macroeconómico, Comisión Económica para Latina y el Caribe (CEPAL): Buenos Aires, November 2011
included Astra, Bridas, and Perez Companc. These were among the largest domestic actors that also turned out to be economically and politically powerful actors with the greatest leverage during the negotiation of ensuing neoliberal reforms.69

*Permissive (exogenous) conditions (early-1980s):*

Macroeconomic conditions became increasingly unfavorable from 1981 onwards in Argentina after the rise in international interest rates and the subsequent onset of Latin America’s regional debt crisis. At the same time, mounting debt, fiscal deficit, and inflation that was by then averaging 100 percent annually, hindered efforts at neoliberal reforms. Argentina was highly vulnerable to the effects of the Latin American debt crisis of 1982. After heterodox efforts at stabilization, record hyperinflation became an untamable beast throughout the 1980s. A large portion of private debt was nationalized, seriously compromising the public accounts. The democratic government of Raúl Alfonsin (UCR) that came to power in 1983 inherited major external and fiscal imbalances from the disgraced dictatorship. Under the weight of these constraints, measures adopted during the 1980s focused on the short-term administration of a highly volatile and conflictive economy. A variety of different attempts were made to bring about macroeconomic stability, but all proved ineffective due to the persistent nature of the fiscal imbalance and mounting external debt. In summary, the rise in international interest rates and the resultant debt crisis and hyperinflation mark the first and second permissive conditions in my critical junctures framework.

69 Author interview with Diego Finchelstein, Professor, Universidad de San Andrés: Buenos Aires, November 2011.
In 1982, YPF’s finances were a reflection of Argentina’s dire macroeconomic situation. YPF’s external debt rose from US$640 million to US$4.6 billion over the period from 1976 to 1982 (Gadano 1998). In 1985, the Alfonsin government attempted to renegotiate private participation in Argentina’s oil sector through the offering of PSAs (Plan Houston). Despite Alfonsin’s efforts to open up and revive upstream activity in the hydrocarbon sector, the bidding rounds for exploration licenses were not a success. Only 50 percent of the areas tendered were awarded and only two out of 77 sites actually became operational, due to restrictions and regulations in the domestic energy market (Gadano 1998). The timing of the Plan Houston was unfortunate, as it coincided with the plummet in international oil prices in 1985-1986; a factor that contributed to the disappointing level of interest demonstrated by IOCs. This series of events involving the dive in international oil prices marks the third permissive condition in my critical juncture framework.

Apart from YPF, not all actors with ties to Argentina’s hydrocarbon sector suffered as a result of the 1980s economic crisis. Certain domestic actors in the hydrocarbon sector benefited from the government’s response to crisis. As indicated above, between 1980 and 1990, domestic private businesses strengthened their position in comparison to foreign capital and the state. Among the largest businesses in the hydrocarbon sector during the 1980s was a private company named Eg3, which formed as a result of merger between Astra and CGC (Barbero and Lluch 2014). Perez Companc also remained a major actor in the industry. A feature of this reform phase was the

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70 Author interview with Guisela Masarik, Gerencia de Relaciones Institucionales, Instituto Argentino del Petróleo y del Gas: Buenos Aires, November 2011.
71 Author interview with Daniel Heymann: Buenos Aires, November 2011.
72 Author interview with Diego Finchelstein: Buenos Aires, November 2011.
strengthening of domestic businesses, where the presence of new firms became noticeable, alongside already existing domestic firms. By 1990 there was evidence of a high level of continuity, with the powerful expansion of Perez Companc, which had secured direct outside investments during the 1980s. Thus, the decade of the 1980s was a period of consolidation for some of the largest and most diverse business groups that still continued to benefit from state-led incentive schemes for investment, production, and export. As pointed out above, this process of consolidation unfolded against a backdrop of withdrawal by many IOCs.

*Productive Conditions and Outcome (1980s)*:

The democratically elected Alfonsín government (1983-89) was inaugurated in the middle of economic and social crisis. In macroeconomic terms, the 1980s was a decade of inflation, recession, and financial instability in Argentina. His efforts aside, Alfonsín proved to be no more successful at solving Argentina’s economic problems than had been the military dictators. Dramatic fiscal crises occurred at the provincial level, which prompted the government to nationalize the provincial pension systems (Brooks 2009). Going forward, the federal government retained 15 percent of *Coparticipación* revenues in exchange for stringent concessions in the form of fixed transfers. Federal tax revenues had descended to a record low in 1989 (Sánchez Román 2012).

By 1989, Argentina’s external debt burden was nearly equivalent to its annual GNP. “Between August 1988 and July 1989, the inflation rate recorded 3,610 percent for

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73 Author interview with Diego Finchelstein: Buenos Aires, November 2011.
74 Author interview with Leonardo Stanley: Buenos Aires, November 2011.
consumer prices and 5,062 percent for wholesale prices” (Smith 1991). Repeated failed efforts to change economic course during the 1980s culminated in two hyperinflation episodes in 1989 and 1990. Once inflation had turned into hyperinflation, the fiscal revenue losses, together with the systemic losses caused by hyperinflation closed off the option of inflationary financing (Melo 2010). The failure of heterodox programs and the growing influence of IFIs made it more apparent that orthodox structural adjustments might be needed to restore stability and growth. In yet another case of political instability, Alfonsín abandoned his presidency early in an election year, during a crisis of hyperinflation in 1989. The grim menace of severe crisis in excess of hyperinflation was a constant concern for Argentine society, and this grave preoccupation represents the first of four productive conditions in my critical juncture framework.

In 1989, Carlos Saúl Menem (PJ), former governor of La Rioja province, was elected successor to Alfonsín. At the time, Argentina was in the midst of acute hyperinflation driven by the monetization of large fiscal deficits. There was mounting societal conflict, and a growing consciousness among the electorate that something must be done to stabilize the economy. President-elect Menem brokered a deal with outgoing Alfonsín and with Congress to assume the presidency in July 1989, ahead of the

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75 As Levitsky (2001) points out, during its time in opposition between 1983 and 1989, the PJ avoided responsibility for post-debt crisis stabilization measures. The PJ was therefore not forced to reconcile its traditional platform with the new economic realities while it was in opposition. The Alfonsín (UCR) government failed to resolve mounting economic problems, which facilitated the PJ’s return to executive power in 1989. The Menem (PJ) government was severely constrained in its policymaking when it first took office in 1989. Ongoing macroeconomic morass all but eliminated the feasibility of the statist and pro-labor policies that had been the core of the Peronist program. And yet, led by Menem, the PJ did adapt with considerable success to the challenges of economic liberalization and working-class decline.

76 Author interview with Juan Gabriel Tokatlian, Professor, Departamento de Ciencia Política, Universidad Torcuato di Tella: Buenos Aires, November 2011. Author interviews with Nicolás Gadano and Daniel Heymann: Buenos Aires, November 2011. All three of these experts pointed out the significance of hyperinflation and societal sentiment as factors crucial to society’s acceptance of the neoliberal reform agenda in Argentina during the 1990s.
traditional rules of inauguration. At the time Menem took over as president, debt and hyperinflation had placed Argentina under serious fiscal constraints. Menem saw political opportunity in economic crisis, and he secured extraordinary executive decree power from Congress in exchange for his early assumption of the presidency.

On his day of inauguration on July 9, 1989, President Menem delivered the following warning to Argentines: “We have to conduct major surgery without anesthesia. If not, Argentina has no future.” Upon taking office, and with a powerful electoral mandate, Menem put emergency measures in place in response to the hyperinflation crisis, after which he implemented two major structural reforms. First off, to conquer hyperinflation Menem established the Plan de Convertibilidad (1991), which pegged the peso to the US dollar, and thus ruled out the option of any further inflationary policy. Under the currency board, Argentina was no longer able to print money to finance its public spending. Second, Menem introduced tax reforms in 1994—the only fiscal option available under the fiscal constraints of Convertibilidad. Menem’s tax reforms focused on raising revenue in the short run and on the administrative aspects of tax collection. In order to raise revenue, Menem proposed a new VAT. Menem managed to secure support for much of his reform package by engaging in a number of fiscal pacts with provincial legislators, in which he exchanged support for concessions (Eaton 2005: 88-114). Convertibility proved to be effective initially, as the macroeconomic situation stabilized and the broader economy again resumed international engagement. In combination with

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78 Melo (2010) notes that Alfonsin had contemplated these same measures. But it was only after the incentive structure had changed that tax reform was implemented under Menem. The short-term incentives for reform came primarily from the hyperinflation crisis. Moreover, the weakness of the UCR meant that Menem faced no organized political opposition to tax reform.
the measures pointed out above, convertibility helped Argentina secure a series IMF disbursements illustrated below in Figure 7.

Figure 7 – Transactions between Argentina and IMF (1984-2007)

A set of additional comprehensive measures distinguishes Argentina’s 1990s neoliberal reform program. To restore macroeconomic stability, the Menem government reduced tariffs and liberalized capital markets. Argentina also entered into an extensive neoliberal reform program overseen by the IFIs. During this period, Argentina started negotiations to become eligible for the Brady Plan of 1989; a debt settlement plan carefully monitored by the IMF, World Bank, and commercial banks. In response to the IFIs and his team of technocrats, Menem pushed through a series of “shock therapy” reforms focused on trade liberalization, central bank independence, deregulation, and privatization of SOEs (Galiani, Heymann and Tomassi 2002). These measures were met by the second and third of four productive conditions in Argentina: the globalization of world production through the reintroduction and acceleration of market economics; and
the general rise of neoliberal ideology and the worldwide proliferation of this view via the influence of IFIs. In lockstep with the interests of the IFIs, Argentina had embarked on an extensive neoliberal reform agenda that must be understood within a broader political-economic context.

As a consequence of Menem’s larger neoliberal reform program, Argentina’s privatization program of the 1990s is set apart from Brazil and even Mexico for its rapid speed and deep extent. Privatization became a cornerstone of stabilization because it guaranteed a massive influx of funds needed to balance the fiscal accounts and to satisfy the IFIs and other creditors. Deregulation and privatization of nontradable and tradable sectors was a multi-stage process at the top of the Menem government’s reform agenda. In 1989, Menem produced legislation that put an end to sectoral subsidies and other protections that constituted the core of assisted capitalism under ISI. In a July 1989 Presidential Message to Congress, Menem declared, “All that the private sector, provinces and municipalities can undertake by themselves will not be done by the National State” (Rausch 2002).

To the extent that proposed reforms conflicted with existing legal frameworks for sectoral development, legislative approval of policy reform was required. But while it did engage in heated debate about issues of privatization, the Peronist-controlled Congress inevitably voted in favor of Menem’s proposals (Jones 2001: 172). In August 1989, Menem gained approval of the State Reform Law (23.696) and the Economic

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79 Author interviews with Nicolás Gadano, Daniel Heymann, and Leonardo Stanley: Buenos Aires, November 2011. All three experts emphasized the influence of IFIs on government decision making toward market reforms during the 1990s.

80 The State Reform Law dealt particularly with privatization, and provided the executive the full authority to privatize a range of SOEs. It established the rules and procedures for privatization. The main stated objective of the State Reform Law was to start an overall divestiture process that would increase fiscal
Emergency Law (23.697). These laws became the legal foundation for the broader liberalization and privatization program (Llanos 2001). As pointed out by Manzetti, “Congress delegated to the executive the power to privatize through decrees, and unlimited discretion on the means and criteria to be implemented” (Manzetti 1999: 72). Of political significance is that this legislation prevented the opposition from utilizing legal measures and appeals to block the reforms (Jones 2001: 172).

**Hydrocarbon sector development policy reforms of the 1990s:**

In the 1990s, Argentina’s hydrocarbon sector became prone to the internationalizing pattern of market reform. YPF was at the top of Menem’s list of SOEs slated for reform. In the decree context, Menem’s plan for reform to the hydrocarbon sector proceeded as a two-part strategy: first, the upstream and downstream segments of the petroleum market were liberalized to improve the incentives needed to attract private investors; and second, YPF was restructured to transform it into a more efficient and internationally competitive company. Unlike other cases of privatization carried out at the time in Argentina, Brazil or Mexico, the state restructured YPF before selling it to private investors. In fact, YPF’s privatization was carried out in three stages: first, restructuring; second, partial privatization; and third, full-privatization. These stages and their policy implications required a number of institutional reforms to the hydrocarbon sector.

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revenues to service debt, contribute to stabilization, and improve the quality and coverage of public services (Galiani et al. 2005).

81 The Economic Emergency Law was intended to restructure the finances of the public sector. It allowed the president to mandate an immediate and temporary reduction in public expenditure, mainly in subsidies and tax breaks for industrial promotion.
Menem’s mission to reform the hydrocarbon sector was not free of institutional constraints. Federal laws and the Constitution upheld the preexisting institutional structure of nationalized ownership and the public monopoly. But this proved not to be an issue for Menem thanks to the State Reform Law and the Economic Emergency Law. In 1989, amid widespread contention, by executive decree, Menem embarked on deregulation of the petroleum industry through the Hydrocarbons Act. The Hydrocarbons Act of 1989 permitted: (1) elimination of price controls and quotas on exports and imports; (2) deregulation of refineries; (3) removal of restrictions on the trade of crude oil by producers in domestic and international markets; and (4) creation of bidding rounds for exploration and production investment (Gadano and Sturzenegger 1998). The Hydrocarbons Act represented a powerful decree mechanism that was unique to Argentina, especially in comparison to Brazil and Mexico. The preexisting public monopoly that regulated Argentina’s hydrocarbon sector was transformed into one of the most liberalized energy markets in the world. Deregulation made provisions for a completely liberalized price structure, for private participation at all stages of the production chain, and for private subsoil rights.

Apart from YPF, restructuring of ownership rights to the hydrocarbon sector began with the auctioning of concessions for exploration and development of blocks located throughout the Argentine territory. New concessions were granted and implemented under El Plan Argentina. Restructuring of the sector had almost immediate effects. The federal government earned approximately US$1.5 billion from

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82 Author interview with Gerard Rabinovich: Buenos Aires, November 2011.
83 El Plan Argentina built upon El Plan Houston, launched by the Alfonsín government. The goals of these programs were to attract private investment in the oil sector, to achieve self-sufficiency in oil, and to expand the export of oil (Yeatts 1996: 139).
the auction of property rights to primary blocks and about US$250 million from the secondary blocks (Margheritis 1999: 206). YPF’s share of national petroleum production dropped from 98 percent of the total production in 1989 down to 43 percent in 1991 (Manzetti 1999: 115).

A different set of criteria more specific to NOCs guided Menem’s decisions regarding the privatization of YPF. In operational terms, YPF was revenue-deficient and needed higher levels of capital and technological investment to increase productivity and to become competitive. The public sector had no means to fund those investments. Intent on privatization, Menem opted to sell YPF as a single enterprise to maximize revenue. This option required the prior transformation of YPF into a profit-making concern, after which it would be privatized with its national monopoly status intact. YPF was therefore transformed into a more efficient and streamlined operation under the Plan Transformacion Global de YPF. This plan was in keeping with the new regulations for the sector that favored market competitiveness. This restructuring plan deployed various political and economic instruments such as joint ventures, the sale of unnecessary or unprofitable assets, and employee layoffs, all aimed at making YPF more globally competitive. Overall, the restructuring led to a swift financial turnaround. After having reported a net loss of over US$700 million in 1990, YPF earned a profit of US$500 million in 1992. In fact, as of 2002, petroleum was one of the country’s most important exports, and represented almost 10 percent of total exports (ECLAC 2008). However, financial gains realized as a result of the restructuring of YPF came at the expense of labor. Integral to the restructuring was a drastic reduction in the YPF labor force. The company’s number of employees decreased from 51,000 in December 1990 to 8,000 in
December 1993 (Galiani et al. 2005). The reduction of workers came about as a result of a new labor agreement that permitted layoffs.

With the return to democracy in Argentina, the politics of hydrocarbon sector development policy reform involved a number of competing societal interests who made their voices heard throughout the reform period during the early-1990s. Democracy permitted societal actors to voice their preferences in a case of reform bound to produce both winners and losers. Privatization of YPF required the approval of Congress. Legislation was required to privatize YPF because the State Reform Law of 1989 did not contain such provisions. The legislative process took place in 1992. With differences centered on the future operating mechanism of a privatized YPF, opposition to privatization came from four primary groups: (1) the UCR, which had backed state ownership of hydrocarbons since the 1920s; (2) los dipusindicales who represented the interests of labor; (3) domestic businesses with sectoral interests; (4) representatives of the hydrocarbon-producing provinces. Some in these groups voiced their concerns to ensure that reforms reflected their policy preferences, rather than opposition to privatization per se (Kozulj and Bravo 1993: 260-270). The military, once an influential actor in the direction of hydrocarbon sector development, had become insignificant to the reforms. After having been politically marginalized in the wake of economic crisis and Falkland Island War defeat in 1982, the military was not in a position to pursue its policy preferences for hydrocarbons in favor of a nationalized sector with a state monopoly. Finally, Argentine public opinion was evenly divided on the issue of YPF privatization.

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84 Menem set the stage for privatization of YPF when, in December 1990, Menem issued Decree 2778/90 for the reorganization and privatization of the NOC. Also in December 1990, Menem issued Decree 2723/90, which moved to convert Yacimientos Petrolíferos Fiscales Sociedad del Estado (the NOC) to YPF Sociedad Anonima, a company able to be privately owned.
From a societal perspective, hydrocarbon sector reforms in Argentina involved a unique set of actors. Domestic business actors and labor had benefited from protection under ISI and were seriously threatened by liberalization and integration into global markets. The reforms stood to generate many domestic losers. To some extent the reforms were drafted in negotiation with affected business and union leaders. Some of the potential losers managed to take part in negotiations and voice their concerns and policy preferences. Powerful relative to the state and to foreign capitalists, domestic business actors gained privileged access to reform negotiations. Business actors sought to maintain control of the market share they had grown accustomed to under ISI. They therefore lobbied the state for market concentration via privatization, tariff regimes, and preferential deregulation. Union leaders were also made a party to negotiations and also opted for market-share as a side payment on behalf of labor. Business and labor sought to concentrate the future market structure in defense of international competition. In summary, this process of reform negotiation exemplifies the corporatist form of state-society relations that distinguishes hydrocarbon sector policy reform in Argentina in the 1990s (Etchemendy 2011: 62). It represents a case of sectoral policy reform that was relatively inclusive and balanced, as it was crafted in a tripartite arrangement that involved government, business, and labor.

Out of the negotiations, the Menem government agreed to pay off actors in the hydrocarbon sector through two principal means (Treisman 2003). The first form of side

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85 Etchemendy (2011) finds that input by business actors in the reform process was limited to producers of intermediate and durable goods, including hydrocarbons, because of their political influence and because of the magnitude of threat liberalization posed to their operations. These domestic actors had the capabilities and experience to identify market concentration in the hydrocarbon sector during the ensuing reform period. As a result, these powerful domestic business actors sought politically induced market concentration to reduce the uncertainties of enhanced competition.
payment involved protectionist and partial deregulation. In the case of protectionist deregulation, partial deregulation of service contracts with the state took place. The goal was to secure market reserves to traditional producers in the newly opened economy. The second form of compensation was through the awarding of state assets. Domestic actors were awarded direct controlling stakes in the hydrocarbon sector. Under privatization, domestic oil companies were favored with central production areas and oil refining facilities (Etchemendy 2011: 65). In the end, the government provided compensation to business and labor actors who stood to lose the most as a result of reforms to the hydrocarbon sector.

The ruling PJ party played its own unique part in Argentina’s hydrocarbon sector reform process. In fact, labor’s willingness to accept market-oriented side payments in exchange for massive job losses must be understood in the context of PJ party reorientation. The PJ’s programmatic reorientation is well known (Snow and Manzetti 1993: 76-87). Menem had campaigned on a vague populist platform. He was elected through strong support from a wide range of voters along the national and regional, political and economic spectrum. Once in office, Menem government responded to the 1989 hyperinflationary crisis with a stunning “reform by surprise” (Stokes 2001). In rejection of economic populism Menem pursued a dramatic orthodox neoliberal reform program. Yet, Menem faced surprisingly little resistance from within the PJ. Indeed, not once did the PJ National Council publicly oppose a position taken by Menem.

According to Levitsky (2001), the relative ease with which the Menem leadership undertook its programmatic reorientation was rooted in a series of shifts in the PJ’s organizational structure. First, Menem achieved intraparty realignment in exchange for

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86 Author interview with Gerard Rabinovich: Buenos Aires, November 2011.
the granting of powerful government positions. Such defections enabled Menem to form a new coalition within the PJ. The new coalition enjoyed a legislative majority within the PJ, which allowed for the relatively smooth passage of the bulk of the government’s legislative agenda. Second, the PJ’s post-1990 party leadership quit labor advocacy in exchange for side payments and promotion of *Menemismo*. Third, deunionization enabled the PJ to reconfigure its electoral coalition in line with the social structural changes generated by deindustrialization. Reformist party leaders took advantage of their autonomy from the unions to broaden the PJ’s electoral appeal, which enabled the party to make significant inroads among independent and middle class voters in the 1987 and 1989 elections. At the same time, the consolidation of patronage-based territorial organizations helped the PJ maintain support among the urban poor. The effects of PJ reorientation were borne out in the case of hydrocarbon sector reforms.

Congressional debate over YPF privatization took place in August 1992. In response to a rising tide of congressional resistance to privatization, Menem threatened to carry forward the privatization by decree. He warned that without the proceeds of YPF privatization Argentina would not be able to meet its surplus deadline as conditioned by the IMF. Along with coercion, Menem also negotiated and applied a series of pork measures to persuade Congress to vote in favor of the privatization law. First, Menem targeted UCR opposition, and he gave up the proposal to fully privatize YPF. Menem agreed to retain a minimum 20 percent stake of state ownership in the privatized YPF. Second, Menem appeased *los dipusindicales* through negotiations with the CGT, at which time he gave assurances to only to union leadership. Finally, for the hydrocarbon-producing provinces, Menem allotted 39 percent of YPF stocks to cancel

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87 Author interview with Nicolás Gadano: Buenos Aires, November 2011.
debts owed to the provincial governments (Eaton 2005: 88-114). Provincial government ownership and control of their respective hydrocarbon resources was also re instituted. After heated negotiations Congress passed the YPF Privatization Law (24.145) in September 1992. The vote was 119-10 in favor (Galiani et al. 2005). An additional victory for the provinces was the Law of the Federalization of Subsoil and Privatization of YPF (24.145), which was also passed in 1992.88 Once the Privatization Law of 1992 had passed and created YPF SA, stock sales began in both the foreign and domestic capital markets.89 But the reform of 1993 was a partial privatization of YPF, and the federal government retained a controlling interest with 20 percent of the outstanding shares. Through the ratification of Law 24.145, YPF was converted into a mixed public-private corporation.90

As of 1993, YPF operated as a privatized and publicly traded company. Overall, Argentina increased its oil production by 65 percent during the 1990s, which translated to almost 4 percent annual growth in production capacity. Moreover, in the early 1990s, Argentina became a net exporter of oil.91 YPF and other Argentine oil companies followed the globalization trend. YPF and Perez Companc were the two main integrated

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88 Restructuring of YPF involved the conclusion of an ongoing dispute between the federal and provincial governments over subsoil property rights to hydrocarbons. The purpose of re-federalization was to increase the efficiency of the petroleum industry and to counteract anticipated political opposition from provincial political power brokers who were likely to oppose privatization. The federal government moved to implement the Federalizacion de Hidrocarburos, in which it recognized provincial government ownership and control of blocks located in their respective territories. Menem carried out this measure in order to secure political support from the provincial governments.

89 The federal government sold 160 million shares or 45 percent of shares outstanding, at US$19 per share, and rose over US$3 billion in the initial public offering. The federal government applied 60 percent of these proceeds (US$1.7 billion) toward pensions, with the remainder being turned over to the provinces as royalty payments (Galiani et al. 2005).

90 Also, through a golden share, the federal government held veto power on such matters as: “(1) decisions on mergers with other corporations; (2) takeovers involving more than 51 percent of the capital stock; (3) transfer of all production rights to third parties whereby all exploration and production activities by YPF would cease to operate; and (4) voluntary dissolution of YPF SA.” (24.145)

91 Author interview with Guisela Masarik: Buenos Aires, November 2011.
Argentine oil companies until 1999. YPF and Perez Companc rapidly developed a significant international presence. Both companies internationalized to expand their portfolios of petroleum reserves and to take advantage of profitable opportunities in neighboring countries that had just started liberalizing at the upstream level. In summary, it was after privatization that the former state enterprise YPF transformed itself from a revenue-deficient concern into an efficient and profitable privatized petroleum producing company. YPF’s petroleum production increased, as did its reserves by approximately 80 percent between 1990 and 1997. Moreover, the internationalization of Argentina’s hydrocarbon sector noted here further illustrates the presence of the second of four productive conditions in my analytical framework, i.e. the globalization of world production through the reintroduction and acceleration of market economics.

Between 1991 and 1997, Argentina’s broader economy grew at impressive rates, with real GDP growing at an average rate of 6 percent. Under Convertibilidad Argentina experienced growth rates among the highest in Latin America. With the risks of devaluation apparently removed, and with the broader liberalization mission underway, FDI poured into Argentina, and along with that, many US dollars. This massive inflow of FDI dramatically influenced the restructuring of domestic business sectors. By 1999, most structural market reforms had been accomplished, and the vast majority of public enterprises had been transferred into private hands. But compensation to domestic businesses did not guarantee them competitiveness in the liberalized economy. As Etchemendy (2011) finds, many of the rewarded business groups proved incapable of competing with global competition. Many of these domestic business groups, including

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92 In 1999 YPF was present in Indonesia, Ecuador, Colombia, Venezuela, the US, Bolivia and Brazil. Perez Companc was present in Venezuela, Ecuador, Peru, Bolivia, the US, Brazil and Chile.  
93 Author interview with Guisela Masarik: Buenos Aires, November 2011.
Perez Companc sold their assets in the late-1990s. The Menem government adopted a similar approach for YPF. YPF was also sold off to international investors. In 1999, amid record low international oil prices, the privatization process reached its crescendo when, in July, the Spanish petroleum company Repsol formalized an offer to purchase 85 percent of YPF’s outstanding shares for more than US$13 billion. At the time, Repsol already held 14.99 percent of YPF shares that had previously belonged to the Argentine state. The Menem government approved Repsol’s offer. Not only did Repsol’s purchase of YPF in 1999 conclude a decade-long privatization process, it also put an end to the continuous struggle between the state and private capital over petroleum in Argentina.

In summary, the privatization of YPF turned into a financial exit for the federal government that was reached in 1993. Through privatization of YPF, the Menem government was able to overcome its financial problems brought on by debt overhang and hyperinflation. Menem and the Peronists were able to privatize YPF through the consolidation of a reform coalition. Limited opposition to the partial privatization in 1993 served as an encouragement for the Menem government to introduce full privatization of YPF when, a few years later, in 1998, Argentina was once again beset with major macroeconomic difficulties (Calvo and Talvi 2008: 120).

The unique three-stage privatization process illustrates the motivations of the Menem government to maximize the political and economic benefits of the YPF privatization. Per Yeatts (1996: 153-154), Menem had two goals for YPF privatization: (1) to secure a major cash infusion needed to ease the urgent financial crisis of the state and to sustain the Convertibility Plan adopted in 1990, which pegged the peso to the US

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94 Author interview with Daniel Heymann: Buenos Aires, November 2011.
95 Author interview with Juan Gabriel Tokatlian: Buenos Aires, November 2011.
dollar; and (2) to regenerate foreign investment back into the Argentine economy, which had come to be labeled a high-risk national market from the global perspective. Following the primary hypotheses put forth in the literature to explain privatization, Menem moved to privatize YPF to achieve economic objectives, namely, the elimination of an inefficient SOE in exchange for the influx of a windfall of revenue that could be applied against the external debt problem. This decision was aided by the fact that international prices for crude oil had already gone into decline and continued on this downward trajectory throughout the course of the 1990s. Overall, the privatization of YPF was indicative of a clear change in the direction of the economic development of the country. An assessment of additional factors is considered in further detail, below in the conclusion.

Conclusion:

This chapter has explained intertemporal variation in Argentina’s hydrocarbon sector development policy with emphasis on the market reform period of the 1990s. A narrow level of state capacity explains Argentina’s hydrocarbon sector SOC over time and in particular, the evolution of YPF into a revenue deficient and technologically incapable NOC. This chapter has also explained the reforms carried out to deregulate and liberalize Argentina’s hydrocarbon sector SOC during the 1990s, and the privatization of YPF. The chapter finds that the factors that caused reform are narrow state capacity in combination with a pro-market reform coalition. Following Mahoney and Thelen (2010),

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96 Author interview with Nicolás Gadano: Buenos Aires, November 2011.
97 Author interview with Daniel Heymann: Buenos Aires, November 2011.
evolution of hydrocarbon sector SOC in Argentina shows that it is possible for historical institutional preconditions to change in a frequent and unpredictable manner. In such conditions of change, extensive reforms such as privatization of Argentina’s hydrocarbon SOC in the 1990s are more likely to bear out. Moreover, such volatile institutional change leads, in the implementation phase, to a lesser degree of policy stability.

The case of Argentina also demonstrates the links between political instability, narrow extractive capacity, and hydrocarbon sector development policy reforms. It highlights the complications of relations between provinces and the central government in federal republics. Such complications can prevent the construction of a stable institutional framework for intertemporal policymaking and by association, taxation (North 1990). Throughout the twentieth century, different federal government leaders interfered in YPF. YPF’s operations were subordinated to the political goals of the state. This occurred in a number of ways, namely in the form of counter-inflationary measures such as price controls and subsidies in addition to the distribution of political rents. A different set of factors explains the type of policy reform that is chosen. In this case privatization was chosen; one outcome on the dependent variable of this study, SOC. The federal government’s penchant for underinvestment and interference in YPF were instrumental to the federal government’s choice to pursue privatization.

The case of Argentina further demonstrates the impact of excessive hyperinflation on a government’s decision to reform the hydrocarbon sector. Economic crisis is a factor that bears upon both the extent and timing of a government decision to privatize. Argentina’s challenge in the 1990s was to navigate the process of market reforms under the constraints of Convertibilidad and increasing capital mobility. But market forces and
the macroeconomic situation in 1989 did not by themselves dictate the reform agenda in Argentina during the 1990s.

Moreover, political time horizons also played a role in the process of hydrocarbon SOC reforms in Argentina during the 1990s. The political goals of Menem were instrumental to the timing and content of reforms. A variety of attempts at liberalization had been tried prior to the 1990s, but it was under Menem (1989-99) that Argentina’s development strategy was dramatically reoriented to the market. Menem proposed such reforms for economic and political reasons. First, in fiscal terms, privatization and tax reform were among Menem’s few policy choices given that inflationary policy had to be halted in response to debt crisis and hyperinflation. Second, Menem’s political capital was high relative to the UCR opposition. The Menem government did not meet with much political opposition to its choice to reform the hydrocarbon sector. Indeed, likely opposition forces to privatization were weak in Argentina. Unlike in other Latin American countries, the left in Argentina did not have a significant impact on the debate over whether or not to reform the hydrocarbon sector. This is explained by Argentina’s PJ-dominated political structure, which repeatedly co-opted the left, thereby preventing it from establishing a unique ideological foothold in Argentine politics. Therefore, the absence of an exclusively leftist nationalist agenda permitted Menem to form a reform coalition that included actors who in other Latin American cases were utterly opposed to privatization.

Beyond partisan politics, a case of privatization such as YPF might predict major societal resistance to reforms by business and labor interests formerly protected under the ISI model. Argentina’s form of late-industrial development yielded private domestic

98 Author interview with Gerardo Rabinovich: Buenos Aires, November 2011.
groups based in the hydrocarbon sector whose power relative to the state and to foreign companies at the outset of neoliberal reform was unique and not present either in Brazil or in Mexico. Therefore, as Etchemendy (2011) argues, what is often viewed as an orthodox and unilaterally imposed market transformation was, to a considerable extent, founded on coalitions cemented in more or less formal bargains with a variety of sectoral interests established during ISI. For that reason, Menem maneuvered a weakening of ISI actors by reforming hydrocarbon SOC in stages. Menem envisioned reforms as a political opportunity to dismantle existing political coalitions, and to build new coalitions. Menem did so through the granting of market privileges and other side payments to business actors. To the detriment of their rank-and-file, union leaders backed privatization after being offered side payments and the opportunity to buy divested YPF assets at below market rates (Etchemendy 2011).

Furthermore, transformation of the PJ facilitated the cooptation of business and labor groups in the reform process. The PJ’s programmatic adaptation to market economics was accompanied by substantial electoral success in the 1990s. The party won four straight national elections after its neoliberal turn, including Menem’s 1995 reelection. Hence, both the PJ’s flexibility and its societal rootedness contributed to its electoral success and to continued support for Menem and his neoliberal agenda in the 1990s (Levitsky 2001).

Yet Convertibilidad and market reforms did not solve all of Argentina’s problems. The move from fixed exchange rates and overvalued currencies to the neoliberal reform agenda produced a number of consequences. The radical enforcement mechanism of Convertibilidad solved Argentina’s problems associated with inflationary
financing of the public sector deficit, but inevitably it proved to be too rigid. By the late-1990s, foreign investors began to fear that unless there was an important fiscal reform Convertibilidad would collapse, the exchange rate would plummet, and there would be a default on the Argentine debt. There was no major fiscal reform, and the expectations of investors became a painful reality. In 2001, the experiment of Convertibilidad met its demise under the effects of an acute economic, political, and social crisis (Calvo and Talvi 2008: 120). The acute crisis of 2001 generated new challenges and problems.

Altogether, the 1980s and 1990s reform period, the collapse of Convertibilidad, and the subsequent 2001 crisis had enormous sociopolitical effects on Argentina. This is explained largely by dramatic alterations to the structure of production through the opening up of markets, privatization, and the aggressive reintroduction of foreign capital into the domestic market. As a result, the 2000s brought additional change to the structure of Argentina’s exports, which, based on this chapter’s analysis, is likely to induce further national institutional change, going forward.
Ch. 5 – Brazil and Petrobras

“O ponto é, portanto, a abandonar a velha idéia de que o Estado deve resolver todos os problemas. Sabemos perfeitamente que, quando o Estado controla tudo, poucos controlar o Estado.” – Celso Furtado, 1976

Chapter overview:

In this chapter, I explain how Brazil’s long-term dependence on petroleum imports led to a broad level of state capacity. The chapter illustrates how, under conditions of debt crisis, the hydrocarbon sector development policy of a government with broad state capacity can become moderately altered. In this country case chapter my empirical analysis demonstrates the conditions that yield the policy choice of flexibilization as one categorical outcome on my dependent variable proxy, SOC. As proposed in Figure 2, it is hypothesized that in a country case where state capacity is broad, and where the president organizes a net pro-market reform coalition, flexibilization is likely to be chosen as a policy for the hydrocarbon sector. Flexibilization falls into the upper left quadrant of Figure 2. Here, I test this hypothesis and competing hypotheses on Brazil’s upstream hydrocarbon sector during the 1990s.

Petróleo Brasileiro Sociedade Anônima (Petrobras) was established by the Workers (PT) party government of Getúlio Vargas in 1953. Petrobras became Brazil’s NOC and was charged with a national public monopoly over hydrocarbons. At the time, there was little if any political resistance to the creation of an NOC with a national monopoly in the sector for lack of an established presence by domestic or foreign private actors to lobby policy. Those in favor of liberalization “had lost much of their political influence while the nationalists used the growing pressure of oil imports on the balance of payments to support their view that the country’s financial exposure required a state
enterprise to manage the national interest” (Adilson de Oliveira 2012: 520). Remarkably, the move by the Estado Novo to constitutionally nationalize Brazil’s hydrocarbon sector in the 1950s took place in the absence of any prior discovery of major reserves within the national territory. This policy choice is in stark contrast to Argentina and Mexico, both of which formed NOCs after upstream operations in their respective petroleum sectors had already been well established by IOCs.

Unlike Argentina and Mexico, Brazil was not gifted with easily accessible petroleum reserves, and so it was left out of an initial wave of early-twentieth century petroleum development conducted by IOCs. Its geological obstacles combined with a lack of domestic technology and legal limitations on IOC investment also meant that Brazil remained a net petroleum importer for the entirety of the twentieth century. Major upstream hydrocarbon development was postponed until Petrobras finally made major offshore discoveries in the late-twentieth century. In fact, as pointed out by Smith (1976), “the Brazilian oil industry owes its existence to the state, which is an anomaly in the Western world.” The creation of Petrobras in 1953, followed by continued state support for this NOC up to and including the market reform period of the 1990s, as well as to the present time, therefore demonstrates the Brazilian state’s evolving pattern of “embedded autonomy” as a form of state-led sectoral development of hydrocarbons (Evans 1995).

This chapter’s qualitative comparative analysis finds that, in the case of Brazil, flexibilization of Petrobras was carried out during the 1990s for three primary reasons. First, there was the need to raise revenues to restore macroeconomic stability. Second, there was general societal optimism that the recent achievements of Petrobras were to be
credited to structural and institutional legacies of broad state capacity. My analysis of Petrobras confirms developmentalist and economic nationalist theoretical claims about state enterprise (Sikkink 1991). Such claims predict that governments most effectively direct their economies and societies to the “commanding heights” of development by way of autarky, targeted investment, bureaucratic efficiency, and a certain degree of autonomy from the influence of societal actors. Brazil’s exemplification of a paradigmatic economic nationalist state enterprise model in the case of hydrocarbons is here explained as a consequence of the broad capacity of the federal state, itself. Third, and finally, interest-based rationality found in a net pro-market reform coalition comprised of a variety of actors who either opposed or supported Cardoso’s preference to turn Brazil’s hydrocarbon industry over to the market also explains the policy choice of flexibilization. Moreover, widespread evidence of Petrobras’s efficiency and performance, indicated by its offshore discoveries beginning in the late-1970s, served to detract from Cardoso’s argument for complete deregulation and privatization as part of a broader market reform strategy. Once the Cardoso government introduced privatization of Petrobras to the agenda, while it did not achieve its initial choice, its political capability to successfully organize a reform coalition carried the process forward to approval and to implementation of flexibilization.

The remainder of the chapter is structured as follows. First, I provide a brief overview of material facts about the export profile of Brazil, and its hydrocarbon sector. Second, I trace the process of SOC variation over time to demonstrate patterns of gradual institutional change apparent in the hydrocarbon sector in Brazil. This includes a succinct description of the legal and organizational structure of the national hydrocarbon
industry and that of Petrobras. This historical institutionalist narrative is organized inter-temporally, by the antecedent, the permissive, and the productive condition categories of my critical juncture framework. At the heart of this process tracing analysis is the data I put forth to test my hypotheses of economic crisis, state capacity, and reform coalition configuration. Third, and finally, I consider a number of alternative explanations, and I summarize my findings. Through hypothesis testing, the chapter confirms that the determinants of flexibilization are both domestic and external in nature. Overall, the effort exhibited by this case analysis demonstrates that, as has been previously acknowledged by political scientists who have researched Brazil, the SOC of Brazil’s hydrocarbon sector is a reflection of the country’s century-long pattern of state-led development otherwise referred to as “embedded autonomy” (Evans 1995).

Material facts:

Historically, Brazil has been net importer of hydrocarbons, and a major importer of petroleum OECD/IEA 2006). Self-sufficiency in domestic petroleum production has been a long-term goal of the Brazilian state (Smith 1976), which was realized by major discoveries in the Campos Basin in the 1970s, and again in 2007. These increases are illustrated in Figure 8. Brazil’s domestic production trend is therefore on the incline over the time period under analysis in this dissertation, which translates to a long-term production time horizon.
The historical contribution of oil imports to Brazil’s economy is illustrated below in Figure 9, as is the growing increase in oil exports that took place over the decade of the 1990s as a result of the operational autonomy and technological capacity of Petrobras.
Antecedent Conditions (1950s-1960s):

(1) Form of state-society relations

For most of the nineteenth century and into the early-twentieth century Brazil’s economic development was driven by agricultural commodity exports (Baer 2008; Furtado 1971; Lewin 1987). Brazil was not immune to the global consequences of the Great Depression. At the time, Brazil’s main exports of coffee and sugar suffered tremendously once global demand came to an abrupt halt (Sinnott 2009). Before long, economic crisis sparked political and societal unrest and the First Republic fell to the Revolution of 1930. The Revolution brought Getúlio Vargas (1930-1945 and 1951-1954) to power as president. Under Vargas, a new economic model was adopted, intended to shift production away from agriculture and its vulnerability to volatile export prices, toward industrialization (Surrey 1987).

Even after the Revolution, Brazil’s landed oligarchy remained politically powerful, which prevented swift transition to a governing coalition featuring a nationwide labor movement (Lewin 1987; Viotti da Costa 2000: 199). Yet, this did not prevent the Vargas government from creating an urban-based labor movement that was penetrated by the state. Between 1930 and 1945, Vargas crafted channels of representation and a series of mechanisms to organize labor as part of a broader corporatist political-economic system (Collier 1982; Mahoney 2001). Meanwhile, most rural areas remained untouched, and the peasantry remained wholly unincorporated (Lewin 1987; Viotti da Costa 2000: 199). With time, however, the rural oligarchy would eventually be overpowered by an alliance between the military and the urban middle
class that secured control over the federal government (Fernandes 1981; de Oliveira 2012).

Popular sector incorporation in Brazil therefore involved gradual but steady changes in the national political and economic structure. This realignment of the Brazilian sociopolitical structure also reconfigured the national political economy under ISI, which gave birth to a new set of interests and ideas that influenced national development (Hall 1997). Given post-Revolution politics and the initial terms of incorporation of the Brazilian working class, ideological positions did not drive groups to suddenly identify with a particular mass political party as was the case in Argentina and Mexico (Collier and Collier 1991; Levitsky 2001). Instead, a national party system developed through ongoing competition for support from labor and other interest groups. “The competitive bidding for popular sector support in Brazil worked to the advantage of the popular sectors, which were thus in a better position to exert pressure in the arena where policy decisions took place” (Collier 1982: 96-97). The popular sectors retained greater political autonomy and bargaining leverage. Eventually, through a series of complex intermediate steps, a multiparty system was established in Brazil (Hagopian et al. 2009).

The Brazilian state has a history of extensive involvement in the process of capital accumulation relative to the Argentine and the Mexican states. In Brazil, the public sector has traditionally played a far larger role in promoting development (Alston et al. 2006, 2010; Bresser-Pereira 2012; Cohen 2011: 9-10; Sikkink 1991). In turn, this reflects a greater than average willingness among private sector elites to accept the state as a central actor in the economy. The Brazilian state’s comparatively weaker cooptation of
the popular classes described above gave the popular class more leverage to demand redistribution (Mahoney 2001), consequently leading to an increased federal tax burden (Afonso and Almeida 2011; Samuels 2003). The mode of incorporation of the popular sector proved to be a key force behind revenue collection for a federal state that took on a number of other lead roles in society in Brazil (Cardoso 2003; Furtado 1971).

The Brazilian state has demonstrated a clear pattern of broad extractive (state) capacity in comparison to Argentina and Mexico. As explained in chapter 3, levels of taxation over time are the indicators applied to measure extractive capacity. Brazil is a federal republic. The Brazilian state established a pattern of leadership in tax collection that predates popular incorporation, back to the nineteenth century when it taxed trade. Prior to the 1940s, foreign trade, particularly import tariffs, accounted for nearly 80 percent of federal tax revenue (Samuels 2003). But with the effects of the First World War and the Great Depression, trade taxes declined significantly in Brazil.

By 1940, Brazil transitioned to a system based mainly on income and other domestically generated taxes. With the implementation of ISI, public sector investment and the provision of credit to the private sector played a large role in Brazil’s creation of a tax base (Barbosa de Carvalho 2010). From 1950 on, the Brazilian state further reduced the customs tax as it increasingly enforced the income tax. Since the 1950s, the income tax has come to represent more than a quarter of the country’s tax revenue. In the mid-1960s, major tax reforms carried out by the military dictatorship further broadened and deepened the federal tax base and improved administrative capacity.99 In 1968, the

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99 Brazil’s current taxation level is among the highest in Latin America, and close to that of OECD countries. Tax revenues have consistently risen throughout the 1990s and 2000s. Combined, tax and non-tax revenues have averaged approximately 35 percent of GDP in Brazil (World Bank WDI).
Secretaria da Receita Federal (SRF) was established. The SRF evolved into a bureaucratic agency of the state with broad extractive capacity. With the advent of the SRF, meritocratic recruitment and low turnover marked both the tax and social security administrations at the federal level in Brazil (Melo 2010; Melo, Pereira and Souza 2010). Under the SRF, the federal government experienced measurable increases in tax revenue (Afonso and Almeida 2011; Samuels 2003).

Brazil’s federalist system is distinct in comparison to those of Argentina and Mexico. Sustained resistance by subnational governments to the centralization of taxation authority draws a sharp contrast to Argentina and Mexico. In the mid-twentieth century, once taxes on consumption had started to noticeably replace taxes on foreign trade as the main form of taxation, the states did not cede the power to collect consumption or sales taxes to the federal government (Samuels 2003). Instead, the subnational governments retained important and exclusive tax powers. Moreover, in contrast to Argentina and Mexico, no revenue-sharing scheme through which the states delegate tax collection to the central government was set up in Brazil.

Despite there being no revenue-sharing scheme Brazil’s federal institutions—like those in Argentina and Mexico—provided incentives for provincial elites to seek redistribution from the federal government (Cheibub et al. 2000; Tavares de Almeida 1995). Nevertheless, Brazil demonstrates observable variation from Argentina and Mexico in terms of its incentive structure. In Brazil, federal interventions occurred only in the first decades of the twentieth century, whereas in Argentina and Mexico, centralization under federalism became a permanent feature of the political landscape. By the same token, the federal government in Brazil has been far less dependent on its
subnational governments for revenue than has been Argentina. The Mexican subnational governments rely heavily upon the federal government for revenue transfers. In contrast to Argentina, institutions of federalism were more stable in Brazil (Melo 2010).

Brazil’s extensive ISI model and the development of a domestic market helped legitimate federal state intervention in the economy and the deepening of the country’s extractive capacity Bresser-Pereira 2012; Cardoso 2003; De Paiva Abreu 2004). Although it has made major public investments in the hydrocarbon sector through its NOC (Petrobras), until recently, the Brazilian state has benefited far less from non-tax hydrocarbon revenues than have Argentina and Mexico (Queiroz Pinto Junior 2007). This is due to the fact, as stated above, that for the entirety of the twentieth century Brazil was a net importer of petroleum. Brazil’s upstream industry expanded in response to the Middle East oil price shocks of the 1970s (Roett 1999). Until recently, Petrobras was not a major source of fiscal revenue, which afforded the NOC a unique opportunity to maintain a higher degree of operational autonomy relative to Pemex and to YPF.\footnote{Author interviews with: Helder Queiroz Pinto Jr., Diretor da Agência Nacional do Petróleo, Gás Natural e Biocombustíveis: Rio de Janeiro, October 2011; and Gregório da Cruz Araújo, Economist, Petróleo Brasileiro S.A. (Petrobras): Rio de Janeiro, October 2011.}

(2) Form of ISI

Brazil’s earliest efforts at development of its hydrocarbon resources date back to the colonial period. It was not until the early-twentieth century, however, that the sector became a national priority (De Oliveira 2012: 519). A concrete focus by the state on hydrocarbons emerged in tandem with ISI. The fundamental shift from an agricultural export economy to ISI raised the importance of hydrocarbons as a factor of production in
the 1930s (Barbosa de Carvalho 2010). The ISI development model of the *Estado Novo* favored industrialization and urbanization; two processes that necessitated increased consumption of oil products (Furtado 1971). The *Estado Novo* became known for economic nationalism, protectionism, and a focus on investments in infrastructure and basic input sectors (De Paiva Abreu 2004). As part of this broader strategy, Brazil’s first SOEs were created to control public monopolies.

For Brazil, ISI meant an increase in petroleum imports and therefore a commitment of vital foreign exchange in order to pay for these imports. Consequently, the Vargas regime assigned formal and unrestricted subsoil property rights in an effort to spur development of hydrocarbon resources (Piquet and Serra 2007). The 1934 Constitution formally established property rights for the first time. Thereafter, the 1937 Constitution limited those rights solely to Brazilian citizens or companies constituted by Brazilians (Smith 1976). Shortly thereafter, in 1938, by decree, the federal government took control of all subsoil rights to hydrocarbon resources and established a nationalized SOC for Brazil.\footnote{Also in 1938, the *Conselho Nacional do Petróleo* (CNP) was created to administer and regulate oil industry activities on behalf of the federal state. General Horta Barbosa was the first president of CNP.} Yet, this move did not prohibit contractually based foreign investment in the hydrocarbon sector. In fact, the upstream petroleum industry arose through a fragile reliance on foreign capital and technology needed to locate the nation’s elusive domestic hydrocarbon resources (Raposo 1997).\footnote{During the 1940s, petroleum production did not surpass 2,000 bpd. The sector itself was not even covered by national statistics until 1942. In comparison, oil production in neighboring Argentina began in 1910 and production had reached about 60,000 bpd by the 1940s. By the 1950s, oil consumption was increasing by an average annual rate of approximately 15 percent.} This was a remarkable approach for a revolutionary government skeptical of involvement with foreign investors. At the same time, in Brazil, interest by domestic capitalists in the hydrocarbon sector was directed
primarily at the downstream segment, where consumption levels were on the rise as industrialization was already generating a boom in oil consumption (Smith 1976).

(3) Founding mission of the NOC
In 1946, Vargas was ousted by a new government led by General Eurico Gaspar Dutra (1946-1951) that pushed the state-market pendulum toward a greater role for the market and for foreign capital. This was indicated in a new Constitution that allowed IOCs to organize operations in Brazil to explore for petroleum resources. In 1948, the government sent the Estatuto do Petróleo to Congress, which sought to legalize IOC investment in the hydrocarbon sector (Smith 1976). This effort sparked a public debate between those who saw partnerships with IOCs as the quickest route to capital investment and technology, and those who maintained a nationalistic approach steeped in mistrust of foreign capital. CNP head Barbosa stood in favor of a nationalized and monopolistic SOC. Broad nationalist sentiment emerged from throughout society and culminated in the slogan “O petróleo é nosso”; a slogan still kept alive by oil nationalists, today (Cohn 1968). Unable to muster the necessary votes, the Dutra government was unable to pass the bill, and so hydrocarbon sector development policy became gridlocked.

In mid-twentieth century Brazil, issues of hydrocarbon sector SOC were complicated by a number of competing practical challenges to development. First,

103 Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011. “Even since the 1950s, ‘o petroleo e nosso’ has been an important social movement in Brazil.”
104 Analyses of post-1930s Brazil under ISI have stressed the ample support for a state-led economic model, not only among industrialists, but among other elites (Sikkink 1991). For example, in her comparative study of post-WWII developmentalism in Argentina and Brazil, Sikkink underscores the far greater consensus behind state intervention in Brazil. “Liberalism never took root in Brazil the way it did in Argentina. The real debate in Brazil was not between the liberal model and the planning model but within the developmentalist camp between cosmopolitan and nationalist developmentalists” (Sikkink 1991, p. 67).
geological data and failed efforts at exploration suggested that the country’s onshore oil resources were scarce. Second, IOCs found ample opportunities to develop oil more inexpensively elsewhere throughout the world, which made Brazil’s national hydrocarbon market of little interest. Moreover, Brazil’s petroleum consumption was too small for IOCs to justify risky investments in refineries needed to supply future consumption.\textsuperscript{105} Finally, for the most part, domestic capitalists lacked the financial and technological capabilities needed to develop the upstream oil industry (Cohn 1968). For these reasons, the hydrocarbon sector failed to attract investment even under the more market-friendly SOC of the Dutra administration.

In 1951, Vargas was elected to a second term as president by popular vote and the political-economic pendulum once again swung to the left in favor of the state. A broad process of nationalization played out in Brazil as the post-WWII period rolled on, inspired by the idea that state enterprise held the promise for investment and economic growth (Smith 1976). By no coincidence, the Vargas administration sent a bill to Congress that proposed the creation of an SOE for the hydrocarbon sector. Debate over the bill between nationalists and their opponents became acrimonious. Those in favor of IOC investment had lost much of their political influence while the nationalists seized upon the growing pressure of petroleum imports on the balance of payments to support their view that the country’s financial exposure required an SOE to protect the national interest.\textsuperscript{106} Politics reflected a prevailing view that petroleum development was in the

\textsuperscript{105} The IOC investment formula at the time favored a downstream presence to guarantee control over the national market.

\textsuperscript{106} In contrast to the electric power market, where private investors already had a strong position in the Brazilian market, there was limited political resistance to the creation of a national monopoly in the petroleum industry (Pereira de Melo et al 1994). This contrast in policy between the two sectors demonstrates an early pattern in Brazilian politics, whereby foreign capital was deemed dispensable when its preferences did not align with national convention.
national interest and that it should therefore be directed by domestic capital if not by the state (Philip 1982). Approved in 1953, Law 2.400 established Petrobras, a state-owned monopoly for exploration, production, transportation, and refining of hydrocarbons in the Brazilian market.

Petrobras began its operations in 1954 facing a number of major operational obstacles. Relative to other NOCs at the time, Petrobras owned a minimal amount of proven oil reserves, and it was lacking upstream and downstream technological expertise (Queiroz Pinto Junior 2007). These obstacles distinguished Petrobras from other NOCs in terms of its unfolding pattern of intrastate and broader national political-economic relations (Campos, Tolmasquim and Alveal 2006). First off, its lack of easily identifiable onshore resources required that Brazil build a hydrocarbon industry without foreign involvement. Elsewhere in Latin America, such as in Argentina, Mexico, and Venezuela, foreign capitalists were the first to develop the petroleum industry. This meant that a minimum level of assets and technology had already been permanently invested in the sector at the time of nationalization in those countries. Significantly, in those other countries, the mid-twentieth century nationalization process that spread throughout the region involved a major transfer of assets and technology from the “trusts” (or IOCs).

107 By the same token, this prevailing view inevitably hindered upstream hydrocarbon development because domestic capital was simply unable or unwilling to invest in the sector at a time when IOCs were more attracted to investment opportunities in neighboring Venezuela.

108 Petrobras is an SOE created in 1953 to coordinate development of a domestic oil market in Brazil. From the government’s perspective (the principal), the central objective of Petrobras is to supply oil to the domestic market and to reduce the pressure of oil imports on the trade balance. The government provided Petrobras with a set of financial, regulatory, and taxation incentives for it to accomplish its central objective (De Oliveira 2012: 548). Law 2.400 did not expropriate preexisting investments. At the time, private investors were allowed to maintain ownership of their refineries under operation or under construction. Moreover, Law 2.400 was limited to the upstream market. The refining and distribution of oil products to final consumers was not a part of the Petrobras monopoly. In other words, Petrobras was designed to guarantee majority state participation in the upstream accompanied by private equity participation to guarantee a certain level of capitalization. It was desirable to have a continued presence by private actors in the sector for lack of technological expertise on the part of the federal state.
contrast, Petrobras had to start out with only the very limited infrastructure that it inherited from the CNP (Smith 1976).

Second, unlike in the case of other NOCs that took immediate ownership of vast petroleum reserves and control of their related rents at the time of their formation, Petrobras was not created to be a source of fiscal resources to the government or to provide politically driven goods such as local employment. As a matter of fact, quite to the contrary, Petrobras relied on fiscal subsidies for the first twenty years of its existence. While the government gave Petrobras some discretion to spend revenues that it earned from oil production and sales, revenue scarcity forced Petrobras to learn how to rationally select projects in order to guarantee the cash flow demanded by its budget (Raposo 1997). The newly formed Petrobras faced a third obstacle; given that domestic petroleum production supplied only 2.5 percent of the country’s consumption during the 1950s, the domestic industry was limited to importing, transportation, refining, and marketing. Yet, unlike many other NOCs, Petrobras started out with limited logistic infrastructure needed to supply hydrocarbon products to the national consumer market. Altogether, from an operational standpoint, such obstacles forced Petrobras to place a high premium on efficiency and innovation (Campos et al. 2006). Neither attribute was of major concern to either YPF in Argentina nor Pemex in Mexico where ample proven hydrocarbon reserves existed at the time these other NOCs were founded.

In summary, after imposing a state monopoly on the upstream petroleum sector, the Brazilian state charged its newly created NOC, Petrobras, with maintaining the pre-existing strategy to supply petroleum to the national economy by way of imports (Smith 1976). To accomplish this goal, the state charged Petrobras with financial and
operational autonomy intended to maximize its efficiency and to minimize its politicization.\footnote{Author interview with Gregório da Cruz Araújo: Rio de Janeiro, October 2011.} Concurrently, Petrobras embarked on a strategy to explore for new fields within the national territory as it greatly expanded its domestic refining capacity. Structural conditions in the international market that were keeping international petroleum prices low cooperated with this strategy. Throughout the 1950s and 1960s, Petrobras imported crude oil from the Middle East, refined it and worked to guarantee retail supplies of derivatives to all regions of Brazil (Langevin 2010). This strategy served multiple domestic purposes. It saved Brazil the cost of importing refined products, it expanded domestic technical capabilities, and it provided a domestic labor market in the refineries (Piquet and Serra 2007).

Yet, almost immediately after its establishment Petrobras became a constant target of national politics (Raposo 1997; Velasco Jr. 2005a). In most cases, incumbent governments sided with Petrobras, which angered nationalists. This debate played out repeatedly in ensuing decades.\footnote{Author interview with Lena Lavinas, Economist, Instituto de Economia, Universidade Federal do Rio de Janeiro (UFRJ): Rio de Janeiro, June 2011. “Faz muito politização na historia do Petrobras.”} In nearly every case of debate observed prior to the 1980s, incumbent government interests aligned with the commercial interests of Petrobras. In terms of intrastate relations, this evidence demonstrates that Petrobras maintained the necessary operational autonomy to avoid becoming a mere policy instrument. This fact places Petrobras in sharp contrast to the historical trajectories of NOC counterparts such as PDVSA, Pemex, and YPF, all of which became highly politicized.
Bureaucratic authoritarianism as a mechanism of reproduction:

By the early-1960s, a national hydrocarbon industry had been established in Brazil to produce for a growing domestic market. Meanwhile, separate from the operational accomplishments of Petrobras, national politics became increasingly charged by nationalist sentiment with focus on the hydrocarbon sector. This involved rising calls for further nationalization and state control of the sector by Petrobras (Raposo 1997). Further mounting economic instability and a more polarized political setting brought about societal unrest. Under these highly politicized conditions, a conservative military coup took place in 1964.

The 1964 coup brought popular mobilization to an abrupt halt. Once in power, the military’s main priority was to promote centralization and economic growth through a more orthodox development strategy (Cardoso 2003). Historically, Brazil has had a federalist system of government with the subnational states afforded considerable powers of governance in its Constitutions. However, the Estado Novo (1930-45) and the military dictatorship (1964-1985) were two extended periods of centralization in Brazil. In the years after it took power in 1964, the military regime centralized fiscal decision-making authority and reduced the influence of subnational governments on spending decisions (Varsano 1996). Major tax reforms intended to raise public revenues were also implemented. The new military government was divided between nationalists and others

111 Scholars of contemporary Brazil have increasingly recognized that federalism merits further theoretical and empirical investigation. Hagopian (1996) explores the period of the military dictatorship and the state-based organization of elites that occurred during this time period. Abrucio (1998) explains the power of state governors to influence contemporary Brazilian national politics. Samuels (2003) adds to this research agenda by linking the recognized importance of Brazilian federalism to an understanding of how ambition shapes Brazilian congressional politics and executive-legislative relations. Samuels (2003) claims that the link between ambition and federalism is a necessary ingredient to explaining important aspects of policy and process in Brazil.
aligned with foreign capitalists (Raposo 1997). In sociopolitical terms, the military also pursued initiatives aimed at greater levels of popular sector incorporation. Attempts were made to peacefully incorporate peasants into the political system. However, in the absence of agrarian reform, such initiatives failed to secure a peasant constituency. Meanwhile, in resistance to the dictatorship, labor gradually developed into an even stronger and more independent interest group.\(^{112}\) In summary, as the 1960s unfolded in Brazil, there remained no resistance to rapid expansion of the state sector. State expansion lasted throughout the “economic miracle” (1968-1973).

The military made swift political changes at Petrobras. Shortly after the coup, acting President Mazzilli (1964) appointed General Ademar de Queiros as Petrobras president and charged him with the “total cleansing of extremist elements” from the NOC (Smith 1976). The army moved quickly to neutralize the resistance and strikes from Petrobras employees and sought to rid Petrobras of all internal politics and employee efforts at collective bargaining and independence to thus maintain the NOC’s role as a policy instrument (Smith 1976). On the operational side, liberalization permitting a limited degree of foreign investment in the hydrocarbon sector took place. However, the Petrobras monopoly was preserved. Above all, the military declared the mission of Petrobras to find the oil demanded by the economy in such a way that the expenditures of foreign currency would not increase (Raposo 1997). The military affirmed its commitment to Petrobras as a mechanism of industrialization. The military viewed Petrobras further as a part of its broader strategy for Brazil to reach economic

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\(^{112}\) As pointed out by Hunter (2010), resistance was the key force behind the creation of the Partido dos Trabalhadores (PT) in 1980. With the end of the military regime, labor came to be an important political force to the continued expansion of the state. Labor played a central role in the constituent assembly of 1987-1988. This assembly produced the Constitution of 1988, complete with an expanded social policy mandate and expanded forms of taxation.
independence and great power status (Smith 1976). Under these conditions, Petrobras demonstrated its operational autonomy in a number of ways, especially relative to its regional counterparts. Petrobras responded to the standard NOC incentives offered to it by the government (De Oliveira 2012: 548). In the 1960s, Petrobras was placed under the Ministry of Mines and Energy (MME), but its budget was not put under the MME’s control (Randall 1993: 23). To control market risks, Petrobras focused on downstream development, in particular, the construction of refineries.113 As a result, Brazil’s foreign currency expenditures stabilized, even though domestic consumption of hydrocarbon products was on the rise. Once refining infrastructure was in place, Petrobras shifted its attention to upstream exploration throughout the Brazilian territory and beyond (de Oliveira 2012).

From the 1960s onwards, Petrobras underwent further institutional change. This included a major operational expansion. Concerned with keeping pace with IOCs in terms of upstream technology, Petrobras reoriented its investment strategy toward the upstream. Over the course of the 1970s, upstream investment by Petrobras grew from 25 percent to 50 percent of its financial budget. In 1972, Petrobras created a foreign subsidiary that it named BrasPetro (Dávila 2010). The mission of BrasPetro was to discover and produce hydrocarbons in territories beyond Brazil.114 This outward

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113 In 1968, Geisel agreed to be appointed president of Petrobras, but on the condition that the MME not interfere in his management of the company. With upstream security of supply the widely recognized long-term goal, Geisel shifted Petrobras’ strategy to offshore exploration and development. Geisel also steered Petrobras’ investments to the downstream, to take advantage of falling international petroleum prices that were passed on to domestic consumers. BNDES financed expansion of the downstream segment of the sector. Under Geisel, expansion of refining and marketing improved the legitimacy and image of Petrobras among the Brazilian people (Raposo 1997, Smith 1976). “President Geisel’s ties to the military were influential to the NOC’s development and funding” (Author interview with Queiroz Pinto Jr.: Rio de Janeiro, October 2011.

114 BrasPetro established a presence in Angola, Argentina, Bolivia, Colombia, Ecuador, and Equatorial Guinea (Dávila 2010).
expansion strategy demonstrates the operational independence of Petrobras as an NOC, because this function did not fall within its mission to promote self-sufficiency in domestic oil production. However, the outward expansion strategy pursued through *BrasPetro* indirectly served an important purpose. Through *BrasPetro’s* association with IOCs in foreign countries, Petrobras acquired important technological capabilities that it was able to apply to the domestic frontier back in Brazil (Lederman and Maloney 2007: 8-9). Significantly, Petrobras’ successful overseas strategy marks the first sign of distance between the preferences of the Brazilian government and those of Petrobras.

Petrobras carried out a multi-faceted strategy to minimize financial and technological risks throughout the process of operational expansion. First, the NOC initially relied heavily on technological cooperation with other companies while eventually building its own in-house technological capabilities. Petrobras took advantage of its national monopoly privilege to encourage foreign suppliers to share the risks and benefits of the development of new technologies (Lederman and Maloney 2007: 8-9). It did so by creating incentives for its offshore suppliers of services and equipment to innovate and share their new technologies. Groups of Brazilian and international engineering companies were structured by Petrobras to develop the platforms for the Brazilian offshore, and the learning obtained from these innovations was consolidated in the *Centro de Pesquisas e Desenvolvimento Leopoldo Américo Miguez de Mello*

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115 Author interview with Gregório da Cruz Araújo: Rio de Janeiro, October 2011.
116 Author interview with Edmilson Moutinho dos Santos, Professor, Instituto de Electrotécnica e Energia, Universidad de São Paulo: São Paulo, June 2011.
(CENPES), an engineering research hub located in Rio de Janeiro (Maloney 2007: 145).\footnote{117 Author interview with Licinio Velasco Jr., Gerente do Departamento de Insumos Básicos do Banco Nacional de Desenvolvimento Econômico e Social (BNDES): Rio de Janeiro, April 2011.}

Second, Petrobras employees were trained abroad and foreign experts were hired to provide technical advice and instruction (De Oliveira 2012). Brazilian universities were encouraged to offer graduate degrees in geology and chemical engineering and thus a pipeline of qualified students for Petrobras. As further evidence of its operational and human capital development, a legacy was established for top managers to be drawn from the military, which instilled a disciplined culture in Petrobras.\footnote{118 The strong influence of the military in the creation of SOEs had dated back to the Vargas period. Until 1979, with few exceptions, each president of Petrobras was chosen from among the ranks of the military. See list of Petrobras presidents and their curricula at www.coopetroleo.com.br} Third, and finally, Petrobas “learned by doing” and as a result, it advanced technologically (Maloney 2007: 149-150). Petrobras was fortunate to experiment with offshore development in the gentle topography of the Campos Basin, which made it easier for the NOC to move progressively along a technological learning curve, from shallow into deeper waters (Furtado and de Freitas 2000). As a result, Petrobras introduced several technological innovations that enabled it to discover ever larger reservoirs deeper offshore. Over time, the CENPES and the Campos and Santos Basins have turned Brazil into a technology hub for offshore petroleum production.\footnote{119 Author interview with Eduardo de Vasconcelos Raposo, Professor e Pesquisador do Departamento de Ciências Sociais da Pontificia Universidade Católica do Rio de Janeiro: Rio de Janeiro, February-November 2011.}

In 1973, Brazil’s private sector still did not have the capacity to play an important role in meeting massive needs for infrastructure and technology (Baer 2008). When in 1973 geopolitical turmoil came to the Middle East, international petroleum prices...
immediately skyrocketed. At the time, Brazil’s petroleum import dependence had reached 80 percent of the total national oil demand. From 1973 to 1974, Brazil’s petroleum import bill rose from $5.2 billion to $12.6 billion while, in parallel, international sugar prices collapsed, placing immense constraints on Brazil’s economy. In the midst of mounting macroeconomic challenges, the state’s role in development again took center stage in Brazil, reinforced by the newly sworn-in government of Ernesto Geisel (1974-1979). Geisel saw energy dependence as a national security concern, which reflected his military background (Hira and de Oliveira 2009). Geisel carried forward with the ambitious Second National Development Plan of 1974, and borrowed from international financial markets to meet Brazil’s import expenses (Roett 1999).

Miraculously, also in 1974, Petrobras made its largest discovery of offshore reserves in the Campos Basin off the coast of Rio de Janeiro. This breakthrough gave President Geisel more financial flexibility to implement policies and programs to shore up the domestic economy (Langevin 2010). This epoch in the history of Brazil’s hydrocarbon sector development illustrates how the 1970s Middle East oil shocks served to strengthen Brazil’s defensive drive for self-sufficiency in national energy production. Under these circumstances, the Brazilian government extended ISI deeply into the energy sectors, by way of oil import substitution. With the interests of the state and the NOC aligned at the time, Petrobras was the key policy instrument deployed by the government to carry out this comprehensive energy policy. According to Sennes and

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120 Author interview with Alexander Zhebit, Ex-diplomat, Adjunct Professor of International Relations, UFRJ, and Assistant Professor of International Relations, Diplomatic Academy of the Ministry of Foreign Affairs of Russia: Rio de Janeiro, April 2011.
121 Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.
Narciso (2009), this concerted effort had a strategic character that surpassed economic and financial motivations. Two national objectives were behind both aspects of this strategy: sustaining economic growth based on strong industrialization and reducing dependence on imported sources of energy.

The intersection of the Middle East oil shocks with the discovery of offshore reserves in the Campos Basin in 1974 presented Petrobras with a new set of challenges and opportunities. Petrobras was in need of financial resources required to engage its technological capabilities. At the same time, the NOC needed to protect itself from what had by then become erratic government macroeconomic policy, including hyperinflation (Bevilaqua and Werneck 1998). In fact, the interests of Petrobras began to diverge from those of the government shortly after the NOC’s discovery of offshore oil reserves in the Campos Basin in the 1970s.\textsuperscript{122} The government wanted to accelerate the development of petroleum production in the Campos Basin, but Petrobras, operating within its established structure of incentives, was already committed to very large investments in the downstream (Raposo 1997). Arguably, the Middle East oil crises of the 1970s placed further daylight between the interests of the Brazilian state and Petrobras. From the government’s perspective, the cost of petroleum imports reemerged as a major constraint to industrialization.\textsuperscript{123} The threat of macroeconomic crisis as a result of a skyrocketing

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\textsuperscript{122} Author interview with Amaury de Souza, Senior Partner of Techne and MCM Associated Consultants, and Professr do Instituto Universitário de Pesquisas do Rio de Janeiro (IUPERJ): Rio de Janeiro, October 2011.
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\textsuperscript{123} As noted above, and per author interview with Eduardo Raposo (June 2011), upstream efforts by Petrobras involved both domestic and international expansion. This otherwise logical approach to upstream expansion had its economic limits. While it had been more cost efficient for Petrobras to meet national demand for petroleum from foreign locales, with the sudden onset of the oil price shocks of the 1970s the approach made less economic sense. Industrialization was steadily increasing the rate of oil consumption in Brazil. By the 1970s, Brazil was still importing nearly 80 percent of its oil, which meant a burgeoning import bill for the country during a period of price shocks in the international petroleum
\end{flushleft}
oil import bill posed a challenge to the political legitimacy of the military government. For reasons to do with the Campos Basin discoveries and spiking international oil prices, the Geisel government adopted a new strategy to open the Brazilian offshore to the IOCs on a fee basis, in spite of Petrobras’ opposition to such a policy. The goal of these reforms was to encourage IOC investment and especially to change the incentives motivating Petrobras.

Geisel’s strategy to open the hydrocarbon sector to IOCs proved to be a partial success. Petrobras took advantage of its close links to the government at that time to subordinate the IOCs to its lead. Indeed, the government allowed Petrobras to offer the high-risk offshore oil blocks to the IOCs and to keep the lower-risk offshore blocks for its own exploration. Petrobras had become highly autonomous through its huge informational advantage over the government. Petrobras was able to control which acreage was available to the IOCs and the terms under which the most important fields would be developed. Moreover, Petrobras’s national monopoly guaranteed that any domestic oil produced by the IOCs, in spite of its cost, would find its way to the Petrobras refineries. Thus, as Petrobras developed the ability to discover and produce petroleum, it reaffirmed its monopoly position in the market. Altogether, these conditions proved unattractive to the IOCs. But the Geisel government had neither the information nor the political legitimacy to reign in Petrobras (Raposo 1997). Petrobras had become a state within a state (De Oliveira 2012: 548). While the Brazilian offshore

market. Meanwhile, Petrobras’ inattention to domestic production meant that crude oil imports continued to feed domestic consumption.

124 Author interview with Amaury de Souza: Rio de Janeiro, October 2011.
125 Author interview with Edmilson Moutinho dos Santos: São Paulo, June 2011.
was attractive to the IOCs, the incentives offered by the government were not. For that reason, the IOCs limited their investments.

In summary, for Brazil, the 1970s were a period of shifting economic policy brought on by international factors. By the end of the 1970s, the international outlook had turned very unfavorable, requiring macroeconomic policy adjustment. Macroeconomic imperatives compelled leadership to shift its policies from promotion of growth to management of inflation and the external balance (Bevilaqua and Werneck 1998). No longer committed to growth through ISI, the Geisel government’s main concern became stabilization through control of inflation and management of the foreign exchange crisis. Further expansion of state enterprise was inconsistent with the objective of stabilization. Given that SOEs like Petrobras were responsible for a considerable portion of domestic investment and consumption, it would be almost impossible to stabilize the economy without some form of control over their expenditures and without eliminating or at least reducing their deficits (Bevilaqua and Werneck 1998).

However, the story of Petrobras is unique. During the 1970s, the economic and political significance of Petrobras to Brazil’s broader development became solidified, accompanied by the establishment of close ties between the military leadership and the top management of Petrobras itself (Surrey 1987). During the post-1973 period of acute foreign exchange shortage, the government and Petrobras had parallel if not identical interests with regard to oil import substitution. The government saw in the technical and management expertise of Petrobras an effective means to pursue import substitution in energy, most especially the hydrocarbon sector (Queiroz Pinto Junior 2007). From the expansion opportunities this provided, Petrobras derived both commercial advantage and

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126 Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.
prestige stemming from its powerful position in the economy (Surrey 1987). Leading up to 1985, Petrobras invested and achieved its goal to produce 500,000 bpd. At the same time, government anxiety surrounding the international petroleum market diminished after the crude oil price collapse of 1986. However, in contrast to the efforts by Geisel during the 1970s, the 1990s would usher in changes in national development strategy with implications for hydrocarbon sector SOC.

*Permissive (exogenous) conditions (early-1980s):*

As noted above, it was a series of events in the international economy in the 1970s that signaled a policy shift away from the SOE model in Brazil. This was not due to a shift in prevailing ideology about the role of the state in development (Castelar Pinheiro 2011). Apart from a continued commitment to developmentalism, macroeconomic necessity ushered in an alternative approach to development in the 1970s. When pressures for fiscal decentralization first emerged in the mid-1970s, the military was still powerful enough to put down such pressures initiated by governors and mayors. However, as part of the process of controlled democratization that began under President Ernesto Geisel (1974-79), the military used decentralization as a means to bolster its conservative allies in Congress (Falleti 2010a). The military regime counted on conservative local power

127 Similar to this example where the military promoted gradual fiscal decentralization to shore up its political base, Falleti (2010) shows that health reforms introduced in Brazil’s 1988 constitution and implemented throughout the 1990s were the result of gradual changes that preceded democratization. Actors on the periphery of the existing system were able to introduce incremental changes through processes of what Mahoney and Thelen (2010) conceptualize as “layering.” The crucial opening for institutional change and policy reform was provided by the military, which in the 1970s introduced health care reforms that were designed to solidify authoritarian rule by extending the state’s presence to the countryside. Likewise, flexibilization of the hydrocarbon sector demonstrates a pattern of institutional layering under the military regime (1964-1985).
brokers to support the regime in exchange for the provision of increased resources to subnational governments (Ames 1987: 140-210). As the transition to democracy began, the military regime favored limited decentralization (Falleti 2010a). The military also favored conditional transfers that they could politically control over automatic resource transfers (Ames 1987: 140-210). This also marks a moment when the idea of privatization began to occupy government discourse, albeit still without major practical consequence (Baer and Villela 1994: 1-20).

Brazil was susceptible to further unexpected shifts in the international economy in 1979. Both the Brazilian government and Petrobras had taken loans made by foreign commercial banks with recycled “petrodollars.” However, these loans proved to be nothing more than a temporary stopgap with more permanent negative consequences for borrowers like Brazil. Once the United States and European governments adopted marked interest rate increases in 1979, constraints suddenly arose in financial markets. The rate increases “confronted debtor countries with a sharp rise in the cost of debt servicing and a steep drop in demand for commodity exports” (Kaufman 1989). This event marks the first permissive condition in my critical juncture framework.

In 1981, privatization was officially placed on the economic policy agenda, when by decree President João Figuereido (military) created the Comissão Especial de Desestatização and set “rules for the transfer, transformation, and divestiture of companies controlled by the federal government.” Shortly thereafter, the 1982 debt crisis was the mechanism that brought the idea of wide scale developmentalism to an end.

128 At the time, Brazil had maintained overvalued exchange rates, which simultaneously discouraged exports and facilitated external borrowing by state enterprises, including Petrobras.
129 The main objectives of the Comissão were to limit the creation of new SOEs, to transfer inefficient SOEs to the private sector, and to strengthen the private sector.
and elevated privatization on the policymaking agenda (Castelar Pinheiro and Giambiagi 1999). Severe macroeconomic crisis further reduced the degrees of freedom for state intervention and forced the government to adopt more market-oriented policies (Kaufman 1989). Moreover, a sudden focus on austerity increased the need to control spending at a time when Petrobras needed massive investment to modernize and expand output capacity (Lal and Maxfield 1993: 27-77).

By the mid-1980s, with public support for the military in decline, Petrobras made two major offshore discoveries in the Campos Basin. These discoveries boosted the public legitimacy of Petrobras.130 As the main political guardian of Petrobras, the military did not fare well in a faltering economy (Fernandes 1985). Brazil was trapped between unsustainable debt payments and politically dangerous macroeconomic choices. In response, intent on conquering inflation, President José Sarney (1985-1990) introduced a series of heterodox stabilization plans (Bevilaqua and Werneck 1998). Sarney chose heterodox accommodation through price and wage freezes to break the cycle of inflation.131 The Cruzado Plan was introduced in February 1986.132 From its perspective, political response to the macroeconomic shocks underscored the need for Petrobras to exert greater control over its own cash flow. In response, Petrobras launched an

130 Author interview with Amaury de Souza: Rio de Janeiro, October 2011.
131 The justification for the heterodox program was that prior price indexation was the cause of inflationary problems.
132 The Cruzado Plan did not consider any explicit fiscal or monetary targets. The cruzeiro was replaced by the cruzado, which was fixed to the dollar. The economy was aggressively monetized to avoid exceptionally high interest rates. An automatic mechanism for wage adjustment was to be put into effect every time accumulated inflation exceeded 20 percent. External conditions initially favored the Cruzado Plan in three ways: (1) world interest rates declined and reduced the debt service burden; (2) world oil prices went into decline; (3) the drop of the value of the dollar reduced the cost of dollar-denominated debt and imports. The results of the Cruzado Plan were mixed. Inflation rebounded, but this was short-lived. Industrial production increased, however, mostly as a result of the lack of fiscal control and credit control, inflation rebounded to 44 percent. The structure of the CPI was manipulated five times to conceal price increases in the year before November 1986. Credibility on the program dwindled. In September 1986, the fixed nominal exchange rate policy was abandoned. Still, policymakers held off on making further adjustments until after the November election.
aggressive offshore innovation program to acquire the technological expertise needed to
exploit the new offshore discoveries. Heterodoxy proved ineffective in taming inflation
while it had detrimental effects on SOEs including Petrobras (Rego 1986).\footnote{Concerning policy toward the hydrocarbon sector, the Ministry of Finance took control over pricing of crude oil and hydrocarbon derivatives as part of broader heterodoxy. Over time, this pricing policy radically changed the pattern of fuel consumption in the country. During the 1980s, gasoline sales plummeted, and diesel along with ethanol soared. Dependency on oil imports was still a major government concern, and Petrobras investments in the upstream were considered crucial to reducing oil imports. Petrobras was able to shield its cash flow from the pricing arrangement introduced by the Ministry of Finance until 1983 when inflation began to spiral out of control. The government continued to use its control over the prices of oil products to mitigate inflation, which directly impacted the operating budget of Petrobras.} This period
of debt crisis and hyperinflation marks the second permissive condition in my critical
juncture framework.

Not surprisingly, once the news had spread of the new offshore discoveries
Brazil’s nationalists sought to reaffirm the Petrobras oil monopoly (Campos, Tolmasquim
and Alveal 2006). The issue of hydrocarbon nationalization was dealt with in the
renewed context of democracy. Evidence of the Sarney government’s bargaining power
in dealing with international creditors, and of its confidence in Petrobras is observable in
events of 1988. In the Constitution of 1988, Petrobras was granted a legal monopoly
position in all activities related to oil and gas throughout the entire national territory
(Palacios 2002).\footnote{The 1988 Constitution consolidated the Brazilian state monopoly over petroleum exploration and production, as well as refinery, import, export and transportation activities (Sennes and Narciso 2009).} But even the legalization of complete state ownership and monopoly
control in the Constitution did not put an end to the political debate over what ought to be
the proper SOC for Brazil’s hydrocarbon sector.\footnote{Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.} Brazil’s legalization of a nationalized
monopoly SOC for hydrocarbons defied liberalization trends in regional and global
policy being imposed at the time by the IMF and the World Bank. As it would turn out,
less than ten years later, international market forces prevailed, and Brazil placed liberalization of the petroleum sector on the policy reform agenda (Palacios 2002).

As pointed out above in the case of Petrobras, state policies in favor of deregulation and privatization of SOEs proved to be more rhetorical than actual during the 1980s. Meanwhile, global economic recession during the 1980s ushered in a collapse in international petroleum prices coupled with a period of soft demand and surplus OPEC capacity that led IOCs to steer clear of investment in Brazil’s oil market. IOCs had better investment alternatives elsewhere at a time when economic and political risks were still perceived as being relatively great in Brazil (Lewis 2004). The plunge in international oil prices marks the third permissive condition in my critical juncture framework.

The Brazilian state faced a serious fiscal crisis in the 1980s, but it had a much better institutional and extractive capacity than did Argentina and Mexico (Luporini 2010). By the 1980s, Brazil had established a highly trained federal tax administration and had expanded its tax base significantly as a result of the tax reforms implemented by the military regime (Afonso and Almeida 2011; Melo 2010; Pereira and Souza 2010). The return to democracy brought important changes to the fiscal landscape, particularly in terms of structures of fiscal federalism in Brazil (Ter-Minassian 2012, 2013). With the transition to democracy in 1985, Brazil undertook further institutional change embodied in the Constitution of 1988 (Alston et al. 2006; Martinez-Lara 1996; Montero 2014). Notably, the 1988 Constitution mandated the fiscal decentralization through increases in the states’ shares of total tax revenue.

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136 Most of the SOEs that were privatized were sold off by BNDES in order to raise its liquidity.  
137 Author interview with Amaury de Souza: Rio de Janeiro, October 2011.
In summary, during the early-1980s, privatization lacked a political commitment, and it was not yet a priority for the Brazilian state (Castelar Pinheiro 2011; Velasco Jr. 1997, 1997a). The accumulation of years of rhetoric and efforts produced only modest results, with a marginal effect on the state’s heavy presence in the economy (Baer and Villela 1994). Only those SOEs that were obvious failures were privatized. As further evidence of the lack of commitment to privatization, the 1988 Constitution was clearly nationalist in its intent (Martínez-Lara 1996). It established public monopolies in hydrocarbons and telecommunications, as it set up barriers to foreign ownership in electricity and mining. Finally, as further evidence, in 1989, Congress rejected Provisional Measure 26, which would have made all SOEs subject to privatization, except for those that could not be sold owing to restrictions (Castelar Pinheiro and Giambiagi 1999). However, ultimately, it was continuous deterioration of the economy and in particular the fiscal crisis of the 1980s that raised the ante for Brazil in terms of debt and hyperinflation. Crisis along with plunging international petroleum prices soon fueled support for privatization in the ensuing decade of the 1990s.

Productive Conditions and Outcome (1980s-1990s):

The emergence of the three permissive conditions pointed out above precipitated the erosion of the bureaucratic authoritarian regime in Brazil, i.e. the mechanism of reproduction in my critical juncture framework. The erosion of this mechanism of reproduction marks the beginning of the neoliberal critical juncture. The replacement of

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139 Author interview with Licinio Velasco Jr.: Rio de Janeiro, April 2011.
bureaucratic authoritarianism with democratization has been put forth to explain the shift in thinking about SOE privatization in Brazil beginning in the 1990s (Velasco Jr. undated). This shift coincided with the gradual transition from military to civilian rule, along with the end of the Cold War. Following this line of reasoning, in contrast to the negotiated transition that allowed the rise of Sarney, the election of Fernando Collor de Mello (PRN) (1990-1992) by popular vote in 1989 was important in legitimizing this change of direction in development strategy (Velasco Jr. 2005, 2005a). The reintroduction of democracy breathed new life into political institutions that had lain dormant since the 1930 Revolution. Democracy legitimized changes in development strategy and in policymaking (Alston et al. 2006). These changes, including the election of Collor, were met by the first and second of four productive conditions in Brazil: the globalization of world production through the reintroduction and acceleration of market economics; and the general rise of neoliberal ideology and the worldwide proliferation of this view via the influence of IFIs. The democratically elected Collor government introduced privatization and liberalization as key elements of its economic policies.  

The 1980s debt crisis impacted Latin American countries differently. Within a couple of years of the interest rate hike, like its neighbors, Brazil found itself cut off from international lending following Mexico’s debt default in 1982. Brazil was badly affected by the 1980s debt crisis, but not as severely as were Argentina and Mexico (Kaufman 1989). This is a notable distinction concerning Brazil and the third productive condition

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140 Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.
141 In accordance with my critical juncture framework, economic crisis brought an end to an old structure and replaced it with a new one. In Brazil, this change occurred in the midst of Brazil’s democratic transition after a two-decade-long military regime (1964-1985) (Kaufman and Nelson 2004). Policy reform became possible when the political opportunity structure changed in Brazil.
in my framework, i.e. the extent of crisis and hyperinflation. Financial constraints prompted by the sudden and tremendous weight of debt servicing forced severe economic austerity and structural adjustment on Brazil throughout the 1980s (Lal and Maxfield 1993: 27-77). However, as Kaufman (1989) points out, “in contrast to its neighbors, Brazil’s state-led development model had produced a more diversified industrial economy with a strong export sector and considerably less vulnerability to capital flight. This allowed policy makers to sustain a relatively strong posture toward the IMF and private creditors.” Brazil’s relative strength toward the IMF in terms of a relatively limited number of disbursements is illustrated below in FIGURE 10:

Figure 10 – Transactions between Brazil and IMF (1984-2007)

Brazil’s privatization program of the 1990s is also set apart from Argentina and Brazil by its slow speed and measured extent (Kingstone 2004). After major economic adjustment and the reintroduction of democracy, Brazil’s political spotlight shone once again on privatization in the early-1990s. In a major turn of events, less than two years
after the ratification of the 1988 Constitution, the Collor administration launched the Programa Nacional de Desestatizarção (PND), which took major steps to enlarge the scope of privatization (Castelar Pinheiro 2011). This about-face in policy resulted from further crunches in domestic and international political economy.\textsuperscript{142} The PND was launched simultaneously with trade liberalization and the wide scale deregulation of the domestic economy, together with the ending of public monopolies in sectors such as coffee and sugar (Alston et al. 2010). But untamable inflation and stagnant growth were detractors to domestic or foreign investment, which ostensibly limited the scope of privatization. And while the political battle over Petrobras’ monopoly began with the PND, it was tabled when Congress impeached Collor in 1991 (Roett 1999).

By the early-1990s, Brazil had shifted its development model from one that prioritized capital accumulation to one focused more on efficiency and productivity growth (Alston et al. 2010). In his first term, Fernando Henrique Cardoso (PSDB) (1995-2003) quickly set out to bring resolution to the economic situation through market liberalization and privatization policies (Power 2010). To sustain price stability, the government had to move away from monetary policy, and toward fiscal discipline (Luporini 2010). Previously, a lack of fiscal discipline had limited the government’s ability to carry out the high levels of investment necessary to increase supply at the pace required to bring about a recovery in economic growth. Cardoso was convinced that the state had exhausted its capacity to lead the process of accumulation, since it was neither capable of generating a fiscal surplus nor of borrowing abroad. Consequently, Cardoso’s position toward SOEs also evolved; as instruments of economic policy, SOEs were no

\textsuperscript{142} Under Collor, the PND was a reaction to worsening SOE performance and macroeconomic necessities. The PND symbolized a reorientation of Brazil’s economic development strategy.
longer considered effective policy due to their tendency to accumulate capital at the expense of efficiency (Castelar Pinheiro 2011; Tavares de Almeida 2012). Moreover, for fiscal reasons, neoliberal economic policy placed limits on SOE access to domestic and external financing, calling further into question their continued purpose.\footnote{Author interview with Licinio Velasco Jr.: Rio de Janeiro, April 2011.}

To bring inflation under control, the Cardoso government upheld the extensive *Plano Real* of 1994 instituted by his predecessor, Itamar Franco. This stabilization program went hand-in-hand with a targeted privatization scheme that involved Petrobras (Kingstone 2004; Lewis 2004). Packaged as an alternative to monetary policy, *Plano Real* emphasized fiscal discipline, a floating exchange rate, and a reduction in interest rates in conjunction with liberalization and privatization (Luporini 2010). *Plano Real* sought to unravel financial stalemate between the balance of payments and the fiscal accounts. Liberalization was intended to reduce subsidies and to make the economy operate more efficiently, while privatization was intended to attract foreign investors, to replenish the capital account, and also to improve the government’s ability to raise future tax revenues.

The success of the *Plano Real* in achieving stabilization gave the Cardoso government the political leverage it needed to move a number of constitutional amendments through Congress, so as to extend privatization.\footnote{Per Samuels (2003), the *Plano Real* brought inflation to zero and therefore represented an exogenous shock that undermined the states’ ability to resist the federal executive’s preferences. Although the institutions of federalism clearly served as important constraints and governors played an important role, the national executive, throughout most of the decade, managed to get its agenda implemented by recentralizing the political game. This included passing legislation that adversely affected state governors (including the Fiscal Responsibility Law of 2000) and introducing measures that have led to a political recentralization of the country.} Such extension was to the gas and telecom sectors, as well as to electricity and mining. To bolster its case, the
government was able to point to the success of recent cases of privatization carried out between 1991 and 1994. In addition, the state (subnational) governments saw in privatization an important source of funding, which would allow them to reduce their debt and, in some cases, expand spending.\textsuperscript{145} Moreover, stability itself had returned to Brazil, and the shift in investor perceptions toward risk and growth potential of the Brazilian market was reflected in FDI inflows. These optimistic changes helped to increase the potential value of SOEs, making privatization more interesting both for the public sector and for private investors.\textsuperscript{146}

\textit{Hydrocarbon sector development policy reforms of the 1990s:}

The erosion of bureaucratic authoritarianism was followed by major economic adjustment and the reintroduction of democracy. The implications of the neoliberal critical juncture are observed in the reorientation of state-society relations to the constraints of market globalization. Following this broader trend, Brazil’s political spotlight shone once again on hydrocarbon sector development policy in the 1990s. As noted by Corrales (2002), as the 1990s unfolded, national politics in Brazil became less fragmented such that a ruling coalition emerged, leading to a greater degree of reform

\textsuperscript{145} Author interview with Amaury de Souza: Rio de Janeiro, October 2011.

\textsuperscript{146} Financially, through the privatizations it carried out increasingly over the 1990s, Brazil attracted sizable volumes of FDI. This FDI helped to finance the country’s high current-account deficit. Over the period 1997-2000, the ratio between FDI inflows associated with privatization and the current-account deficit averaged almost 25 percent. Privatization was also instrumental in averting an explosion of public debt, in spite of the growing fiscal deficit. Barbosa de Carvalho (2010) shows that as percentage of GDP public debt was 8.4 percent lower in December 1999 thanks to the predominant use of privatization. By 1999-2000, once fiscal adjustment and exchange rate devaluation had strengthened the Plano Real, the priority ascribed to privatization declined. The primary fiscal balance turned from a deficit of 0.9 percent of GDP in 1997 into a surplus of 3.2 percent of GDP in 1999 (3.5 percent of GDP in 2000). Meanwhile, the current account deficit decreased, while inflows of FDI not related to privatization increased, which reduced the urgency of privatization as a means to finance the external deficit. As the urgency of debt repayment lessened, so did the urgency to privatize SOEs to repay debt.
sustainability. Common ground found among a diversity of interests allowed for a strategic coalition between those who believed the state should permanently exit commercial activities and those who saw privatization as a necessary evil (Hagopian et al. 2009; Tavares de Almeida 2012). Collor failed in his attempt to tie privatization to stabilization. But through the PND, a new coalition with a commitment to structural reform was organized.\(^{147}\) Even Collor’s replacement, Franco, utilized the PND to carry out structural reforms.

The battle over the SOC of Petrobras took center stage when after being elected in 1994, Cardoso entered office in 1995. Shortly after taking office, Cardoso took wise advantage of his political capital to operate within the newly reintroduced democratic institutional framework and advance hydrocarbon sector reforms. Constitutional amendments were put forth to eliminate restrictions on foreign capital investment and to liberalize state monopolies.\(^{148}\) For the hydrocarbon sector, the intent was to allow participation of national and international capital private participation in the upstream and downstream segments of the sector. Cardoso sought to end the Petrobras monopoly over hydrocarbon resources.\(^{149}\) The government would retain the right to allocate future concessions for exploration and production.

\(^{147}\) Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.
\(^{148}\) As outlined in OECD (2008: 35), under Cardoso, “State reform in Brazil was twofold: there were reforms in public administration, and economic reforms involving structural transformation. These measures complemented each other and had to be preceded by constitutional amendments which would be followed by the adoption of corresponding legislation and administrative decisions by the Executive. The most notable transformations were: first, elimination of certain restrictions on foreign capital (Constitutional Amendments 6 and 7, from 1995; second, introduction of flexibility in state monopolies, which modified key aspects of the Brazilian economic order (Constitutional Amendments 5, 8 and 9, from 1995). The third transformation was the introduction of the framework for privatization, through Ordinary Law 8 031 from 1990; this was later replaced by Law 9 491 from 1997, establishing the National Programme for Privatisation.”
\(^{149}\) The Cardoso government abandoned protectionist policies for hydrocarbons that had essentially been followed since the 1930s. It removed the Petrobras oil monopoly from the 1988 Constitution, and it invited IOCs to participate in Brazil’s hydrocarbon industry. Regulations were also changed to give transparency
Once the Cardoso administration introduced reform legislation a diversity of competing interests engaged in intense debate over the future model for national hydrocarbon sector development (Power 2010; Tavares de Almeida 2012; Velasco Jr. 2005, 2005a). Corrales (2002) notes that Cardoso’s PSDB-led coalition gave this reform negotiation greater credibility. More disciplined and autonomous, the PSDB put forth a more coherent program and reform strategy (Bresser Pereira 2012; Samuels and Schugart 2010: 194). “Through a number of concessions, Cardoso put together a governing coalition comprised of a relatively stronger party (PSDB) and other parties of varying electoral strength…” (Corrales 2002: 272; Treisman 2003: 104). To accommodate political pressures from nationalists and from the sindicatos, the PSDB-led coalition abandoned the idea of fully privatizing Petrobras but moved forward with petroleum market liberalization. Velasco (1997a, 1997b) and Feigenbaum et al. (1999) highlight the underlying tensions in the coalition that has carried out the privatization process in Brazil.

In 1997, against Cardoso’s wishes, Congress rejected full privatization of Petrobras, but partial privatization did take place. Oil Law 9478 was enacted in June 1997, officially ending the 40-year complete public monopoly held by Petrobras (Sennes and Narciso 2009). The 1997 Oil Law maintained a partial monopoly for Petrobras while it permitted concessions to private domestic and foreign companies to own, produce, refine, and distribute oil. This policy became known as a “flexibilization” of the existing

\footnote{Reconfirmed in author interview with Roberto di Cillo: São Paulo, November 2011.}
oil monopoly (Roett 1999). Law 9478 permitted the government to reduce its stake in Petrobras to 50 percent plus one share. A reflection of a broad confluence of interests, the flexibilization policy was arrived at gradually, after making its way through Brazil’s relatively intricate setting of political institutions, in comparison to Argentina and Mexico (Ames 2009). This is demonstrated by the 1997 Oil Law’s establishment of the Agência Nacional do Petróleo (ANP), which became the bureaucratic agency charged with regulating public and private actor exploration and production in the hydrocarbons sector.\(^\text{151}\)

The 1997 Law laid out a complex SOC for Petrobras.\(^\text{152}\) New rules gave Petrobras greater independence to function as a commercial company in a more competitive international environment. Petrobras also retained its monopoly position. Not only did Petrobras continue to be mostly government-owned, but also its dominant position in all aspects of the value-chain was assured (Palacios 2002). The significance of this reform was two-fold. It reduced government participation while it allowed foreign capital to take partial ownership of Petrobras. Leite (2009) points out that flexibilization of the state monopoly over the petroleum sector created a “new policy legacy” that allowed for competition and investment of private funds at a pivotal moment characterized by a growing deficit of hydrocarbons trade and insufficiency of public funds to further carry out a state-led development model.\(^\text{153}\) The timing of private

\(^{151}\) Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.

\(^{152}\) Until August 2000, the federal government owned 84 percent of voting shares and 53 percent of total capital. On August 10, 2000, the government sold 180.5 million lots of 100 shares for R$ 7.3 billion (US$ 4 billion). Some 40 percent of the shares were sold in Brazil and 60 percent were sold abroad, as Petrobras launched an issue of American Depositary Receipts (ADR) in New York. After this sell off, the government owned 33 percent of Petrobras’ capital, but still held a 56 percent majority of voting rights.

\(^{153}\) Under this SOC, foreign investors (IOCs) must establish and operate out of local headquarters under Brazilian laws. Royalty taxes are paid to the federal government on extracted hydrocarbons that are owned and controlled by the private investor (IOC).
investment in the late-1990s facilitated development of oil exploration and production activities that gave Brazil the crucial footing it needed to move in the direction of sustainable self-sufficiency (Leite 2009).154

The Cardoso government was able to deem the partial privatization of Petrobras both a political and financial success (Tavares de Almeida 2012). Politically, Cardoso was able to take credit for being the first president to sustain major hydrocarbon sector policy reforms. As Corrales points out, Cardoso was able to do so because he “kept the ruling coalition strong in relation to the opposition (Corrales 2002: 273). However, as Corrales further notes, in contrast to Argentina and Mexico, for Brazil, the “result is a watered-down reform program—more far-reaching than those of previous Brazilian presidents, but pale in comparison to those of Menem and Salinas” (Corrales 2002: 273). This therefore further demonstrates the distinction of Brazil in terms of the fourth productive condition, i.e. the absence of a transformative outside political leader capable of overthrowing the status-quo. By the same token, this unique feature of reform in Brazil reinforces the concept of “layering” applied to health care reforms by Falleti (2010). Evolution of hydrocarbon sector development policy reforms in Brazil shows that it is possible to break away, in a gradual and incremental manner, from the historical institutional preconditions that impeded flexibilization.155

Overall, the opening of the hydrocarbon sector to IOCs through constitutional reform in 1997 did not eliminate the de facto monopoly of Petrobras. Petrobras continued to dominate the upstream through its ability to select for itself the most promising blocks where it preferred to search for new reserves, and it also continued to

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155 Author interviews with: Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011; and Roberto di Cillo: São Paulo, November 2011.
dominate in the downstream (De Oliveira 2012). Once its domestic monopoly was eliminated in 1997, Petrobras nonetheless kept a de facto monopoly on the Brazilian market in both the upstream and downstream. Going into the reforms, Petrobras dominated critical technological, logistic, and managerial capabilities to operate offshore. Petrobras’ dominant domestic market position was guaranteed: first, by special clauses allowing it to retain its rights in those areas in which it already started to produce oil; second, by its commitment clause to develop areas of proven reserves was extended from three years to as much as nine years; and third, by the three rounds of concessions for exploration blocks held between 1999 and 2001 that reinforced Petrobras’ dominant position, given the number of joint ventures it signed during the bidding process (De Oliveira 2012). In the downstream, the new framework also benefitted Petrobras’ market position by allowing it to retain existing refineries.\textsuperscript{156} In summary, Petrobras continued to utilize its unparalleled information\textsuperscript{157} asymmetry to its advantage to compete in the domestic oil market.

The “flexibilization” reforms of the late-1990s ushered in a new era for Petrobras. Although Petrobras kept a dominant position in the domestic market, increasing pressures to liberalize changed the incentives at work on the NOC. Building on its earlier investments in technologies to move offshore Petrobras invested in a new research program to develop technologies for underwater exploration in the deep offshore.\textsuperscript{158} Innovative solutions were used to convert old oil tankers and semi-submersible units into

\textsuperscript{156} Private companies wishing to invest in new refineries need the approval of the ANP, which reviews individual cases according to the agency’s national refining plan. Since Petrobras holds 98 percent of the country’s refining capacity, the concentration of ownership could create disincentives for new entries in the refining sector (CERA Latin America Energy Alert and Decision Briefs: 1997).

\textsuperscript{157} This includes geological, technological, industrial, and political information (De Oliveira 2012: 548).

\textsuperscript{158} Author interview with Helder Queiroz Pinto Jr.: Rio de Janeiro, October 2011.
platform complexes that could accelerate the production of the giant oil fields. Over time, these technological initiatives offered Petrobras a major advantage in competing with the IOCs that were pondering whether and how to enter the upstream hydrocarbon industry in Brazil.\textsuperscript{159}

Conclusion:

This chapter has explained intertemporal variation in Brazil’s hydrocarbon sector development policy with emphasis on the market reform period of the 1990s. A broad level of state capacity explains Brazil’s hydrocarbon sector SOC over time and in particular, the evolution of Petrobras into a revenue efficient and technologically capable NOC. The chapter has also explained the reforms carried out to “flexibilize” Brazil’s hydrocarbon sector SOC during the 1990s, and their effects on Petrobras. The chapter finds that the factors that caused reform are broad state capacity in combination with a pro-state reform coalition. Following Falletti (2010), evolution of hydrocarbon sector SOC in Brazil shows that it is possible for historical institutional preconditions to change in a gradual and incremental manner. In such conditions of change, moderate reforms such as “flexibilization” of Brazil’s hydrocarbon SOC in the 1990s are more likely to bear out. Moreover, such slow-paced institutional evolution leads, in the implementation phase, to a greater degree of policy stability.

First, for systemic reasons broadly referred to as globalization, a shift in development strategy took place from capital accumulation toward capital efficiency and market integration. Second, macroeconomic crisis and fiscal insolvency made

\textsuperscript{159} Author interview with Amaury de Souza: Rio de Janeiro, October 2011.
liberalization of productive sectors and its promise of fiscal liquidity an attractive option for democratic leadership in conjunction with globalization. In other words, market reforms were a pragmatic response to short-term macroeconomic challenges. Third, a notable political shift took place in Brazil in the 1990s. This change in leadership brought to power a new ruling coalition that viewed foreign capital investment in strategic sectors more favorably. Such a view contends that those who actually had the power to influence and carry forward the privatization process were not motivated by ideological pursuit of major structural adjustment, but rather by pragmatism (Velasco 1997a, 1997b).

Three contributing factors explain the Brazilian state’s continued support for its hydrocarbon sector and by association Petrobras. First, developmentalist policies that installed a diversified industrial sector in Brazil through the creation of SOEs in areas where the private sector lacked the interest or the capital to invest were main ingredients of the Brazilian state’s ISI development strategy. Equally relevant, economic nationalism, as reflected in the concern to keep exploitation of the subsoil in Brazilian hands, has also been shown to have influenced government support for Petrobras. Overall, necessity and pragmatism defined Brazil’s initial approach to SOEs. As long as IOCs remained uninterested in the Brazilian market, government found it necessary to continue to take a leading role in the economy via Petrobras.

Second, Petrobras demonstrated a consistent effort to uphold its primary mission, i.e. to guarantee the security of domestic supply in pursuit of self-sufficiency in hydrocarbons on behalf of Brazil. Early on, the strategy of Petrobras to guarantee the security of supply of hydrocarbons was inward-oriented. With significant military
involvement, Petrobras was protected from intrastate politicization so long as it met the high-level government objectives laid out for it, most notably the minimization of foreign expenditures on oil imports. The research shows that successive Brazilian governments upheld Petrobras’ operational autonomy because the NOC was able to consistently meet the government’s central goal by way of petroleum imports and expansion of refineries.\textsuperscript{160} Also, Petrobras quickly played an important role in the ISI process through subsidies, and through the production of hydrocarbon derivatives that it supplied to the downstream market (Evans 1979). Despite the economic difficulties of the 1970s and 1980s, Petrobras delivered on the government’s central goals for it to guarantee the security of supply of hydrocarbons while saving hard currencies and supporting the country’s broader industrialization.

Third and finally, Petrobras strategically leveraged its monopolistic power over the Brazilian hydrocarbon industry to prevent penetration of the market by IOCs. It did so through accumulation of capital and technology over time. Petrobras was created in a context of domestic crude oil scarcity in which its preferences were designed to align with those of the government. In the 1970s, when the government decided to invite IOCs into the Brazilian offshore, Petrobras used its privileged information to subordinate the IOCs to its own interests. Brazil mastered production in relatively shallow waters through technology sharing and training of national experts at CENPES. Once it had done so, Petrobras moved steadily into deeper waters where it was able to secure financing through BNDES. Production increases were largely a credit to Petrobras’ own efforts, but the company gained a large financial benefit from the collapse in international

\textsuperscript{160} In the Petrobras annual report, a section is dedicated to activities carried out by the NOC intended to conserve foreign currency expenditures.
petroleum prices in the 1980s. A drop in the oil import bill permitted the NOC to redirect its spending toward investment in offshore technology.

In the 1990s, Petrobras faced a new set of challenges. In the wake of continuing macroeconomic troubles and new ideas about how to organize the national economy, the Cardoso government adopted a radically new approach to all major industries, including the hydrocarbon sector. Between 1995 and 1997, through legislation, the monopoly Petrobras had enjoyed in the domestic market was eliminated. As part of this liberalization of hydrocarbons, IOCs were offered an unprecedented opportunity of ownership and control of blocks in Brazil’s upstream hydrocarbon sector. However, again, Petrobras preserved a dominant position in the domestic oil market and used that position to generate cash and other resources needed to invest, especially in the lucrative upstream. As the economic productivity of Petrobras steadily grew, so did the revenues that accrued to the federal government, which confirms this NOC’s contribution to state capacity in Brazil. From 1997 forward, the operational strategy of Petrobras has been centered on preservation of its dominant position in the domestic market both upstream and downstream as well as on production increases. Moreover, the strategy has been to search out opportunities overseas where its technological capabilities give Petrobras a competitive advantage. Despite its dominant position, Petrobras faces increasing global competition, which has induced it to reorganize its structure and services and to improve its financial and operational performance.

In conclusion, the main argument has been that in Brazil, late-twentieth century flexibilization of the hydrocarbon sector took place for macroeconomic reasons and for reasons of broad state capacity in combination with a pro-state reform coalition.
However, this will not necessarily be the case going forward. Over the medium- to long-term, the role played by the state in the economy will depend upon political factors as well. Of note is that the strategic coalition formed in the 1990s based on mutual recognition of a need to dismantle the ISI model was at that time constrained by a lack of fiscal policy instruments, and therefore policymakers viewed privatization favorably as a way to generate public revenue. The privatization trend diminished with the consolidation of macroeconomic stability, and with increases in tax revenues. Therefore, Brazil is now functioning under a different set of conditions that may indicate an alternative course in hydrocarbon sector development policy.
Ch. 6 – Mexico and Pemex

“A diferencia de las otras revoluciones del siglo XX, la de México no fue tanto la expresión de una ideología más o menos utópica como la explosión de una realidad histórica y psíquica oprimida. No fue la obra de un grupo de ideólogos decididos a implantar unos principios derivados de una teoría política; fue un sacudimiento popular que mostró a la luz que estaba escondido. Por esto mismo fue, tanto o más que una revolución, una revelación. México buscaba al presente afuera y lo encontró adentro, enterrado pero vivo. La búsqueda de la modernidad nos llevó a descubrir nuestra antigüedad, el rostro oculto de la nación.” –Octavio Paz, 1990

Chapter overview:

In this chapter, I explain how Mexico’s long-term dependence on petroleum fiscal revenue leads to a narrow level of state capacity. The chapter illustrates how, under conditions of debt crisis, the hydrocarbon sector development policy of a government with narrow state capacity can remain unchanged. In this country case chapter my empirical analysis demonstrates the conditions that yield the policy choice of nationalization as one categorical outcome on my dependent variable proxy, SOC. As proposed in Figure 2, it is hypothesized that in a country case where state capacity is narrow, and where the president is unable to break a pro-state reform coalition, nationalization is likely to be chosen or maintained as a policy for the hydrocarbon sector. Nationalization falls into the lower right quadrant of Figure 2. Here, I test this hypothesis and competing hypotheses on Mexico’s upstream hydrocarbon sector during the 1990s.

_Petróleos Mexicanos_ (Pemex) was founded as Mexico’s NOC when the government of President Lázaro Cárdenas (PRM) nationalized and expropriated hydrocarbon sector assets on March 18, 1938. From the ashes of the Mexican Revolution (1910-1920), a nationalized hydrocarbon sector came to symbolize a national identity free of foreign influence, and a consensus for economic nationalism, which has stood the
test of time. Among the founding principles of Pemex was to provide the nation with known hydrocarbon reserves, and to be in charge of upstream and downstream activity in the sector. Pemex soon grew to become one of the cornerstones in the promotion of ISI (1950-1970), which in its second phase emphasized manufacturing exports. The hydrocarbon sector has continued to be very instrumental to Mexico’s economic development. Between 1995 and 2000, production of hydrocarbons measured approximately 2 percent of GDP, 9.4 percent of total exports, and 34 percent of the federal budget through nontax and tax revenues (Secretaría de Energía 2000: 25).

Where late-twentieth century market reform is concerned, Mexico is a unique case in comparison to Argentina and Brazil. Still under de facto authoritarian PRI rule at the time, PRI governments in Mexico faced a unique form of political resistance to market reform. Proximity to the US also influenced Mexico’s market reform process, particularly through major trade policy reform that influenced macroeconomic stabilization. In connection with trade policy reform, Mexico liberalized many of its sectors swiftly and extensively. Mexico’s privatization program of the 1980s and 1990s also stands out for its rapid speed and extent. Yet, the same cannot be said for Mexico’s upstream hydrocarbon sector nor for Pemex, neither of which underwent major changes during this reform period.

This chapter’s qualitative comparative analysis finds that, in the case of Mexico, a nationalized development policy for Pemex was maintained during the 1990s for three primary reasons. First, trade policies that promoted manufacturing exports were targeted

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161 This tradition has endured. Each March 18th, the anniversary of the expropriations is still celebrated throughout Mexico as an assertion of Mexican sovereignty and economic independence.
162 Mexico joined the General Agreement on Tariffs and Trade (GATT) in 1986.
to restore macroeconomic stability. These same protected manufacturing sectors were subsidized by hydrocarbon derivatives supplied by Pemex, which ruled out hydrocarbon sector reforms. Second, a reliance on Pemex for fiscal revenues had become institutionalized and reinforced by a legacy of narrow state capacity. My analysis of Pemex finds that its twentieth century evolution confirms rentier state theoretical claims about state enterprise. Such claims predict that governments with direct access to extraordinary natural resource rents are likely to utilize those rents to maintain political power and incumbency through distribution and political patronage. Mexico and its hydrocarbon sector therefore challenge economic nationalist claims that states most effectively direct their economies and societies to the “commanding heights” of development by way of autarky, targeted investment, bureaucratic efficiency, and autonomy from the influence of societal actors. Mexico’s illustration of a rentier state model in the case of hydrocarbons is here explained as a consequence of narrow capacity of the federal state, itself.

Third, and finally, Pemex remained nationalized during the 1990s as a result of interest-based rationality found in a pro-state reform coalition. This coalition was comprised of a concentrated set of actors who successfully opposed Salinas’ preference to turn Mexico’s hydrocarbon industry over to the market. Widespread recognition of Pemex’s role as a source of political patronage served to detract from Salinas’ argument for complete deregulation and privatization as part of a broader aggressive market reform strategy. Once the Salinas government introduced privatization of Pemex to the agenda,  

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163 For further discussion of the rentier state and rent-seeking theories, see: Beblawi and Luciani (1987); Buchanan et al. (1980); Bueno de Mesquita et al. (2003: 91-99); Karl (1997); Krueger (1974); and Yates (1996).
it proved politically incapable of organizing a reform coalition needed to carry the reform process forward to approval, and the reform proposal was summarily rejected.

The remainder of the chapter is structured as follows. First, I provide a brief overview of material facts about the export profile of Mexico and its hydrocarbon sector. Second, I trace the process of SOC variation over time to demonstrate patterns of institutional continuity so outwardly apparent in the hydrocarbon sector in Mexico. This includes a succinct description of the legal and organizational structure of the national hydrocarbon industry and that of Pemex. This historical institutionalist narrative is organized inter-temporally, by the antecedent, the permissive, and the productive condition categories of my critical juncture framework. At the heart of this process tracing analysis is data I put forth to test my hypotheses of economic crisis, state capacity, and reform coalition configuration. Third, and finally, I consider a number of alternative explanations, and I summarize my findings. Through hypothesis testing, the chapter confirms that the determinants of nationalization are both domestic and external in nature. Overall, the effort exhibited by this case analysis demonstrates that, as has been previously acknowledged by political scientists who have researched Mexico, the SOC of Mexico’s hydrocarbon sector is a reflection of the country’s entrenched rentier state.

Material facts:

Hydrocarbons are an important sector of Mexico’s economy. In 2008, Mexico was the seventh largest oil producer in the world, and the third largest in the Western
Yet, oil production is on the decline in Mexico due to a decline in proven reserves (Elizondo 2012), as shown below in Figure 11. Mexico’s domestic production trend is therefore on the decline over the time period under analysis in this dissertation, which translates to a short-term production time horizon (Mares 2009; Secretaría de Energía 2007).

**Figure 11 – Proven Oil Reserves in Mexico (1980-2013)**

The historical contribution of oil exports to Mexico’s economy is illustrated in Figure 12, as is the growing increase in oil imports since the mid-1990s due to declining levels of production and increasing domestic consumption.

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164 eia.doe.gov Mexico profile, March 2009  
165 Author interview with Víctor Carreón Rodríguez, Professor, Centro de Investigación y Docencia Económicas: Mexico City, January 2011.
Figure 12 – Annual Comparison of oil exports and imports in Mexico (1980-2012)

Source: IMF WEO Database (April 2012)

*Antecedent Conditions (1950s-1960s)*:

(1) Form of state-society relations

Oil exploration in Mexico began under the *Código de minería de la República Mexicana* (1884), which granted subsoil property rights to the surface property owner (Grayson 1981: 9). Early on, foreign contractors sanctioned by the dictatorship of Porfirio Díaz led upstream development of hydrocarbons. Promotion of foreign capital investment in domestic industry had become a trademark of the *Porfiriato*. However, by 1910 the political environment in Mexico had changed dramatically. In 1911, Francisco Madero ousted Diaz from power. This marked the beginning of the decade-long Mexican Revolution. Yet, it was during this revolutionary time that Mexico’s petroleum production grew at an unprecedented rate, in both absolute and relative terms (Palacios 2002). During the 1920s, Mexico became the world’s second largest petroleum producer.
behind the US, and world’s largest petroleum exporter, producing almost 25 percent of the world’s oil supply (El Mallakh et al 1982).

Out of the Mexican Revolution (1910-1920), the Partido Nacional Revolucionario (PNR) led a new era in Mexico under a broad political coalition. The process of popular sector incorporation in Mexico is rooted in the Revolution, which toppled the oligarchy of the Porfiriato. The Revolution produced the 1917 Constitution, which spelled out a nationalist progressive reform agenda (Morris 1999). Reforms were initiated to transform the state and to incorporate popular sector groups into politics. The reformist government incorporated both labor and the peasantry through a form of political incorporation referred to as radical populism (Collier and Collier 1991). The state crafted a power-sharing arrangement with these groups that became embodied in the National Revolutionary Party (PNR). Under the PNR, radical populism brought about the development of a conservative governing coalition that reshaped national politics (Collier 1982; Mahoney 2001).

Significant sociopolitical reform was carried out under the leadership of President Lazaro Cárdenas (1934-1940). Cárdenas organized Mexican society by sectors. Incorporation was a matter of being a participant in the corporatist hierarchy of interest intermediation. The ruling party was renamed the Partido de la Revolución Mexicana (PRM) and restructured along corporatist lines. PRM membership was organized based on affiliation with the peasant, labor, military, and popular sectors. To cement these corporatist lines, Cárdenas embarked on wide scale reforms that bound labor and peasants to the PRM. Included were agrarian reform, labor reform, and nationalization of

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166 A military sector (disbanded in 1940) was created to organize the interests of soldiers and officers who had fought during the Revolution (Camp 1992).
the hydrocarbons industry. Going forward, Mexico was an exporter of commodities (Wright 1971). In summary, as a result of this sociopolitical reorganization, Cárdenas became inextricably linked to the PRM as its symbolic hero, and this connection continued into contemporary times.  

(2) Founding mission of the NOC

As part of the corporatist reorganization of society Cárdenas merged several different oil workers unions into a single national union, the Sindicato de Traabajadores Petroleros de la República Mexicana (STPRM). The STPRM moved swiftly to advocate on behalf of its members (Palacios 2002). In 1938, following a number of disputes including business-labor disputes over wages and other concerns, Cárdenas moved to nationalize hydrocarbons and to expropriate foreign-owned (IOC) assets. Added to the 1917 Constitution in March 1938, Article 27 eliminated private subsoil property rights and granted the Mexican nation (the federal state) complete territorial subsoil rights in hydrocarbons. Article 27 also created Pemex as the NOC, which became the main supplier of hydrocarbons and their derivatives to the nation.  

Given the well-established revolutionary sentiment toward imperialism on the domestic front, opposition

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167 Author interview with Jorge Chabat, Professor, Centro de Investigación y Docencia Económicas: Mexico City, January 2011.
168 Decreto que Crea la Institución Petróleos Mexicanos, articulo 3 el 20 de Julio de 1938. A number of amendments to Article 27 have taken place since 1938. In 1940, el Ley reglamentaria del artículo 27 en materia de petróleo (9 de noviembre) outlawed private actor concessions in hydrocarbons. Any private contracting in the upstream was specifically prohibited in 1958 by el Ley reglamentaria del artículo 27 constitucional en el ramo del petróleo (29 de noviembre). In addition to reaffirming that subsoil property rights are held exclusively by the nation and to be developed by Pemex, the Petroleum Law of 1958 also required that any contractors be monetarily compensated for their services. In 1960, President López Mateos amended Article 27 to terminate any existing hydrocarbon concessions and to underscore the state monopoly in hydrocarbons. In 1971, el Reglamento de La Ley Orgánica de Petróleos Mexicanos (10 de agosto) superseded the 1938 oil law. In 1977, el Decreto de reforma a los Artículos 7 y 10 de la Ley Reglamentaria del Artículo 27 Constitucional en el Ramo del Petróleo (30 de septiembre) reinforced the exclusive subsoil rights of Pemex.
to the expropriation was limited to foreign capital represented by IOCs backed by the United States and other foreign governments (Grayson 1981).

Article 27 immediately made Pemex Mexico’s main actor in state-led hydrocarbon development and a symbol of national patrimony. But Pemex had few advantages in its early stages of upstream oil development. Meanwhile, in an early indication of the politicization of Pemex, in the ten years following nationalization, employment more than doubled while production grew only moderately (Palacios 2002). These conditions set the stage for Pemex to become the focus of competing domestic interests as Pemex was also charged with providing hydrocarbons and their derivatives to the nation, and exporting the surplus to the international market (Teichman 1995).

Inclusionary authoritarianism as a mechanism of reproduction:

In 1946, the foundations for a centralized and corporatist system were already being put firmly in place in Mexico when the PRM was renamed the Partido Revolucionario Institucional (PRI). The 1947 tax convention proposed that local governments relinquish important taxing authority to the federal government in exchange for a guaranteed share of federal tax revenues (Courchene, Diaz-Cayeros and Webb 2000). Starting in 1947,

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169 Article 27 of the Constitution, which states that control and ownership of natural resources belongs to the nation, legally frames Mexican hydrocarbon sector development policy. Under this law, PEMEX, the NOC that was formed in conjunction with expropriation of foreign industry and nationalization in 1938, operates as a monopoly in the upstream, midstream, and downstream segments of the sector (Decreto que Crea la Institución Petróleos Mexicanos, articulo 3 el 20 de Julio de 1938).

170 According to Palacios (2002), Pemex did not benefit much from expropriated capital or technology. Without expertise and technology, production soon went into decline. Production decreased continuously over the ten years following expropriation due largely to the suspension of all exploratory activities and the exhaustion of proven reserves (Barbosa 1992: 195). Pemex was also challenged by the continued influence of the STPRM, which consolidated greater bargaining power toward the government after nationalization of the sector.
this centralization of taxing authority in the federal government began to chip away at subnational autonomy in Mexico. Prior to 1947 there was little to no tax or policy coordination among states or between states and the federal government. For the modernizing Mexican state, centralization of taxation in 1947 was made possible in large part due to the unique links between the PRI and government that blurred institutional distinctions (Knight 2001). Under PRI dominance, the president’s discretionary power, and the allegiances commanded by that power reinforced political stability at all levels of government. Going forward, tight federal control over tax collection helped create and then reinforce the centralized political regime because it gave the executive control over tax revenues and public expenditures (Pardinas 2012). This enabled PRI presidents to pursue policies that favored national over subnational economic interests (Schiavon 2006).

The centralized and corporatist system put similar controls upon societal interests. Members of the urban sector belonged to a variety of different unions. A majority of citizens belonged to the rural sector and were peasant subsistence dwellers with their own union (Gonzalez Casanova 1970). Members of these sectors asserted their demands through officially sanctioned sector leaders. Even so, the hierarchical corporatist structure made sector leaders more beholden to the president than to their own sector membership. Narrow corporatist political ties created during this period reinforced vertical accountability that effectively prevented broad-based popular opposition to the

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171 Industrial workers and urban craftspersons joined the Mexican Confederation of Workers, or CTM (Middlebrook 1995). Public sector employees, middle-class professionals, and others joined the National Confederation of Popular Sectors (CNOP).

172 Peasants typically joined the National Confederation of Peasants (CNC) due to its ties the ejido system.

173 Author interview with David Shields, Energy Analyst: Mexico City, January 2011.
PRI (Camp 2007; Morton 2013). In the words of Susan Kaufman Purcell (1975), Mexico under PRI dominance developed into an “inclusionary authoritarian” regime.

Policymaking under the corporatist PRI system was both clientelist and exclusive. It reflected political cooperation among a small number of political actors in an institutional arrangement upheld by ties between the president and corporatist leaders. Under the PRI, the Mexican state was more of a clientelist “bargain” than a formal institution (Susan Kaufman Purcell and John F.H. Purcell 1980). The centralized policymaking emblematic of PRI dominance “allowed for inter-temporal agreements between sexeños that produced stable, adaptable, and coordinated policies” (Lehoucq et al. 2005: 5-6). This institutional arrangement helped to stabilize Mexican politics for decades, even as other countries in the region became highly unstable.174 In comparison to Brazil, Ruth Berins-Collier points out, “in Mexico, by contrast, the regime served to perform the legitimating task and the constituency work of the state and at the same time has insulated the decision-making arena from popular pressures” (Collier 1982, pp. 96-97). However, as it grew, PRI leadership was obligated to provide selective incentives to its base to reinforce loyalty.

In 1979, the primacy of presidential interests over subnational interests was reinforced through the taxation mechanism and through the regional distribution of federal transfers. The federal government further concentrated fiscal authority through creation of the Sistema Nacional de Coordinación Fiscal (SNCF), which replaced the national sales tax with the federal VAT in 1979 (Diaz-Cayeros 2006). Under the SNCF,

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174 As pointed out by Ros (1994), this pattern of inter-temporal agreements is best observed in Mexico’s fixed exchange rate regime that was accompanied by fiscal discipline that promoted urban industrialization under ISI between 1950 and 1970. From 1954 to 1976, the Mexican economy was governed by a fixed nominal exchange rate regime. Unprecedented levels of growth were achieved during this period.
states relinquished authority over additional state-level taxes in exchange for guaranteed shares of the VAT. The centralization of tax collection was possible because local politicians were willing to surrender tax authority in exchange for fiscal compensation from the federal government (Diaz-Cayeros 2006).\footnote{175} Not surprisingly, given the federal government’s fiscal powers, public expenditure came to reflect presidential priorities. In the context of the PRI this power reinforced clientelism and secrecy in state expenditures. In what had become institutionalized clientelism, PRI presidents used their fiscal powers to reward PRI members.\footnote{176} State governors were subordinates of the president and thus accountable to the president. This power structure was maintained through a system of highly discretionary federal transfers well into the 1990s.\footnote{177}

In summary, the power of the PRI-dominant regime was constrained more so by interests than by institutions in political terms. Leaders of corporatist sectors held seats

\footnote{175} Under the SNCF and fiscal federalism, maximization of economic returns meant concentrating fiscal transfers and public investment in the most profitable economic sectors (Diaz-Cayeros 2006). Given that the productive sectors most significant to the national economy were concentrated in only a few states, the system reinforced regional disparities (Godínez 2000). Indeed, the extent to which regional interests benefited from national spending was more so a function of presidential priorities than a particular subnational government’s ability to influence policy. This tendency was reinforced by the PRI’s corporatist structure, which allowed sectoral rather than territorial interests to dominate the Chamber of Deputies. Without any power to control the federal budget, the Senate was powerless to protect subnational interests.

\footnote{176} Author interview with Jorge Chabat: Mexico City, January 2011.

\footnote{177} Per Diaz-Cayeros (2006), subnational politicians went along with the PRI’s fiscal federalism design and the SNCF for two important reasons. First, the oil boom of the 1970s brought the federal government sizable oil revenues that promised greater resources for subnational governments. States can legally opt out of the system at any time and recover local tax authority, but the SNCF equilibrium has proven to be quite stable. Second, the PRI guaranteed political careers. Subnational politicians found it politically expedient to accept a further centralization of tax authority and inter-governmental relations under the SNCF. Regional favoritism was a major consequence of subnational leadership’s abdication of electoral, fiscal and policy authority to the federal government. Nevertheless, while the lack of a subnational voice in public spending aggravated regional inequalities, the equilibrium bargain between federal and local leaders remained robust. Subnational leaders from both poor and wealthier areas trade guaranteed political careers for predictable shares of government resources. Moreover, economic favoritism did help to reward the PRI’s most important constituents including public utilities workers, workers in private industry, and business groups. This is simply because it delivered jobs and prosperity to states that already had strong corporatist representation in the national government. Leaders from poorer areas, though their careers were guaranteed, were marginalized from most policy programs, while the federal government used its control over the process to support the most economically influential areas of the country.
in agencies, cabinets, and Congress, commensurate with their economic significance. These corporatist leaders were key players in shaping policy in what became commonly known as la plaza (system).\footnote{178 Author interview with David Luhnow, Correspondent, \textit{The Wall Street Journal}: Mexico City: January 2011.} Beneficiaries of the corporatist socio-political arrangement served as a check on the president’s power. In the case of redistributive measures likely to impose a cost on a particular corporatist interest group, the process became more exclusive.\footnote{179 In Susan Kaufman Purcell’s (1975) classic account, President López Mateos’s (1964-70) decision to require business actors to share a portion of their profits with their workers was not even discussed with the business actors or labor leaders.} Moreover, the hierarchical nature of accountability under PRI dominance calls into question whether Mexico’s institutional framework was in fact federalist, since power and fiscal revenue was actually highly centralized (Pardinas 2012; Schiavon 2006). Indeed, the centralization of intergovernmental fiscal relations in the late-1940s would leave an important legacy on Mexico (Levitsky 2001).

Though less personalistic than other mass populist parties such as the PJ in Argentina, over time the PRI did acquire other important populist features, including a strong element of working-class and peasant mobilization from above (Burgess 2003). Key aspects of the party structure were routinized, such as the corporatist sector system that linked the party to organized labor (Kaufman et al. 1994). But despite its name, overall, the PRI did not ever become highly routinized. It was reorganized several times during its formative phase, and thereafter it retained an informal and relatively fluid structure. The party retained a fluid leadership hierarchy that permitted substantial leadership turnover.\footnote{180 Author interview with Jorge Chabat: Mexico City, January 2011.} In the absence of bureaucratic structure, presidential successions tended to be accompanied by a thorough housecleaning of the party leadership. PRI
presidents therefore enjoyed substantial decision-making autonomy (Samuels and Schugart 2010).

(3) Form of ISI

Mexico’s mid-twentieth century ISI development strategy, “Desarrollo Estabilizador,” shared a number of similarities with models being implemented at the same time in Argentina and Brazil. But Mexico’s ISI model was not entirely inward-oriented. ISI manufacturing took off in Mexico with the support of hydrocarbon subsidies (Maloney 2007). Between 1939 and 1950, annual petroleum production increases of 5 percent were outpaced by annual consumption increases of 9 percent (Palacios 2002). Between the 1950s and early-1970s, ISI in Mexico provided moderate levels of protection to a number of manufacturing industries (Maloney 2007). Beginning in the 1960s, in its secondary stage, ISI was intensified across a variety of productive sectors (Morton 2013). Enhanced industrial and trade policies provided a number of incentives to infant industries. These sector-specific programs gave increasing emphasis to export and price competitiveness, and to the development of SOEs. Industries that showed the highest growth rates were automobiles, machinery and electrical appliances (Ros 1994).

With time, ISI’s tendency to support the manufacturing sector translated into a decline in crude oil exports, which put a strain on the finances of Pemex (Grayson 1981). Export revenues were an important source of income for Pemex, given that ISI policies subsidized other sectors through domestic price controls on gasoline and other hydrocarbon derivatives (Maloney 2007). Oil derivative subsidies granted to

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181 Per Chenery and Syrquin (1986), ISI focused on domestic market expansion as the primary source for industrial growth. Its underpinnings directed fiscal and monetary policy toward price stability and sustained growth.
manufacturing industries posed a major strain during the 1950s and 1960s when, due to stagnant output by Pemex, it actually became necessary to supply the national economy through crude oil imports (Grayson 1981). This early trend demonstrates a lack of technological capacity within Pemex.\(^{182}\) At this point, Pemex had essentially curtailed its exploration activities, as it became a policy instrument of the PRI government prone to international borrowing.\(^{183}\) In fact, in 1969, Pemex borrowed 41 percent of its investment budget (Philip 2007: 351). This debt only served to prop up the internal inefficiency of Pemex as it continued to subsidize the domestic ISI market.

The 1970s brought major economic change to Mexico when externally driven economic conditions came into conflict with the ISI model (Camp 2007). Shifting international patterns generated domestic challenges and opportunities that ushered in a new set of macroeconomic priorities for Mexico’s leadership. These new priorities were reflected in a number of industrial and macroeconomic policy reforms. Structural change began to occur against a backdrop of increasing international economic instability. Reforms to ISI were aimed at export promotion and international competitiveness (Fajgenbaum 2012; Teichman 1995, 2001; Williams 2001). Also, a number of government agencies were created, whose role it was to oversee tariffs, to provide credit and financing to new export industries, and to promote access to international markets (Eifert, Gelb, and Tallroth 2002).

In a major turn of events for Mexico, between 1973 and 1976, Pemex discovered vast petroleum reserves, including the Canatarell offshore field in the Gulf of Mexico

\(^{182}\) Author interview with Víctor Carreón Rodríguez: Mexico City, January 2011.

\(^{183}\) As Palacios (2002) points out, “the increased weight of domestic subsidies, high domestic operational costs due to technical and administrative inefficiency, and falling export revenues, coupled with mounting capital requirements, meant that the only way for the company to finance its own operations was to increase its debt burden.”
(Grayson 1981; Mares 2009). Vast new petroleum discoveries were made during the presidency of José López Portillo (1976-1982). These discoveries, Cantarell in particular,\textsuperscript{184} dramatically changed the financial outlook of Pemex and of the Mexican government.\textsuperscript{185} Suddenly, Pemex was again able to meet the demands of the domestic market, and it was also able to resume crude oil exports (Puyana 2006). As Palacios (2002) points out, overnight Mexico became a world player on the international oil market. Production increased by 200 percent in the 1970s, and reserves increased more than tenfold (from around 5.4 billion barrels in 1973 to 72 billion barrels in 1980). The country went from being an importer in 1973, to a net exporter of approximately 1.5 million barrels of oil per day in 1982. “Pemex thus shifted from being a subsidy-prone public company fueling the economic development of the country to a revenue-generating public institution assuring the financial viability of the state” (Palacios 2002).\textsuperscript{186}

By the late-1970s, with the new petroleum discoveries, the hydrocarbon sector rose to become the dominant economic sector in Mexico (Ros 1994). Between 1979 and 1985, oil exports represented 60 percent of Mexico’s total exports, and the oil industry’s share of GDP increased from 3 percent in 1973 to 13 percent in 1983 (Secretaría de Energía 2000). Contributions made by Pemex to federal government coffers increased from less than 4 percent of total fiscal revenue in 1970 to 25 percent in 1980 (Secretaría de Energía 2000). Oil boom revenues, in turn, led to a substantial increase in government

\textsuperscript{184} In the words of Jorge Chabat, “the discovery of Cantarell in 1978 was a critical juncture that has enabled Mexico to oil sector reforms” (Author interview: Mexico City, January 2011).
\textsuperscript{185} Author interviews with Víctor Carreón Rodriguez and David Shields: Mexico City, January 2011.
\textsuperscript{186} Reconfirmed in author interview with Víctor Carreón Rodriguez who classified Mexico as an “oil state”: Mexico City, January 2011.
“Public expenditure soared to from 16 percent of GDP in 1970 to 40 percent in the early-1980s, and the number of public enterprises jumped from 84 in 1970 to 1,155 in 1982” (Palacios 2002). Pemex substantially increased its share of public sector expenditures from 12.3 percent in 1973 to almost 30 percent in 1980 (Secretaría de Energía 2000).

Increased production by Pemex gave the PRI a number of new political and policy alternatives (Prontera 2009; Puyana 2006). Such new options were made possible by the direct contribution of Pemex non-tax and tax revenues to the federal coffers, and through increased international borrowing made possible by increased petroleum reserve collateral (Karl 1997). As evidence, the government increased spending in excess, and it borrowed heavily from international lenders and collateralized these loans with newly found oil discoveries (Camp 2007). The country’s renewed position as a major crude oil exporter also led the recently elected Lopez Portillo government to postpone economic reforms and to evade creditors (Waterbury 1993). For example, in 1976, after having signed a loan agreement with the IMF, Lopez Portillo later abandoned it in light of the complete turnaround of Mexico’s external liquidity situation (Teichman 1995).

Moreover, the petroleum boom provided the PRI government with the financial means to sustain its ISI populist development strategy (Gibson 1997). With the increase in oil exports, incomes increased considerably in Mexico. In this context, PRI leadership adopted a mindset that Mexico had found a development path identical to that of other major oil producing countries. Spurred on by simultaneous increases in international

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187 Author interview with Alicia Puyana Mutis, Professor, FLACSO: Mexico City, January 2011.

188 Author interview with Jorge Schiavon, Professor, Centro de Investigación y Docencia Económicas: Mexico City, January 2011.
petroleum prices, the Mexican government launched major state-led investment projects designed to diversify the economy through ISI reforms (Waterbury 1993).

Mexico’s 1970s shift to a more mixed and market-friendly ISI development strategy reflected the changing structure of incentives associated with evolving macroeconomic and foreign economic policies. But this transition to a mixed development strategy was not without costs. On the one hand, heavy manufacturing sectors remained protected into the 1970s. On the other hand, primary goods production continued to subsidize other industry (Maloney 2007).\(^\text{189}\) Hydrocarbons continued to subsidize other sectors of the economy through low energy prices. Aided by Article 27, this bias demonstrates a growing dependency of the broader economy on the hydrocarbon sector. But given that actors in favor of liberalization of the hydrocarbon sector had been disenfranchised through expropriation, Article 27 guaranteed the national government a steady stream of hydrocarbon rents (Morris 2010).\(^\text{190}\) Moreover, actors in competing industrial sectors that had benefitted from subsidies had no interest in the elimination of these hydrocarbon derivative subsidies.

However, Article 27 increasingly put the government at odds with the operational demands of Pemex.\(^\text{191}\) PRI government bias against Pemex mirrors policy under Peron in 1940s Argentina, and policy under Vargas in 1930s Brazil. But this bias is unique to Mexico for its continuity. As shown below in greater detail, in the absence of political opposition, policy continuity in Mexico’s hydrocarbon sector has been perpetuated by:

1) the federal state’s fiscal reliance on a guaranteed rent stream; and 2) PRI government

\(^{189}\) Unlike in Argentina, bias in Mexico did not target agriculture, as proven by guaranteed prices and input subsidies. The only exception was from the mid-1960s to the mid-1970s when effective protection turned from positive to negative in agriculture, which contributed to an economic downturn in agriculture.

\(^{190}\) Reconfirmed in author interview with Jorge Chabat: Mexico City, January 2011.

\(^{191}\) Author interview with Jaime Suárez Garza, Coordinador Ejecutivo, Pemex: Mexico City, January 2011.
support for the urban-based industrial export sector.\textsuperscript{192} By the 1970s, distribution of rents to maintain political patronage had established a firm pattern of rent seeking directed toward Pemex.\textsuperscript{193} Political pressures therefore distracted Pemex increasingly, and kept the NOC from pursuing capitalization, operational efficiency, and technological advancement (Puyana 2006; Wood 2010).

\textit{Narrow extractive capacity and its effects on intrastate relations with Pemex:}

Mexico’s tax regime has long been known for being complicated, inefficient, and prone to evasion. The tax system has major defects that hamper its efficiency and equity, and that are responsible for a very low level of tax revenue in relation to GDP (Díaz-Cayeros 2006; Fajgenbaum 2012). For many decades, Mexico’s federal tax system has relied excessively on non-tax oil revenue and on the VAT, which has also perpetuated a narrow federal tax base (Elizondo and Santiso 2006). As a consequence, oil revenue taxes, and domestic oil consumption taxes have played an important fiscal role, in certain years accounting for close to 40 percent of total federal tax revenues (Elizondo 2012). The Mexican state has enjoyed large non-tax revenues, especially since the oil boom of the late-1970s and early-1980s, which transformed Pemex into one of the world’s largest petroleum companies (Puyana 2006). Oil was consolidated as the cornerstone of Mexico’s revenue system in the early-1980s. A major role played by Pemex is in supplying non-tax revenue to the Mexican state.\textsuperscript{194} Pemex revenues enter the federal

\textsuperscript{192} Author interview with Jorge Chabat: Mexico City, January 2011.
\textsuperscript{193} Author interviews with Víctor Carreón Rodríguez and David Shields: Mexico City, January 2011.
\textsuperscript{194} Author interview with Víctor Carreón Rodríguez: Mexico City, January 2011.
treasury through a variety of fees and levies on its production. These are considered non-tax revenues because Pemex is part of the Mexican state and earns income by selling its products in domestic and foreign markets. Such reliance on non-tax oil revenue makes Mexico’s fiscal accounts extremely vulnerable to declines in domestic oil production in addition to price volatility in the international oil market.\footnote{In Mexico, the central government’s total tax “take” since 1980 was an average of 10 percent of annual GDP. In the mid-1990s reform period, government revenue has averaged only 21 percent of GDP. During the 2000s, total public revenues (including non-tax revenues) have averaged about 12-19 percent of GDP. Moreover, when compared with its peer countries in Latin America, and other regions, Mexico’s revenue ratio is the lowest. This difference is even more striking when Mexico’s oil sector tax revenue is excluded. Indeed, non-oil tax revenue has averaged just 15 percent of GDP since the mid-1990s. Mexico’s tax burden is one of the lowest in the region, and comparable to those of much poorer countries like Guatemala. Despite attempts to restructure the tax system in the 1980s, revenues have actually declined. Federal policymakers have reformed tax codes and modernized tax revenue agencies. But effective tax collection rates remain low because Congress refuses to eliminate tax loopholes and regressive exemptions (CIDE-ITAM 2003).} The negative relationship between oil revenue and low tax revenues in Mexico is significant. Petroleum exports account for only 10 percent of total exports, but they represent an average of 30 percent of public revenues (Dalsgaard 2000). There is broad agreement that the availability of oil revenues has worked against greater taxation in Mexico.\footnote{Author interviews with Víctor Carreón Rodríguez, Jorge Chabat, Jorge Schiavon, and Duncan Wood, Professor, Instituto Tecnológico Autónomo de México: Mexico City, January 2011.} Mexico is therefore a likely case to test theories of the rentier state that contend extractable natural resource rents lead to low levels of taxation (Ross 2001).

The pattern of narrow extractive capacity perpetuated by the Mexican state under decades of PRI rule has had numerous effects on the operational and technological capacity of its NOC, Pemex (Prontera 2009; Wood 2010). Following nationalization of the petroleum sector in 1938, policy and operations were integrated into one NOC. Pemex was charged with complete and exclusive planning and management of Mexico’s hydrocarbon resources. Since the Cárdenas presidency the Mexican state has exercised
close control over the budget and regulatory framework of Pemex. Such oversight has prevented Pemex from building the kind of operational autonomy that NOCs like Petrobras have acquired over the same time period. In summary, five closely related factors have stood between Pemex and its expansion of operations and from its attainment of a long-term strategy: 1) a divergence of interests from the federal government; 2) a lack of financing; 3) a lack of relations with contractors and IOCs; and 4) a lack of human capital. My research and analysis revealed the presence and effect of these factors in the Mexican case.

The divergence of interests between the federal government and Pemex are indicated in several ways. The most direct indications of government leverage over Pemex come primarily from within Mexico’s extensive bureaucracy (Teichman 1995). One bureaucratic example of the presence of divergent interests is particularly evident in the structure of Pemex’s board of directors. Ministers sitting on Pemex’s board are also charged with regulating the NOC (Serra 2011). The energy ministry monitors Pemex’s activities and proposals even while the Energy Minister was chairman of the board of the NOC. Moreover, a fifteen-member board formally governs Pemex. However, six of the directors are representatives of the state designated by the president. Government ministers have traditionally held a majority on the board. Meanwhile, five seats are reserved for Mexico’s Oil Workers Union, El Sindicato de Trabajadores Petroleros de la República Mexicana (STPRM). In addition, the Pemex Workers Union

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197 As pointed out by Samuels and Schugart (2010), Mexico is a presidential republic with a bicameral legislature. The president is popularly elected to one six-year term, and appoints secretaries to oversee sectoral ministries. All government spending requires the approval of the Congress, which is divided into two chambers, the Chamber of Senators and the Chamber of Deputies.
198 Author interviews with Jaime Suárez Garza and Carlos Treviño Medina, Chief Financial Officer, Pemex: Mexico City, January 2011.
199 Author interview with Jorge Schiavon: Mexico City, January 2011.
200 Author interview with Jaime Suárez Garza: Mexico City, January 2011.
wields tremendous power.\footnote{Author interview with Jorge Chabat: Mexico City, January 2011.} Union leaders are virtually untouchable and have de facto veto power over management proposals.\footnote{STPRM wields enormous political and social clout. One example of the tremendous influence exerted by this group is that the leader of STPRM, Carlos Romero Deschamps, was given a senate seat by the ruling PRI in 1994 (Grayson 1998). In return for the power granted to the union bosses from the ruling party, the union generates political support for the party. This delegation of power to union officials has been accomplished through a contract with Pemex management, which provides that the union fully controls 90 percent of the workforce. Union bosses like Romero Deschamps maintain their positions by exploiting popular nationalist sentiment and using government funds to provide public services to Pemex workers. By integrating the union into society in this manner, individuals become compelled to support the political welfare of union bosses to insure that local benefits continue to accrue.} This is further proven by the fact that union leadership, instead of Pemex management, is granted the crucial responsibility for human capital acquisition in the hiring of workers. As evidence of this failure to build human capital, Pemex must rely heavily on contractors due to its poor internal expertise and engineering capabilities.\footnote{Earlier in its history Pemex did invest in a highly competent internal engineering culture that has since largely evaporated. The Instituto Mexicano del Petróleo (IMP) has been credited for its efforts to foster human capital in Pemex. IMP served as a technology incubator and a procurer of outside contractors for Pemex during the 1970s.} On the condition of anonymity, interviewed experts pointed to the union and its corrupt dealings to partially explain the inefficiencies of the NOC.\footnote{Author interviews with anonymous: Mexico City, January 2011.}

As indicated above, a second bureaucratic example of divergent interests between the Mexican state and Pemex is found in the NOC’s relationship with the Ministry of Finance (Hacienda). Hacienda, in effect, controls the finances of Pemex. Hacienda sets the prices Pemex charges domestically, it proposes the taxes Pemex will pay, and it decides on Pemex’s budget submitted for congressional approval.\footnote{In author interview, Duncan Wood (Mexico City, January 2011), points out that “Hacienda and the Ministry of Energy are one and the same government entity.”} Yet, in return for this enormous influence, Hacienda does not provide Pemex with any strategic or technical support (Elizondo 2012). Not surprisingly, the impression of Pemex management who spoke on condition of anonymity are that Hacienda is overly...
preoccupied with the NOC’s procurement processes and budgeting.\textsuperscript{206} By the same token, Hacienda is not nearly as attentive or informed about Pemex’s technology investments, efficiency, and expansion. Ultimately, what matters to Hacienda is whether Pemex will conform to its annual budget, not whether it is using the best technology or if it has a coherent plan for long-term growth.\textsuperscript{207}

In summary, economic adjustment in Mexico was delayed beyond the 1970s by deeply embedded clientelist PRI policies and by unexpected oil discoveries. A major contributing factor was the international petroleum price boom, which made clientelist policies more affordable. Given that adjustment would have compromised support from the PRI’s urban-based political coalition, presidents put off reform.\textsuperscript{208} Even so, the 1970s did eventually give rise to significant macroeconomic distortions in Mexico due in part to continued reliance on non-market mechanisms. Manufacturing producers became increasingly reliant upon energy subsidies and a favorable exchange rate. In addition, excessive government borrowing leveraged against future petroleum revenues led to overextended public expenditure (Karl 1997). This public expenditure brought major economic imbalances, and a growing and unsustainable debt burden. Despite government initiatives, industrial output actually declined over the 1970s, particularly in the latter part of the decade once the boom in petroleum prices triggered a rapid rise in imports, inflation, and exchange rate instability. But little was done to address balance-of-payments crises, mounting debt, and stalled growth (Santiso 2003). Instead, PRI leadership opted to devalue the currency, to grow the public debt further, and to rely on revenues from Pemex, for lack of broader fiscal capacity (Kaufman 1989). Increasing

\textsuperscript{206} Author interview with anonymous: Mexico City, January 2011.
\textsuperscript{207} Author interview with Duncan Wood: Mexico City, January 2011.
\textsuperscript{208} Author interview with Alicia Puyana Mutis: Mexico City, January 2011.
Macroeconomic volatility was therefore not a sufficient cause for change in the fiscal policy of the PRI regime during the 1970s (Burgess 2003). In general, leading up to 1982, under the PRI’s watch the Mexican state’s system of oversight for Pemex reinforced a divergence of interests detrimental to the operational and technological capacity of Pemex (Prontera 2009). By the 1980s, the operations of Pemex had become intertwined with the federal budget. After the Cantarell discoveries, Pemex’s transfers to the federal government grew to more than a third of the government’s annual fiscal revenues (Secretaría de Energía 2007). The government’s fiscal reliance on Pemex can be observed in the performance of the NOC in a number of ways. First off, it is observable in Pemex’s loss of its engineering and technology capabilities. With the onset of the 1982 debt crisis, Pemex’s production was kept steady with no new investment in infrastructure or exploration budgeted (Mares 2009; Puyana 2006). Rather, Pemex was used by the PRI government as a “cash cow” to pay off national debts. This contradictory relationship involving divergent interests is endemic to Pemex and its functions, and yet for reasons explained below market Mexicans rejected reforms to Pemex, including privatization, during the neoliberal reform period of the 1980s and 1990s (Teichman 1995: 121-128, 2001).

Remarkably, Pemex executives gave first-hand evidentiary accounts of the NOC’s inefficient operations, albeit on condition of anonymity. It might be expected that employees of an NOC with a well-established history of political influence would simply promote government propaganda. However, this is not the case with Pemex, which

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209 Reconfirmed in author interview with Víctor Carreón Rodríguez: Mexico City, January 2011.
210 Author interview with Duncan Wood: Mexico City, January 2011.
211 Author interview with David Shields: Mexico City, January 2011.
212 Author interview with anonymous: Mexico City, January 2011.
draws a sharp contrast to what I experienced in Brazil whenever I asked experts questions about Petrobras. During my fieldwork in Mexico, I found that executives were quite willing to discuss the inefficiencies of Pemex, including how the NOC’s interests have, for years, been in (divergent) conflict with those of the government. Executives spoke of having inadequate control over the budgetary and investment decision-making process. The perception of these executives is that the political forces that control the NOC have also guided corporate governance. On the one hand, executives said that because the government is Pemex’s owner, manager, and regulator, there has been almost no effective oversight of the company. On the other hand, these same executives stated with optimism that a new pattern of more rational decision-making had been put in place following the 2008 reforms under Calderón. Nevertheless, such optimism was qualified by a more pessimistic tone taken by other experts toward the 2008 reforms.

Permissive (exogenous) conditions (early-1980s):

By the late-1970s, Mexico’s economy faced challenges tied to the international petroleum boom cycle. The peso experienced strong real appreciation over the period 1977 to 1981 (Ibarra 2008). Appreciation of the peso brought exchange rate crisis and detrimental

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213 Author interview with anonymous: Mexico City, January 2011.
214 In author interview, David Shields (Mexico City: January 2011) elaborated on the continuing politicization of Pemex: “The laws, regulation and oversight get in the way of reform. Reform was supposed to be about more flexible contracts and incentives for contractors. Implementation is the key problem. There’s no political will, no belief in Pemex, no belief that there is another Cantarell, no foresight, no ambition. Pemex officials have come to a point where they don’t want to make decisions. And then there is the case of 1999 commonly referred to as “Pemex-gate.” Rogelio Montemayor of Pemex was found to be transferring Pemex funds to PRI candidate Francisco La Bastida. The result has been more oversight of Pemex. But as a result, officials have a disincentive to work and take risks. The concern is public accountability and a fear of being blamed if something goes wrong.”
effects on the balance of payments characteristic of Dutch disease (Bresser Pereira 2010). By 1981, imports had driven Mexico’s trade deficit to US $3.7 billion, and the peso had become significantly overvalued (Ibarra 2008). Not only had an enormous oil windfall been spent, but also the state had simultaneously borrowed heavily. The politicization of hydrocarbons had driven state expenditures far past sustainable levels. In response, trade reforms were undertaken to reduce the anti-export bias of the protection regime and to increase industrial efficiency (Ros 1994). By 1980, Mexico’s structure of trade had been transformed into a diverse profile of manufacturing exports. This shift in the structure of trade draws a contrast to 1960 when these trade sectors were just a small percentage of overall exports. The more mixed strategy in place by 1980 set the stage for an eventual dismantling of ISI and for the shift to an export-led development strategy in the late-1980s.

At the outset of the 1980s, Mexico was on the brink of major structural economic change. After another international petroleum price boom between 1979 and 1980, Mexico’s economy began to experience a series of shocks. At the time, the US and European countries raised their international interest rates, suddenly causing Mexico’s expansionary strategy financed by oil revenues to be put in serious jeopardy. After a slight downturn in oil prices in 1982, and ensuing capital flight, this combination of circumstances drove Mexico into debt default. This series of events marks the first permissive condition in my critical juncture framework. Once it defaulted on its debts in 1982, Mexico dealt with economic adjustment for the remainder of the 1980s and 1990s (World Bank 1995: 181). Guided by technocrats, PRI Presidents Migeul de la Madrid (1982-1988), Carlos Salinas (1988-1994), and Ernesto Zedillo (1994-2000) carried out a
series of major structural reforms (Camp 2007; Centeno 1997). Macroeconomic stabilization changed the course of fiscal and monetary policy and saw the emergence of new trade policy. Notably, the centralized PRI government carried out these measures initially in the absence of any major political opposition, but over time that opposition began to mount.215

Under President Miguel de la Madrid (1982-1988), Mexico adopted orthodox measures in 1983. But macroeconomic conditions soon became more adverse as a consequence of debt overhang (Ibarra 2008). The debt crisis had lethal effects on the current and capital accounts of the balance of payments (Ros 1994). Major steps were taken to open up trade, to privatize major segments of the economy, and to engage in significant reform of the tax and expenditure frameworks.216 During the first adjustment period, fiscal adjustment relied on sharp cuts in public investment and public sector employee layoffs (Aspe 1993). Even so, the economy remained heavily dependent on volatile oil earnings and foreign exchange from subsidized manufacturing exports. Dependence upon these sectors was associated with a growing current account deficit and abrupt changes in private capital flows (Ros 1994).

In August 1985, a new collapse of the foreign exchange market took place (Aspe 1993). Furthermore, with the 1986 international oil price bust, declining prices were reflected in the value of the peso, in the terms of trade, and in oil revenues, which soon deteriorated to one-third of their 1980 levels (Auty 2001; Ros 1994). These conditions, which had been causing serious macroeconomic disturbances since the mid-1970s,

215 Author interview with Jorge Chabat: Mexico City, January 2011.
216 Author interview with Aldo Flores Quiroga, Assistant Secretary, Secretaría de Energía: Mexico City, January 2011.
resulted in “sudden stops and trade shocks” that necessitated IMF support (Eifert, Gelb, and Tallroth 2002). The mid-1980s marked the beginning of a two-decade-long relationship between Mexico and the IMF (Teichman 2001). Mexico worked closely with the IMF, and was influenced by IMF policy as it navigated financial instability throughout the 1980s and 1990s, as illustrated below in Figure 13.

**Figure 13** – Transactions between Mexico and IMF (1984-2007)

![Transactions between Mexico and IMF](source: IMF Government Statistics)

Economic crisis reinforced the need for reform in 1986, when international oil prices plummeted from $25 to $12 per barrel and the deficit rose from 8 percent to 15 percent of GDP, erasing earlier macroeconomic stabilization efforts (Auty 2001; World Bank 1989). The collapse in oil prices led to a loss of export and fiscal revenues totaling approximately 7 percent of GDP (Ros 1994). These external circumstances created a conflict between the policy objectives of structural adjustment versus the maintenance of
a low exchange rate for the peso (Ramirez 1994). Altogether, the collapse in real oil prices, and the consequent balance of payments and fiscal constraints caused leadership to prioritize currency stability over stabilization objectives (Ros 1994). However, this short-term strategy came at a cost as demonstrated by the onset of near-hyperinflation in 1987. This period of debt crisis and hyperinflation, along with the plunge in international oil prices, mark the second and third permissive conditions in my critical juncture framework.

*Hydrocarbon sector development policy reforms of the 1980s and 1990s:*

President de la Madrid took additional steps to stabilize the economy in December 1987 when the *Pacto de Solidaridad Económica* (PSE) was struck between the Mexican government, business actors, and labor unions for new price, tariff, and wage standards (Pastor and Wise 1994; Teichman 1995). Of note is that the PSE policies were the result of a negotiated policy, unlike in Argentina and Brazil, where price and wage freezes were imposed by government decree.217 Continued economic instability over the course of his tenure also prompted de la Madrid to divest of more than half of Mexico’s nearly 1,200 SOEs and to reform remaining SOEs. Nonetheless, because labor unions continued to be important to the PRI’s support base, reforms undertaken to certain politically important

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217 As explained by Pastor and Wise (1994), the PSE put forth a comprehensive attack on inflation. In contrast to previous reforms, the cornerstone of the PSE was major fiscal reform that turned a primary fiscal deficit of 12 percent of GDP in 1982 into a surplus of 6 percent of GDP in 1987. The government conducted a large initial devaluation and deindexation that imposed a freeze on wages, prices, and the exchange rate followed by continuous sliding adjustments. The PSE was part of a broader program to modernize, deregulate, and open the economy. The PSE temporarily restored macroeconomic stability, and this turnaround was accompanied by new lending from the IMF and from international banks. However, even with the liquidity of new loans, the continued threat of hyperinflation forced additional changes in policy.
SOEs were limited in scope. Significantly, de la Madrid also targeted Pemex for reform. At the time, Pemex and its union had grown to become “a state within a state” (Stojanovski 2012). De la Madrid set out to reduce the expenditures of Pemex, and to restructure the NOC’s finances. But financial austerity imposed upon Pemex in the 1980s had major drawbacks, as it affected all aspects of Pemex’s expenses, including investment. The lack of urgently needed investment exacerbated a scaling-down of projects at Pemex. As a consequence of these measures, Mexico once again became a net importer of gas and petroleum products after 1985 and 1989, respectively (Stojanovski 2012).

In summary, early on in crisis, the PRI adapted to the neoliberal challenge with considerable success, but notably, at the expense of Pemex. Beginning in the mid-1980s, the party abandoned ISI and oversaw a substantial liberalization of the Mexican economy (Kaufman et al. 1994). Presidents Miguel de la Madrid (1982-88) and Carlos Salinas (1988-94) brought a large number of reform-minded technocrats into the government (Camp 2007; Centeno 1997; Williamson 1994: 11-28). Both presidents took advantage of the PRI’s centralized leadership, to carry out a set of far-reaching economic reforms (Kaufman et al. 1994). This met with resistance from organized labor and party leaders, but it did not prevent change (Teichman 1995, 2001). The PRI’s reaction to the 1982 debt crisis and subsequent reforms is unique among political parties in Latin America. The PRI was forced to adapt to a context of political liberalization and increasingly competitive elections in the 1980s and 1990s. As a governing labor-based party, the PRI faced a number of programmatic and coalitional challenges that became more apparent under the leadership of Salinas (Levitsky 2001).
Productive conditions and outcome (1980s-1990s):

Following the election of Carlos Salinas in 1988 the pace of market reforms increased in Mexico. By the late-1980s, Mexico began to experience a gradual realignment of its ruling coalition that diminished the public sector’s importance to PRI leadership’s support base (Pastor and Wise 1994; Williams 2001; World Bank 1995). Economic events combined with coalition realignment underway in Mexico to create a political opening for President Salinas to be able to rely on technocrats intent on reducing the influence of Mexican state in the economy (Teichman 1995). Early on, through the provisions of the Brady Plan (1989), Salinas negotiated a debt relief agreement with international commercial banks and oversaw acceleration of sectoral deregulation and privatization. These measures were intended to further strengthen the capital account position and to make trade reform and exchange rate policy more sustainable (Ros 1994). These changes, including the election of Salinas, were met by the first and second of four productive conditions in Mexico: the globalization of world production through the reintroduction and acceleration of market economics; and the general rise of neoliberal ideology and the worldwide proliferation of this view via the influence of IFIs.

Under Salinas, the PRI coalition was partially reconsolidated after those opposed to PRI-led market reforms switched their support to the new left party, the PRD. Given that opponents of neoliberal reform were not counted among Salinas' winning coalition, this made the political costs of such reforms lower than they had been during

218 The possibility of private participation in the hydrocarbon sector was revisited during the Salinas presidency as part of the Plan Nacional de Desarrollo (1989-1994). México: 31 de mayo de 1989.
219 Deemed illegitimate, the 1988 election saw its share of detractors from traditional PRI politics. During the campaign, the Pemex union head supported Cuauhtémoc Cárdenas, the leftist son of the Mexican president who created Pemex and was a perennial advocate for unwavering state control over the firm (Stojanovski 2012).
the 1982-88 sexeño. Salinas was therefore able to address certain structural costs and inefficiencies in the hydrocarbon sector. He quickly took aim at the oil workers union, for reasons of neoliberal orthodoxy and retribution. Union leaders were jailed for corruption including the head of Pemex in 1992. Salinas then pursued a variety of other reforms to Pemex. This included reduction of the power of the union, elimination of 30 percent of the Pemex workforce, liberalization of domestic prices for petroleum products, and minor liberalization of restrictions against foreign participation in drilling and petrochemicals (Stojanovski 2012). Government cuts to Pemex were not without drawbacks, as it affected all aspects of Pemex’s budget, including investment. As a result, Mexico once again became a net importer of gas and petroleum products after 1985 and 1989, respectively.

In the early-1990s, reform in Mexico under Salinas took a dramatic turn as a result of negotiation of the North American Free Trade Agreement (NAFTA). Sectoral reforms gained further momentum under the Salinas administration with the negotiation

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220 As Teichman (1995) explains, electoral and party changes constitute the last and clearest type of evidence of a coalition shift within the PRI. In response to the shift in policies pursued by de la Madrid, many old-line PRI supporters left the party to support Cuauhtemoc Cardenas, a son of the first PRI president. Cardenas created the PRD and was its candidate in the presidential elections of 1988. His support base was chiefly composed of peasants and workers—among them many opponents of SOE reform who had previously supported the PRI. The right wing opposition PAN had advocated many of the policy changes introduced by Salinas.

221 Author interview with Aldo Flores Quiroga: Mexico City, January 2011.

222 In 1989, el Reglamento de la Ley para Promover la Inversión Mexicana y Regular la Inversión Extranjera (16 de mayo) established new foreign investment regulations. Under these regulations: (1) all upstream ownership, exploration and production rights to hydrocarbons remained under state monopoly, as did the refining of petroleum and manufacturing of basic petrochemicals; (2) retail trade in liquefied petroleum gas remained the exclusive right of the Mexican Nation; (3) foreign ownership not to exceed 40 percent of a given enterprise in the manufacture of secondary petrochemical products was permitted; and (4) majority foreign ownership of hydrocarbon drilling operations became subject to approval.

223 Per author interview with David Shields (Mexico City, January 2011): “By the early 1990s, the Mexican government (Salinas) became unhappy with Pemex and saw it as an obstacle to integration. This view was shared by technocrats, by the US, and by the IFIs. Under Salinas and Zedillo, the right thing to do was to privatize. Ever since, there has been a pervasive opinion that changes are needed.”
of NAFTA.\textsuperscript{224} Salinas was effective at constructing policy, distributive, and legislative coalitions within the PRI to push through privatization of the telecom sector by means of his effective use of corporatist and clientelist mechanisms of political control (Teichman 2001).\textsuperscript{225} However, his efforts did not have the same effect on the hydrocarbon sector. From a perspective of coalitional analysis, Salinas was unable to garner sufficient support from within the Pemex union or the PRI itself in order to amend the constitution and open Pemex to private ownership.\textsuperscript{226} In fact, according to Teichman (1995), bureaucrats and oil workers grew concerned that after the reorganization Pemex would be sold off, leading to layoffs. As a result, resistance to privatization from both Pemex workers and Ministry of Energy bureaucrats became fierce during the presidency of Salinas. These same groups formed an opposition coalition with the PRD to counteract the privatization of Pemex,\textsuperscript{227} which produced a stalemate in Congress.\textsuperscript{228}

From 1990 to 1994, Mexico grew at an annual average of 3.8 percent, ahead of the region and the world at large. The rebound in growth was aided by anticipation over the forthcoming NAFTA. From the perspective of PRI technocrats, regionalism and NAFTA were viewed as sound solutions to a number of persistent development problems.

\textsuperscript{224} In 1992, Pemex was reorganized into four business units in order to improve clarity in the company’s cost structure (Palacios 2002). To do so, the Salinas government initiated \textit{el Ley Orgánica de Petróleos Mexicanos y Organismos Subsidiarios} (16 de julio), which reorganized Pemex into four separate entities: (1) Pemex-Exploración y Producción; (2) Pemex-Refinación; (3) Pemex-Gas y Petroquímica Básica; and (4) Pemex-Petroquímica.

\textsuperscript{225} Per author interview with Jorge Chabat (Mexico City, January 2011): “In terms of institutions, in 1991, the PRI has an overwhelming majority in Congress, and this allowed Salinas to change the rules. This is what it would take again for there to be oil sector reforms.”

\textsuperscript{226} Per Article 135 of the Mexican Constitution: Changes to an ordinary law require a simple majority in Congress, namely 50 percent of votes cast. In contrast, changes to the Constitutions require a supermajority of votes in Congress, namely two-thirds of the votes in each chamber plus the approval of a majority of state legislators.

\textsuperscript{227} Author interview with Sigrid Arzt Colunga, Comisionada del Instituto Federal de Acceso de Información y Protección de Datos (IFAI): Mexico City: January 2011.

in Mexico, in particular the debt. NAFTA took effect on January 1, 1994. President Salinas justified Mexico’s constitutional reservation to the NAFTA by stating: “Our constitution will not adjust itself to the Free Trade Agreement. The oil industry will continue to be the exclusive patrimony of Mexicans.” NAFTA clearly stipulates Mexico’s exclusions to private actor participation in its hydrocarbon sector, including the scope of Pemex, restrictions against foreign ownership of assets and industry, and other forms of investment:

The Mexican State reserves to itself the following strategic activities, including investment in such activities and the provision of services in such activities: (a) exploration and exploitation of crude oil and natural gas; refining or processing of crude oil and natural gas and production of artificial gas, basic petrochemicals, and their feedstocks and pipelines; (b) foreign trade, transportation, storage and distribution, up to and including the first hand sales of crude oil, natural and artificial gas, and basic petrochemicals (North American Free Trade Agreement, December 17, 1992).

As indicated above, “the NAFTA negotiations demonstrate the importance of oil as a material capability for Mexico.” Moreover, his apparent position concerning the hydrocarbon sector in the NAFTA agreement corroborates with future claims made by Salinas himself. And yet, others who I interviewed expressed regret that oil was excluded from NAFTA.

230 According to Palacios (2002), as a result of the liberalization of government procurement rules, half of Pemex’s supply contracts were opened to North American companies in 1994 when NAFTA went into effect. The remaining half of all government supply contracts were then opened to NAFTA partners in 2002. Through this form of liberalization, foreign companies are allowed to participate as fee-based contractors with Pemex in exploring and developing reserves.
231 Author interview with Alicia Puyana Mutis: Mexico City, January 2011.
232 “We fought to keep oil under control of the Mexican government… [Talk of Pemex privatization] came from a faction that was trying to recover the privileges they had unlawfully held for years by controlling Pemex’s investments program and the right to appoint most of its directors” (Salinas de Gortari 2002: 498-499).
233 Per author interview with Víctor Carreón Rodríguez (Mexico City, January 2011): “Counterfactually speaking, it was a mistake to exclude oil from NAFTA. Had oil been included, it could have created better terms of trade for Mexico and led to greater interdependence between Mexico and the US.”
Shortly after NAFTA’s implementation, macroeconomic problems returned to Mexico in the form of renewed borrowing in excess, currency appreciation, and flat growth. Economic threats were met by a complex political situation that included a rebel uprising in Chiapas in 1994 in reaction to NAFTA. Macroeconomic collapse ensued in the Tequila Crisis of 1994-1995, which required a massive IMF bailout, illustrated in Figure 13. GDP declined by 6.2 percent in 1995, and the financial system collapsed and required massive government intervention (Ibarra 2008). The PSE was brought to an end in 1995, in the aftermath of the subsequent 1994-95 peso crisis. The 1994-95 Tequila Crisis and resulting IMF bailout distinguish Mexico for the strong presence of the third productive condition in my framework, i.e. the extent of crisis and hyperinflation.

Reforms were mixed during PRI presidency of Ernesto Zedillo despite the fact that he upheld what had then become a pervasive opinion among elites in favor of privatization (1994-2000).234 Hydrocarbon sector reforms advanced warily under Zedillo’s watch as progress was clouded by considerable setbacks. Nonetheless, certain steps were taken. In 1995, the government of Ernesto Zedillo took steps to open the hydrocarbon sector to private investment.235 Also in 1995, a new regulatory framework for hydrocarbons to be administrated by the newly reformed Ministry of Energy was put forth.236 Yet, due in part to an increasingly contentious political climate, the Pemex union regained some of its power and influence and even managed to increase the Pemex labor force by 20,000 under Zedillo’s leadership.237 Consequently, for a number of reasons, including ideology, neither Salinas nor Zedillo were able to advance major

234 Author interview with David Shields: Mexico City, January 2011.
235 Through el Decreto por el que se reforman y adicionan diversas disposiciones de la Ley Reglamentaria del Artículo 27 Constitucional en el ramo del petróleo (11 de mayo), the petroleum law was amended to permit concessions to private actors in the midstream and downstream segments of the hydrocarbon sector.
236 el Reglamento Interior de la Secretaria de Energia (1 de junio)
237 Author interview with David Shields: Mexico City, January 2011.
privatization reforms to the upstream hydrocarbon sector. Based on this policy outcome, the fourth productive condition in my framework, i.e. the ascension of a transformative outside political actor capable of overthrowing the status quo, is therefore absent in the case of Mexico during the 1990s.

In summary, if the 1982 debt crisis were a dark cloud then coalitional realignment would prove to be a silver lining for Mexican politics and pluralism. The debt crisis, followed by repeated economic stops, and the steady desertion of ISI gradually corroded the bargains that had sustained seven decades of PRI political dominance (Williams 2001, 2011). Recurrent fiscal crises limited the ability of PRI governments to distribute to a rapidly growing and ever more urban population. As distance grew between the PRI and the urban sector, more urban voters and business owners began to support the right-of-center PAN (Loaeza 2003). On the left, in response to the dismantling of ISI by PRI governments, labor unions and social movements began to shift their support to the rising PRD (Bruhn 2010). Economic reform and its political consequences gave rise to

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238 Among the experts I interviewed in Mexico City in January 2011, most of them noted serious constraints to sectoral policy reform to hydrocarbons, with ideology being mentioned in passing repeatedly. The consensus was that Mexicans are still very distrusting of foreigners. Per David Shields, the double banking crisis is a factor. In 1982, there was nationalization of banks. Then Salinas privatized banks into foreign hands. Again, per Shields, for ordinary people: “Access to Pemex is through the union or through political connections. Ordinary people do not understand the oil industry. For them, Pemex is better than the IOC alternatives. Pemex is understood to have bailed out Mexico in 1995. It is seen as a pillar in the economy.” Shields’ perspective is reinforced by Serra (2011): “The historical nationalization of the oil industry in 1938 is a source of great pride to many Mexicans. To date, the state-owned character of the company continues to symbolize the sovereignty of the Mexican state over private greed and foreign imperialism. Any mention of reform arouses passions, both with the political elite and with ordinary citizens. Accordingly, there is much ideological resistance to changing the corresponding legal framework. In addition to an ideological opposition to reform, there also exists an entrenched class of interest groups who oppose any changes to the status quo. For these reasons, recent administrations have avoided a battle to change the legislation regulating the oil industry. Pemex could [therefore] be considered the “third rail” of Mexican politics: if you touch it, you’ll die.”

239 As Bruhn (2010) and Williams (2011) point out, rural-to-urban migration provides further evidence of a coalition shift. The PRI had traditionally counted on strong rural support. However, the proportion of the Mexican population living in rural areas fell sharply, from more than 40 percent in 1970 to about 26 percent in 1992. Under de la Madrid, the PRI began to revise its program to attract support from the growing urban commercial and middle classes, whose interests were not consistent with those who benefited from ISI.
the development of a multi-party system that increased the number of groups participating in politics. The center of politics therefore began to shift away from the centralized PRI government toward the broader electorate, and this process was facilitated by institutional decentralization (Gibson 1997; Schiavon 2006). Altogether, these events posed an opportunity for the reconfiguration of political coalitions in Mexico (Levitsky 2001).

Further evidence of a coalitional shift is observable in fiscal decentralization, which became a policy of the PRI under de la Madrid and Salinas, and Zedillo. Through the broader process of decentralization, new resources contributed to a realignment of politics and policy at the state and local levels of government. In terms of fiscal transfers, the federal government decentralized resources to local governments. In policy terms, the inability to deliver economic growth and guaranteed access to public offices led the PRI to find other means of placating growing discontent. The party created the Sistema Nacional de Planeación Democrática (SNPD) in 1983 to help coordinate municipal, state and national functions (Rowland and Caire 2001).

Mexico’s process of fiscal decentralization carried out during the 1980s and 1990s has produced mixed results and unintended consequences. Decentralization did its part to

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240 The causes of actions taken by the PRI government to decentralize inter-governmental fiscal relations beginning in the 1980s remain a subject of scholarly debate. One position contends that decentralization was undertaken as a means of preventing the PRI’s political decline (Rodríguez 1998). Structural reforms undertaken during the 1980s coincided with increased political competition in both local and national elections, which began to challenge the PRI’s hold on power (Cornelius, Eisenstadt and Hindley 1999; Rodríguez 1998). As the PRI lost its ability to deliver economic growth, so too did it lose its capacity to distribute the fiscal resources that guaranteed it control over access to elected offices. Concurrently, the federal government moved to relinquish some control of tax expenditures and policymaking to local governments. The drafting of a Fiscal Coordination Law in 1980 was the first step in a process to make fiscal transfers more predictable and more transparent (Elizondo and Santiso 2006).

241 Rowland and Caire (2001) point out further that, first a mechanism of political and fiscal control, the SNPD gained prominence in the late 1990s when the PRI lost control of the national Chamber of Deputies in 1997. In 1998, state and municipal governments were given education, healthcare, and public security responsibilities after the opposition-dominated Congress was inaugurated. State spending now accounts for nearly 24 percent of total government spending, while municipalities account for just over 5 percent.
transform the PRI’s formerly centralized and exclusive policymaking process because it inserted state and local interests into national politics (Cornelius, Eisenstadt and Hindley 1999). In evidence, in 2000, the most important contenders for the presidency had all been governors (Courchene, Diaz-Cayeros and Webb 2000). Policymaking has become more complex under decentralization. This is because it is now more difficult to align the interests and coordinate the strategies of the different levels of government (Rodríguez 1998; Williams 2011). As PRI hegemony declined, local interests asserted themselves into the fiscal policymaking process, increasing the subnational focus of policymaking.

By the same token, Mexico’s form of fiscal decentralization may be considered incomplete because it fails to provide subnational governments with taxing incentives (Pardinas 2012). Decentralization has allowed states and municipalities to significantly increase their tax revenues over the last two decades, but not by way of explicit taxation. The vast majority of new state and local revenues are the result of mandated fiscal transfers from the federal government. This revenue source has actually discouraged states from promoting the growth of their own tax bases. With limited political will for taxing local fiscal bases, the distribution of federal resources has become a zero-sum game (Pardinas 2012). Any additional resources obtained by one state represent a loss for other states. Therefore, states continue to lobby for increased fiscal transfers while their efforts to increase local tax collection remain weak, which perpetuates the narrow capacity of the federal state.

By the mid-1990s, the PRI’s clientelistic and exclusive form of politics came under increasing threat from a number of liberalizing forces. Following the Tequila crisis in 1995 and the Asian crisis in 1997 economic stabilization was carried out against a
changing political landscape. The most significant disruption in the trajectory of PRI-dominant rule in Mexico occurred in 1997 when in elections the PRI lost its majority in the Chamber of Deputies. The 1997 election results transformed a clientelistic and exclusive political regime into one in which a multi-party system activates the horizontal accountability intended by the 1917 Constitution. As a result, post-1997 policymaking became less reflective of the preferences of presidents (Camp 2007; Lehoucq et al. 2005).

The legislative elections of 1997 and the presidential elections of 2000 both marked political milestones as the PRI finally lost its simple majority in the lower house of Congress and then the presidency. The PRI remained the largest of the parties in Congress, but persistent clashes with the opposition ensured that Congress would no longer be a passive branch of government. The challenge of Mexico’s emerging pluralist political system in the 1990s has been to create the foundations for governance and stability after a long period of highly centralized presidentialism (Pardinas 2012: 227). In this more pluralistic political institutional setting, distributive issues have remained constant concerns. By the same token, recent cases of policy reform continue to reflect a persistent legacy of PRI dominance and corporatism. While the old habits of opposing reforms are slow to die out, what has changed since 1997 is that Congress began to make use of its fiscal powers (Diaz-Cayeros 2006). The post-1997 Congresses have exercised tighter budgetary controls over Pemex. Meanwhile, from Pemex’s perspective, political pluralism has improved intrastate relations, as indicated by those who I interviewed.242

242 Author interview with Jaime Suárez Garza: Mexico City, January 2011. Speaking in terms of the reforms of 2008, Garza expressed that, “with the four consejeros independientes there has been improved relations between the Pemex Board of Directors and the parties seated in Congress, which has translated into greater accountability and innovation.”
Conclusion:

This chapter has explained intertemporal variation in Mexico’s hydrocarbon sector development policy with emphasis on the market reform period of the 1990s. A narrow level of state capacity explains Mexico’s hydrocarbon sector SOC over time and in particular, the evolution of Pemex into a revenue deficient and technologically incapable NOC. The chapter has also explained the proposed reforms to deregulate and liberalize Mexico’s hydrocarbon sector SOC during the 1990s, and Mexican society’s rejection of a proposal to privatize Pemex. The chapter finds that the factors that caused reform to be blocked are narrow state capacity in combination with a pro-state reform coalition.

Following Karl (1997) and Mahoney and Thelen (2010), evolution of hydrocarbon sector SOC in Mexico shows that it is possible for historical institutional preconditions to persist in a predictable manner. Under these conditions of institutional continuity, reforms that propose to change the structure of institutions, such as those that sought to liberalize Mexico’s hydrocarbon SOC in the 1990s, are likely to be blocked by established interests. Moreover, outside of reform periods, these same interests protect policy stability and institutional continuity.

The conventional wisdom is that Mexico’s inability to privatize Pemex remains grounded in nationalist sentiments and the Revolution of 1910. This wisdom is half-correct. To serve their own interests, Mexico’s government officials have effectively politicized the hydrocarbon sector and Pemex by tying it to nationalist sentiment and to notions of sovereignty. Mexico’s proximity to the US and its complicated relations with the US have enabled Mexican politicians to promote resource nationalism to worthwhile
effect. Article 27 of the Mexican Constitution grants the federal government exclusive legal authority to produce hydrocarbons for the welfare of the nation. However, for decades, the federal government has based its decisions about hydrocarbon sector SOC on short-term political objectives. Meanwhile, an antiquated PRI bureaucracy oversaw the emergence and preservation of a technologically inefficient hydrocarbon sector, and a revenue deficient Pemex. In other countries, long-term strategic analysis rests with the hydrocarbon regulator and with the ministry that sets energy policy. But in Mexico this function had not been developed with any competent authority prior to the reforms of 2008, which, for the first time, created the independent Comision Nacional de Hidrocarburos (CNH). A separate Energy Ministry was not created until 2007 under Calderon.

The case study research shows that a pattern of narrow state capacity is present in Mexico, distinct from Argentina and Brazil. For seven decades, Mexico’s federalist political system was centralized, clientelist, and non-competitive under PRI rule. Moreover, by exchanging clientelist policies for support from narrowly based corporatist sectors, the PRI relinquished the federal state’s right to tax society. Consequently, the PRI proved incapable of building a modern, professional state with a high quality bureaucracy capable of extractive capacity.

In addition, the Mexican case is unique for the PRI’s efforts at coalition building and for the results. As illustrated by the outcome its effort at hydrocarbon sector development policy reform produced, i.e. policy rejection, the PRI was not successful in the coalitional realm. Efforts to replace the corporatist coalition with a territorial coalition were fiercely resisted by union leaders. As a result, attempts to broaden the PRI
base to incorporate the middle and urban informal sectors were only partially successful. After 1982, the PRI went into gradual electoral decline. The 1997 electoral outcome introduced a period of divided government that remains in place today. Divided government and decentralization greatly weakened the path dependence of PRI dominance. This trend was confirmed by the victory of PAN candidate, Vicente Fox, in the presidential elections of 2000. Mexico’s transition to democracy brought two successive PAN presidencies. Under these PAN presidencies, the PRI, many of whose legislators come from rural and labor corporatist organizations, joined with the PRD to thwart second-generation sectoral reforms such as those to Pemex.

On a more optimistic note, Mexico’s broader liberalization program was a relative success in economic terms, thanks in part to hydrocarbon subsidies. Mexico’s response to its 1982 default involved transition to a liberalized trade regime that took place with efficiency. Per Ros (1994), two main factors account for this relatively smooth transition in development strategy in Mexico. First, is the relative success of Mexico’s previous form of ISI. ISI effectively modified comparative advantages in favor of manufacturing and infant industries, albeit through subsidies made possible by Pemex. Second, the government responded to macroeconomic imperatives successfully through protection of the peso. Exchange rate protection served to facilitate the adjustment of industrial firms to a more open economy and to redirect the specific dislocation costs of trade liberalization into the broader and more apparent costs of overall macroeconomic adjustment. But eventually this process contributed to further radicalizing the reform process, which proved unsustainable as proven by the Tequila Crisis of 1994-1995.

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243 It was reinforced further through the election of PAN presidential candidate Felipe Calderon in 2006.  
244 Author interview with Sigrid Arzt Colunga: Mexico City, January 2011.
Institutional constraints and interests also shaped the path of reform. Policy reforms aimed at deregulation and liberalization ignited considerable resistance from Congress and from societal interest groups. One of the most significant cases of resistance originated from the hydrocarbon sector, where corporatist interests were the most extensively organized under PRI rule. These corporatist interests successfully blocked hydrocarbon sector development policy reforms. The reform period changed the relationship between the popular sector and the state. The legacy of initial incorporation continued in some important respects, but it unraveled in others during the neoliberal reform period under de la Madrid and Salinas. The weakness of the popular sectors has kept them from being effective advocates for an activist state in recent decades. For example, Mexican unions failed to impede one of the most sweeping social security privatizations in Latin America (Brooks 2009). In the rural sector, peasants were unable to muster broad-based resistance to Salinas’ bid to legally terminate the process of land redistribution granted by Cárdenas, which removed the state from yet another area of economic intervention. Yet, given these contradictory examples, it is still generally recognized that the PRI’s ties to labor helped it achieve relatively rapid stabilization without any major opposition to market reforms (Teichman 2001).

Finally, Pemex itself paid the highest price for the reform period of the 1980s and 1990s in Mexico. Pemex has continued to subsidize Mexico’s other productive sectors and the federal government itself. For Pemex, financial and industrial development has been burdened by over regulation, price and tax control, limited business management and heavy taxation, all of which have discouraged strategic investment. More than 68 percent of Pemex’s total income goes to the Federal government, limiting its ability to
compete in the challenging domestic and global markets, in turn resulting in a decline of production and undercapitalization (Laguna 2004). Pemex has a dual role to play; it must generate revenues to finance economic growth as it also must generate an investment stream to reproduce and expand its productive and technological capacity. These tasks may be in conflict with one another. For instance, excessive taxation could, as seems to be the case, bring about the overexploitation, underinvestment, and the shortening of life of hydrocarbon reserves. If, instead, the strategy adopted was to prolong the life of the known reserves, the state would be forced to look for alternative sources of tax revenue. Hydrocarbon SOC is therefore a question of how to distribute petroleum rents, which is ultimately a matter of political power.245

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245 In the words of Wood (2010: 870): “A once proud national champion is being brought to its knees, and political stalemate will likely prevent its reinvention.”
Ch. 7 – Conclusions

In cross-national terms, among hydrocarbon producing countries, a privatized SOC characterized the first half of the twentieth century, while a nationalized SOC characterized the second half of the twentieth century. Given the temporal trends in the data, a first thought might be that this variation is due to international factors—namely, the structure of the international oil market and policy convergence via diffusion. Indeed, these are standard explanations for the predominance of private foreign ownership during the first half of the twentieth century and its replacement with state ownership during the second half of the twentieth century. Yet, as this research has shown, while the leaders of developing countries are undoubtedly subjected to enormous international constraints, they must also contend with some significant constraints at the domestic level. This analysis has built upon the thesis of Garrett and Lange (1991), which considers the limits of national government policy autonomy in an age of globalization.

International arguments are based on the premise that international constraints are more formidable and influential than those of a domestic nature. But there is no a priori reason to make such an assumption. In fact, the divergence in hydrocarbon sector development policies in Latin American countries in the early 1990s directly challenges the presumption that an international environment with similar constraints will lead to policy convergence. Privatization remains a divisive political issue across Latin America. The recent electoral success of the left has reignited debates over the state’s involvement in the economy, as in the case of Venezuela’s 2007 constitutional referendum under Hugo Chavez. As documented in the preceding chapters, for a decade or more following the 1980s debt crisis: Argentina opted for privatization; Brazil opted
for flexibilization; and Mexico maintained the status-quo of nationalization. I contend
that one cannot understand this variation without taking domestic politics seriously. The
conventional wisdom that emphasizes the role of international factors has led political
analysts to dismiss the ability of state leaders to make conscious choices, and thereby, to
overlook the effect of domestic political and economic constraints on their decision-
making calculus. More specifically, I argue that leaders in Latin American hydrocarbon-
rich countries pursue development policy for this sector based on the interaction between
two such constraints: (1) state capacity, defined by extractive and technological capacity;
and (2) the configuration of reform coalitions. In sum, my analysis finds empirical
support for the relevance of these factors.

Analysis of hydrocarbon sector development policy reform in Latin America
during the 1990s has important implications for our understanding of several debates in
political science: (1) globalization convergence; (2) the politics of economic adjustment
and reform in developing countries; (3) nationalization and privatization of productive
economic sectors; (4) state capacity; (5) coalitional analysis; and (6) resource curse.
First, it enhances knowledge of the political economy of deeper stage-two market
reforms. It shows that during the reform process, in some cases new actors entered the
political arena as important policy constituencies, altering the SOC of the sector itself.
This varied from one case to another. Second, by explaining timing of reforms, a more
complete understanding of the conditions that restrict the policy influence of financial
and technological pressures is gained. The dissertation therefore contributes to the
literature that questions the survival of domestic politics in times of increasing capital
mobility. Third, this empirical analysis of hydrocarbons makes an important contribution
to the literature on stage-two economic-sectoral reforms because the hydrocarbons sector was of such key importance during the ISI period and is one of the few sectors where state ownership has survived. An understanding of the underlying reasons for hydrocarbon sector reform is thus tied to how the industry evolved and to the institutional structure each state adopted over time and in the midst of critical junctures (Palacios 2002).

The 1990s offered an excellent opportunity to study the impact of institutions on privatization in Latin America. On the one hand, international forces of change common to Latin American countries grew more powerful. On the other hand, organization of the hydrocarbon sector in my country cases diverged, due to institutional reforms. A focus on this time period therefore allowed me to consider institutional continuity and change in Latin American countries in three ways. First, the major features of policymaking were established and then compared, to see if countries experienced differing patterns despite facing common powerful international pressures. Second, the ways that particular institutional features influenced policymaking was examined, with particular attention paid to those characteristics that differed between countries such as intrastate relations. Third, the effects of institutional reform were analyzed, particularly in Argentina, Brazil and Mexico, which saw comprehensive continuity and change in the 1990s.

In this dissertation, I have found that variation in hydrocarbon sector development policy among Latin American country cases with diversified economies is explained by structural, macroeconomic, institutional, and interest-based factors. With respect to structure, national hydrocarbon reserve levels and associated production time horizons
condition the preferences of states. Production time horizons determine the extent to which the government has policy options and whether or not it has the ability to obtain international financing or must turn to private investment.

The research has shown that due to its impact on extractive capacity, structure of national exports is also a determinant of hydrocarbon SOC. In the 1970s, Brazil undertook a long-term process to focus its efforts on self-sufficiency in energy, which it achieved by 2007. Brazil prioritized hydrocarbons, ethanol, and hydropower to satisfy domestic demand, and sought international financing to build or upgrade local refineries as it sought to discover and exploit new hydrocarbon reserves. Thus, prior to and during market reforms, Brazil deliberately created its own opportunities to expand the size of its proven reserves and the overall contribution of the petroleum sector to its economy without foreign capital. Brazil was a major importer of hydrocarbons during ISI. Without petroleum rents, and indeed with a high oil import bill to pay, the Brazilian state identified direct and explicit forms of taxation across sectors, namely agriculture and manufacturing, as the state pursued expansion of a domestic diversified energy sector.

Argentina was a net petroleum importer during ISI. Its main exports were agricultural commodities. The more established economic role of the agricultural sector relative to petroleum meant that the Argentine state has been able to rely on agricultural exports to provide the bulk of its revenue as it set aside hydrocarbons primarily for internal consumption. Countries are more likely not to invest in hydrocarbons when they have a viable source of revenue in the status quo and no additional claims on this revenue because they feel less immediate pressure to generate new sources of revenue (Jones-Luong and Weinthal 2010). Hence, there is not the incentive to develop and expand their
hydrocarbon reserves rapidly or produce them primarily for export. It is precisely for such reasons that Mexico has been able to delay the expansion of its hydrocarbon sector. In sum, my three country cases have not had the same level of budgetary dependence on the petroleum sector; the relative share of the petroleum sector’s contribution to the government budget was much larger in Mexico than in Argentina and Brazil. Hydrocarbon rents accruing directly to the Mexican government are estimated to have between 35 percent and 40 percent of the government budget since the 1970s. Over the same time period, Argentina and Brazil’s governments captured energy rents estimated at between 5 percent and 10 percent of the federal budget.

During the 1990s and first half of the 2000s, Argentina and Mexico shared a few core similarities in terms of their extractive capacities that classify them as weak: Their tax systems were unstable and unreformed, they had no institutionalized limits on spending, and both taxation and expenditures relied heavily on implicit taxes. And yet, this has not precluded some important differences concerning their scope of taxation and the level of expenditures. For example, Argentina relied on agriculture rather than the petroleum sector to provide the bulk of its tax revenue. In the 2000s, Argentina has leveraged its access to hydrocarbon rents primarily as a means to increase its leverage over proceeds from agricultural exports through export taxes. For Argentina, agriculture continued to serve as the main export and garnered big and reliable export earnings throughout the 2000s. The Kirchner government extracted a similarly high level of explicit taxation from the agricultural sector for most of the 2000s, but deemphasized this form of taxation in the petroleum sector. For example, in the 2000s excise taxes from agriculture alone accounted for over 20 percent of the country’s total tax revenue. In
Argentina, exports are also heavily taxed via implicit means. This is particularly the case with the agricultural sector, illustrated by the fact that the Kirchner government has continued using production quotas and price controls via SOEs for cotton and wheat.

Finally, Argentina, Brazil, and Mexico display notable variation in terms of extractive capacity. While Brazil stands out for its impressive record of explicit taxation, Argentina and Mexico have increasingly emphasized indirect and implicit forms of taxation across sectors and deliberately neglected the development of direct forms. The VAT quickly became the largest source of tax revenue. Since the 2000s, with the exception of Brazil, direct taxes have represented a declining share of total revenue. This decline is a function of the continued lack of tax reform, and the absence of administrative reform aimed at raising collection rates and increasing compliance. A key finding of this analysis is that cross-case variation in the institutional capacity of fiscal federalism explains much of the variation in taxation among Argentina, Brazil, and Mexico.

Where macroeconomic factors are concerned, an important change occurred in the global economy in the 1970s and 1980s. In the context of financial globalization, inflationary monetary policy is no longer an option for developing countries due to capital mobility and the changing nature of international lending introduced by the Brady Plan of 1989. For decades, the inflation tax created incentives for governments to extract resources from society using monetary policy rather than traditional taxation mechanisms. This is the key to understanding the underdevelopment of extractive capacity in Latin American countries. As Melo (2010) finds in the case of Argentina, and as is upheld by this research, political instability further contributes to narrow extractive
capacity, and more specifically, inflationary taxation policy. However, under conditions of globalization, international markets punish undisciplined governments that toy with their monetary policy. Therefore, following Melo (2010) “other distortionary mechanisms of revenue extraction seem to be replacing ordinary taxation (for example, the boom in current account (export) taxes).” My research elicits a finding complimentary to Melo’s (2010) conclusion about globalization’s limits on inflationary policy in the developing world. I find that, given fewer options for fiscal policy in the current era, there is therefore increased reliance by the governments of hydrocarbon-rich countries on the foreign exchange, non-tax, and tax revenue generated uniquely by this sector thanks to its ties to the international economy.

Concerning institutions, the 1980s ushered in a period of intensifying external pressures for change in hydrocarbons that were common to Latin American countries. This has involved economic and technological pressures. The maintenance of differing and indeed often divergent institutions in the sector lends powerful support to arguments that nations can and do have dissimilar institutions. Hydrocarbon sector development policy choices in the 1990s in Latin America provide strong support for institutionalist claims that dissimilar institutional arrangements lead to cross-country variation in policy choice. The impact of national-level and economic-sectoral level institutions is visible in two ways. First, despite common powerful economic and technological pressures, Latin American countries pursued increasingly diverse policies for their NOCs. Institutional reforms increased divergence in the organization of the hydrocarbon sector. Moreover, the roles of specific institutional features in policy choices were traced in each country. In particular, the analysis reveals the ways in which formal powers of policy makers, the
degree of separation between the NOC and the political executive, ownership of the hydrocarbon resources, the existence of a legal monopoly and the creation of an independent sectoral regulator permitted, encouraged or constrained policy makers.

Second, institutional arrangements determined the policymaking process. Institutional reform, especially in Argentina and Brazil, was followed by policy changes. Hence not only did major cross-national and temporal contrasts exist, but they can be linked in particular to institutional characteristics. Political regimes with powerful executives and dominant political parties such as Menem in Argentina are likely to have success implementing reforms through a “decisive” institutional arrangement. Regimes with the opposite sort of “resolute” arrangement characterized by a relatively less powerful president and party fragmentation including Collor and Cardoso in Brazil, and Calderón in Mexico require more extensive efforts at coalition building in order to generate reforms. In Argentina, Menem was able to introduce major reforms in a short period of time. In contrast, institutional change in Brazil was a slow and tortuous process, while in Mexico reforms were essentially blocked and rejected. Of note are cross-national differences arising from contrasting patterns of policy implementation that blur the distinction between institutions and policy (Thatcher 1999).

From an institutional perspective, the dissertation finds that policy differences in hydrocarbon sector development continued among Latin American countries, and indeed became more marked after the 1990s. It argues that the dissimilarities found were influenced by the institutional contrasts between countries and shows how specific institutional features impacted policy making in individual country cases, resulting in differing national policy patterns. Moreover, it demonstrates how institutional reforms in
Argentina and Brazil resulted in a break with the previous features of policy making, while a stalemate brought about no reforms in Mexico. By the end of the 1990s, Latin American countries displayed considerable variation across these stages of reform in their hydrocarbon sectors. Across the region, hydrocarbon sector reforms varied in their degree of national regulatory control over market outcomes. Argentina completely privatized its hydrocarbons sector in rapid fashion, without first establishing a regulatory framework to guarantee private competition. Neither was there restriction placed on foreign capital or investment conditions. Argentina thus represents an extreme case of what Murillo (2009) labels a “market-conforming” regulatory content. In comparison, after a more lengthy negotiation of hydrocarbon sector reforms, Brazil approved a partial state monopoly, investment targets, and restrictions on foreign management of the privatized national monopoly, thus preferring a “market-controlling” reform pattern (Murillo 2009). Meanwhile, in contrast to Argentina and Brazil, repeated attempts by Mexico’s leadership to privatize or even just liberalize its upstream hydrocarbon sector were rejected outright, despite the fact that major market-led reforms were approved in Mexico’s telecommunications sector. Mexico illustrates an extreme case of rejection of market-led economic-sectoral reform of hydrocarbons, and the persistence of state enterprise in the face of global pressures for change.

In terms of interests, my coalitional approach to explaining reforms of hydrocarbon sector investment policy in Latin American countries examined the capability of executives in presidentialist systems to organize policy coalitions and distributive coalitions, as well as legislative coalitions if a constitutional amendment is required.
Recent escalations in international petroleum prices created a completely new context for national hydrocarbon sector development policy in Latin America.

**Argentina in the 2000s:**

In 2002, in an impressive recovery in terms of trade, post-2001 crisis Argentina began to experience a new period of export-led growth. This new commodity boom was made possible by a reinvigorated agricultural sector. In the context of a significant international price increase for primary commodities, the Argentine economy registered an average cumulative annual growth rate of 8.2 percent between 2002 and 2007 (IMF). Soybean production has spread throughout the Pampas and to new areas, displacing traditional crops. Soybeans have emerged as one of the most productive and technologically advanced sectors in the Argentine economy. Soy and its derivatives, agricultural manufactures, and industrial manufactures have steadily increased. The following set of factors made this change in export structure possible: (1) peso devaluation and the change in relative prices; (2) international commodity price increases and the expansion of Asian demand; and (3) favorable financial conditions based on a debt restructuring that proved to be more flexible than expected.

Recent shifts in the structure of agricultural production have not been reflected in political representation. In the most recent example of the agricultural sector’s political disadvantage, the urban coalition has successfully managed to redistribute the rents from soybean production to non-soybean-producing provinces. It was not until May 2008 that agricultural interests were able to organize temporally sustained and geographically widespread collective action, in reaction to an executive bill intended to establish a
mobile export tax. President Fernández de Kirchner (PJ) upholds a traditional Peronist bias against the agrarian sector.

On April 16, 2012, Fernández de Kirchner initiated the expropriation of Repsol assets owned in its Repsol-YPF subsidiary. A bill that was months in the making, recommending expropriation of 51 percent of the Spanish subsidiary, was sent to Congress. On that same day, in a dramatic turn by executive decree, Spanish management was summarily thrown out of the Repsol-YPF Buenos Aires headquarters in Puerto Madero, and immediately replaced by newly appointed Argentine management. This move by the government to retake a significant percentage of control over the national hydrocarbon industry demonstrates a major reversal of liberalization policies carried out in the 1990s. Perhaps not by coincidence, the government’s action took place five months after Repsol-YPF had made a major new shale-hydrocarbon discovery in Nequén province. This move to renationalize YPF marks a striking shift in Argentine leadership’s perception of the national interest in contrast to the era of Menem.

The Kirchner government’s economic nationalist position is that, since 1999, Repsol-YPF’s activity in the hydrocarbon industry was at all times in conflict with Argentine national interests. Shortly after 1999, Repsol-YPF ceased the costly activity of exploration for new resources within Argentine territory. Under Spanish management, the company instead devoted its activities exclusively to extracting and exporting already proven resources discovered under federal state ownership. Between 2003 and 2011, Repsol-YPF invested in only eight wells. In contrast, during the 1990s, the still state-owned YPF had reached a yearly exploration average of 117 wells.”

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246 NotiSur, Latin America Data Base
247 NotiSur, Latin America Data Base
Kirchner government’s perspective, hydrocarbon production began a steady path of decline in 1999 due to a lack of upstream investment. Consequently, Argentina shifted from being a net exporter to become a net importer of hydrocarbons in the mid-2000s. Repsol’s perspective is that it was hindered by the Argentine financial crisis of 2001 and by the government’s implementation of steep export taxes in 2002. In any case, by 2011, hydrocarbon imports had become a US$9 billion drain on Argentina’s current account. Meanwhile, as Repsol continued to pay dividends to its stockholders around the globe, it failed to make any new upstream finds until, in that same year, it made the major Vaca Muerta discovery in Neuquén.

The Kirchner government’s 2012 move to expropriate has resulted in a new ownership structure for hydrocarbons. The expropriated Repsol-YPF shares (51 percent of the total outstanding) are now owned by the federal government and the ten provinces that make up the Organización Federal de los Estados Productores de Hidrocarburos (OFEPHI), split 51 percent-49 percent.248 The balance of outstanding shares is split between Repsol, the Eskenazi family of Argentina, and the open market.

_Brazil in the 2000s:_

At the end of 2002, the PT opposition won the presidential election in Brazil. During the presidential campaign, the PT had shifted its rhetoric on privatization from neutral to negative. Luiz Inácio Lula da Silva (Lula) fiercely attacked the flexibilized SOC adopted under Cardoso. The PT had historically opposed the privatization program. However, once he took office, Lula refrained from reversing hydrocarbon SOC, which supports the claim that market reforms carried out in Brazil during the 1990s were more the result of

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248 NotiSur, Latin America Data Base
pragmatism than of ideology. Therefore, it was not a major surprise when the Lula government, despite all of the previous political opposition to the program, and the rhetoric, did not reverse the policy. On the contrary, Lula actually enhanced Brazil’s broader privatization program by extending it to the highway and airport sectors.

Lula kept the hydrocarbon sector’s flexibilized SOC in place until the major rise in international petroleum prices in 2005. The higher oil prices substantially increased the opportunities for oil exploitation in Brazil’s offshore province; Petrobras and IOCs both began to invest in exploration. In 2007, Petrobras identified a very large oil reservoir in the pre-salt geological layer of the Campos Basin. By 2008, Brazil reached self-sufficiency in petroleum, and became a net exporter. The government immediately decided to stop the licensing of the blocks in the pre-salt and ordered a review of the regulatory framework for the development of the pre-salt oil resources. The outcome of that review was an October 2009 proposal the government sent to Congress to establish a new relationship with the oil companies including with Petrobras.

Major new discoveries of oil offshore oil reserves, in combination with increases in international oil prices between 2009 and 2012, have once again changed the government’s preferences concerning the national oil industry. Brazil is now poised to become a substantial oil-exporting country, which raises a number of concerns in times of increasing oil prices. Such conditions have motivated the government to establish a new set of incentives and mechanisms to oversee Petrobras. For example, to increase sectoral revenues that accrue to the state, the government proposed the replacement of the

concession regime with production-sharing agreements in production areas declared “strategic” by the Brazilian government, including the pre-salt reserves.

Also, the recent discovery of very large oil fields in the deep offshore “pre-salt” off the Brazilian coast opens a new era for Petrobras. As oil imports have faded and are no longer a critical macroeconomic concern for the government, political attention has turned to oil revenues as a future source of fiscal revenue. In an effort to maximize its control over oil resources and revenues for itself, the federal government introduced production-sharing agreements and also created an entirely new and separate NOC named Petrossal, which is fully owned by the federal government. Petrossal has complete control over the pre-salt market. Petrobras will be the operator of any Petrossal consortia with a minimum investment share of 30 percent.

The main objective of Lula’s hydrocarbon SOC reforms is to align the operation with the Brazilian state’s shifting preferences (Da Silva 2008). In 2009, in times of record high international prices, Lula assumed that the pre-salt reserves would play a strategic role in Brazil’s future long-term development, and that in global terms demand for hydrocarbon resources would steadily increase due to scarcity. To guarantee that the wealth created by Brazil’s newly discovered pre-salt reserves will accrue to future generations, a preservation fund was established, in addition to other government programs intended to promote innovation and address social issues. However, this social fund for future generations did not preempt the initiation of a vibrant political debate between the federal government and subnational producing and consuming governments over the distribution of growing hydrocarbon rents in Brazil (Monteiro 2009; Monteiro and Ferraz 2012).
During the second Lula administration, state intervention in the economy increased substantially. This consisted of, in one form, attempts to establish new SOEs to carry out government programs in sectors in which the private sector is already well prepared to operate. Apart from Petrossal, this includes such activities as the manufacture of drugs and fertilizers, and the provision of broadband internet services. Another example is the expansion of lending by public banks, which allocated these loans in more interventionist ways. BNDES, in particular, sponsored the merger of large companies. This occurred in paper pulp, petrochemicals, telecom and food processing. The stated objective was the creation of “national champions.” This second strand of intervention was originally justified as a means to compensate for the recessionary effects of the 2008 global financial crisis, but it was kept intact even after the economy made a strong recovery in the second half of 2009.

President Dilma Rousseff’s tenure has been far more constrained in macroeconomic terms, plagued by stalled growth, inflation and flagging competitiveness abroad in several of Brazil’s traditionally important industrial sectors. Rousseff’s approach toward the petroleum sector has been no more aggressive than Lula’s was. Nevertheless, economic recession raises a set of serious implications for Petrobras and for the likelihood that the pre-salt frontier will actually be developed. Since the discovery of the pre-salt, once again there are indications that the government views Petrobras not as an oil company but as a policy instrument. Petrobras has been made responsible for controlling inflation through fuel price subsidies and for stimulating domestic industries through local content manufacturing requirements. This policy approach is reflected in Petrobras’s rising debt, as well as in the downward trajectory of
its stock value which has declined from more than R$60 in 2008 to less than R$20 in 2013.  

Mexico in the 2000s:

December 2000 marked the election of President Vicente Fox (PAN) and a historic change in political regime for Mexico. Yet, with the PRI having held onto a plurality of seats in each house of the Mexican Congress, Fox was limited in terms of a reform agenda. In his inaugural address to the Mexican Congress, Fox said that he would not seek to privatize Pemex or CFE. At the time, predictions were that Fox’s efforts at energy reform would be limited to attracting private investment by such “modernizing” as may be feasible without constitutional amendment.

In fiscal terms, throughout the first decade of the 2000s, Mexico’s economy was under pressure from numerous structural issues that impacted public revenues and public expenditures. Fiscal accounts continued to rely heavily upon Pemex. The government treated Pemex as a “cash cow” in the early-1980s, and it has been continuing to do so in the 2000s. The central financial relationship between Pemex and Mexico exists on three fronts: taxes, subsidies, and investment financing. This remains the case at a time when proven reserves and production are stagnant and gas and gasoline imports are on the rise. A major fiscal threat for Mexico is that domestic oil output has been declining and is expected to drop further over the short term (Elizondo 2012). Oil production has been in decline since 2006. The high international oil prices of recent years may have limited the

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urgency of a comprehensive fiscal reform, as they have masked the serious underlying decline in petroleum output. Pemex is challenged to increase its efficiency to engage in profitable investments for the benefit of Mexico, and thus bring beneficial outcomes for the budget.

To further explore and develop Mexico’s hydrocarbon frontier, Pemex needs to gain technological capacity, as its NOC counterparts in Latin America have done. There is therefore a need for flexibility in Pemex’s contracting arrangements. However, the Constitution requires that all petroleum operations be conducted by Pemex. There is a considerable degree of vagueness in Article 27. Despite its verbiage that prohibits private actor concessions or contracts in the upstream, interpretations have enabled outside service contracting to continue with the stipulation that compensation to private actors be made strictly in monetary terms. Amendment of the Mexican Constitution requires approval by (1) the affirmative vote of two-thirds of members present in the Mexican Congress and (2) a majority of state legislatures.

However, reforms continue to be an area where vested interests are translated into considerable resistance to change. The political economy constraints will have to be taken into account in achieving a welfare-improving outcome. Political rhetoric has frequently prevailed over long-term economic rationality, as was clearly demonstrated during the debate over energy sector reform in 2008. Conditions leading to the 2008 reforms: Significant steps were taken to improve the operational and economic performance of Pemex during the period 1990-2000. The Fox administration focused on three objectives: (1) to raise oil production; (2) to improve operational performance, which was limited by labor contracts and by the fact that necessary investments exceeded

253 Mexican Constitution, Article 135.
Pemex’s capital budget; (3) to guarantee a sustainable production platform beyond Cantarell. But Fox was not successful in his pursuit of these goals. In sum, the petroleum sector reforms introduced in 2008 were useful, but insufficient to materially affect the sustainability of the Pemex production platform or to restore efficiency to downstream distribution.

In 2014, President Enrique Peña Nieto (PRI) took an alternative approach to hydrocarbon sector reforms, contrary to the sweeping proposal for privatization that had last been attempted by the PRI under Salinas. Harkening back to the decades of the more centralized and secretive PRI, through the “Pacto por Mexico” reform agenda, Peña Nieto negotiated reforms hydrocarbon sector reforms across party lines, but also behind closed doors. Peña Nieto has apparently learned from his predecessors and recognized the political economy dynamics of the hydrocarbon sector and Pemex. A new round of reforms required that they be implemented incrementally, even if major changes are envisaged, which is what transpired out of the 2014 reforms. Despite the 2014 staged reforms, Pemex faces enormous challenges in both the short- and long-term. In political terms, its roles as a national symbol and as a policy instrument have stood to legitimize scandalous inefficiency and intolerable monopoly practices within Pemex. Pemex will be challenged to overcome a unique set of political, economic, and operational challenges. Pemex faces these challenges as it continues to engage in complex relations with powerful stakeholders such as the Mexican state and labor union, both of which are firm in their demands of this revenue-deficient and technologically incapable NOC.
Final thoughts:

In summary, my principal findings are reflective of my historical institutionalist analytical framework. Structural factors such as export profile, production time horizons for hydrocarbons, and by association extractive and technological capacity influence legacies of hydrocarbon sector development policy. I also find that institutional legacies and intrastate relations involving the NOC influence policy choices. Moreover, I find that those countries that depend on alternative implicit forms of taxation as their primary source of tax revenue tend to have revenue deficient NOCs. On the other hand, countries that rely more on alternative explicit forms of taxation tend to have revenue efficient NOCs. Such revenue efficient NOCs also tend to have higher levels of operational autonomy and technological capacity. The revenue deficiency or efficiency of the NOC is therefore reflective of the institutional capacity of the state as principal of the NOC. Finally, among the political institutional and interest-based factors, I find that during moments of policy reform, the executive’s ability to organize a pro-reform coalition further affects the likelihood for hydrocarbon sector policy reform to be approved and implemented.
Appendix A: Relative proportions of fiscal revenues from non-renewable natural resources in percent of total fiscal revenues (1990-2012)

Nota: En Chile se incluye tributacion a la mineria privada a partir de 1994
Appendix B: ECLAC, Tax Revenue as a percentage of GDP in Argentina, Brazil, and Mexico (1990-2012)

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<tbody>
<tr>
<td>Mexico</td>
<td>15.796</td>
<td>15.745</td>
<td>16.099</td>
<td>16.127</td>
<td>15.725</td>
<td>15.196</td>
<td>15.256</td>
<td>15.933</td>
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Data extracted on 05 Apr 2014 20:51 UTC (GMT) from OECD.Stat
Appendix C: Latin America and the Caribbean:
Commodity exports (1986-2004)
(Percentages of total exports)

Source: ECLAC, using information from the Commodity Trade Database of the United Nations Statistics Division (COMTRADE)
Appendix D: Selected fiscal regimes related to the exploitation of non-renewable commodities in Latin America (1990-2012)

<table>
<thead>
<tr>
<th>Country and product</th>
<th>Royalties</th>
<th>Income tax</th>
<th>Other taxes on incomes</th>
<th>Other levies</th>
<th>Public participation</th>
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</thead>
<tbody>
<tr>
<td>Argentina (hydrocarbons and mining)</td>
<td>12%-15%; or 5% for marginal deposits (oil); 0%-3% (mining)</td>
<td>Corporate income tax: 35%</td>
<td>Export duties: 25%-45% for hydrocarbons and 5%-10% for mining. Taxes on liquid fuels, natural gas, gas oil, liquefied gas, naphtha and compressed natural gas.</td>
<td>YPF (hydrocarbons)</td>
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<tr>
<td>Brazil (hydrocarbons and mining)</td>
<td>10% of the value of production (can be reduced to 5%, depending on geological risk and other factors) (oil); 0.2%-3% (mining, CFEM)</td>
<td>Corporate income tax: 15%, plus a surcharge of 10% if profits are above BRL 240,000 per year</td>
<td>Special state participation: 10%-40%; Tax on profit-bonuses abroad: 15% (or 25% for payments to tax havens)</td>
<td>Social levy on net profit: 9%, CDE: 10%, State-level tax on tax on sale of oil and gas (ICMS combustíveis)</td>
<td>Petrobras (hydrocarbons)</td>
</tr>
<tr>
<td>Mexico (hydrocarbons and mining)</td>
<td>Oil Revenue Tax (Pemex): 30%; Corporate income tax (certain subsidiary companies): 17.5%</td>
<td>Flat Rate Business Tax (IETU) (certain subsidiary companies): 17.5%</td>
<td>Mining duties; Hydrocarbons duties; Special Production and Services Tax (EPS gasoline); Merchandise Import Duty</td>
<td>Pemex (hydrocarbons)</td>
<td></td>
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Source: ECLAC, Revenue Statistics in Latin America (2014)

### 1. Historical Series, 1957-1992

#### Table: Imports and Exports by Country

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<tbody>
<tr>
<td>Argentina</td>
<td>7,340,000</td>
<td>4,360,000</td>
<td>7,120,000</td>
<td>4,240,000</td>
<td>6,900,000</td>
<td>4,120,000</td>
<td>6,680,000</td>
<td>4,060,000</td>
<td>6,460,000</td>
<td>4,020,000</td>
<td>6,240,000</td>
<td>3,980,000</td>
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#### Table: Imports by Broad Economic Category and Exports by Industrial Origin (Percentage of Total Value)

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<thead>
<tr>
<th>Category</th>
<th>Imports</th>
<th>Exports</th>
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<tbody>
<tr>
<td>Agriculture</td>
<td>12.0%</td>
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<td>12.0%</td>
<td>12.0%</td>
<td>12.0%</td>
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<tr>
<td>Manufactures</td>
<td>34.0%</td>
<td>34.0%</td>
<td>34.0%</td>
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<tr>
<td>Mining and Quinque &amp; Mixed Extractive Products</td>
<td>4.0%</td>
<td>4.0%</td>
<td>4.0%</td>
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#### Total Imports and Exports

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<tr>
<th>Year</th>
<th>Total Imports</th>
<th>Total Exports</th>
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<tbody>
<tr>
<td>1986</td>
<td>73,400,000</td>
<td>43,600,000</td>
<td>71,200,000</td>
<td>42,400,000</td>
<td>69,000,000</td>
<td>41,200,000</td>
<td>66,800,000</td>
<td>40,600,000</td>
<td>64,600,000</td>
<td>40,200,000</td>
<td>62,400,000</td>
<td>39,800,000</td>
<td>59,800,000</td>
<td>41,000,000</td>
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#### Total Imports and Exports (percentage of total value)

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<tr>
<th>Year</th>
<th>Total Imports</th>
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Source: Le, Moreno-Dodson and Baykrater (2012)

Ranking of Countries by Tax Effort Index, Averages (1994-2009)

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Source: Le, Moreno-Dodson and Baykrater (2012)
Privatization Proceeds in the Energy Sector by Country
	  
	  
Country
Argentina
Argentina
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Argentina

Company Name
Year
Sector
YPF (37 secondary drilling areas)
1990
Energy
Santa Cruz I
1991
Energy
YPF (22 secondary drilling areas)
1991
Energy
Vizcacheras (Mendoza)
1991
Energy
El Huemul-Koluel Kaike
1991
Energy
Tordillo
1991
Energy
Puesto Hernandez (Neuquen)
1991
Energy
YPF (5 primary drilling areas)
1991
Energy
Distribuidora de Gas Noroeste
1992
Infrastructure
Distribuidora de Gas del Litoral
1992
Infrastructure
Distribuidora de Gas Cuyana
1992
Infrastructure
Distribuidora de Gas del Centro
1992
Infrastructure
Distribuidora de Gas del Sur
1992
Infrastructure
Distribuidora de Gas Buenos Aires Norte
1992
Infrastructure
Transportadora de Gas del Norte
1992
Infrastructure
Distribuidora de Gas Pampeana
1992
Infrastructure
Distribuidora de Gas Metropolitana
1992
Infrastructure
Transportadora de Gas del Sur
1992
Infrastructure
Palmar Largo
1992
Energy
YPF (27 secondary drilling areas)
1992
Energy
Santa Cruz II
1992
Energy
Tierra Del Fuego
1992
Energy
Aguarague
1992
Energy
YPF joint ventures (4)
1992
Energy
YPF Planta de Aerosoles Dock Sud
1993
Energy
YPF-3 ships, 6 tankers
1993
Energy
YPF Interpetrol
1993
Energy
YPF Terminales Maritimas Patagonicas
1993
Energy
YPF Destileria Dock Sud
1993
Energy
YPFDestileria San Lorenzo
1993
Energy
YPF Ebytem (Puerto Rosales)
1993
Energy
YPF Transportes Maritimos Petroleros
1993
Energy
YPF Refineria de Campo Duran (Refinor)
1993
Energy
YPF Oleoductos del Valle
1993
Energy
Yacimientos Petroliferos Fiscales (YPF)
1993
Energy
Metrogas
1994
Infrastructure
Transportadora de Gas del Sur
1994
Infrastructure
YPF S.A.(5 tankers)
1994
Energy
Gas Natural Buenos Aires Norte (Gas Natural Ban)
1998(GasBAN)
Infrastructure
Yacimietos Petroliferos Fiscales (YPF)
1999
Energy

DealType
concessions

Country
Brazil
Brazil
Brazil
Brazil
Brazil

Company Name
Comgas
CEG (and its Riogas subsidiary)
Petroleo Brasileiro SA
Petrobras (transferred shares)
Petrobras

DealType
Private sale
Private sale
ADRs

DealSubtype

Divestiture

Full

Country
Mexico
Mexico
Mexico
Mexico
Mexico
Mexico

Company Name
Year
Sector
DealType
DealSubtype
Compania Operadora de Estaciones (incl 30 gas1992
stations)
Infrastructure
Sistema de Gas Natural de Monterey
1997
Infrastructure
Public offer
Distribuidora de Gas de Queretaro , S.A. de C.V.1998
Infrastructure
Tender
Distribuidora de Gas Natural del Estado de Mexico,
1998 S.A.Infrastructure
de C.V. Unidad DiganamexConcession
en la zona geografica
(30-year) del Distrito Federal
Unidad Diganamex en la zona geografica del Valle
1998
Cuautitlan
Infrastructure
- Texcoco
Concession (30-year)
Sistema de Gas Natural de Monterrey
1998
Infrastructure
Tender

Year
1997
1997
1997
1998
2000

Sector
Infrastructure
Infrastructure
Energy
Energy
Energy

DealSubtype

Proceeds ($ millions)
256.90
55.00
140.50
167.69
170.48
179.98
286.35
615.10
72.00
103.61
122.00
138.00
148.00
155.56
210.22
235.41
300.02
356.20
36.00
67.10
141.60
143.50
143.70
464.76
0.86
6.00
8.70
10.00
11.70
12.20
19.00
41.80
64.10
77.00
3,040.00
121.50
526.50
3.10
83.00
15,400.00
24,135.13

concessions

joint ventures
$10Mn cash, $62 DES
$14Mn cash, $89.6 Mn DES
$26Mn cash, $96Mn DES
$18Mn cash, $120Mn DES
$14Mn cash, $134Mn DES
$28Mn cash, $127.5Mn DES
$28Mn cash, $182.2 Mn DES
$18Mn cash, $217.4 Mn DES
$44Mn cash, $256Mn DES
$100Mn cash, $256.2 Mn DES
concessions

joint ventures

public offer, 75% of shares offered to foreign investors (ADS)
domestic & international public offer ADRs
40% dom;40% in US as ADRs;20% elsewhere
direct sale; $3.1Mn
Public Offer
Trade sale

	  

257

Proceeds ($ millions)

RealSector
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Gas
Gas
Gas
Gas
Gas
Gas
Gas
Gas
Gas
Gas
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Petroleum
Gas
Gas
Petroleum
Gas
Mining and quarrying (Oil and gas)
Total

	  

RealSector
70.90 Gas distributor
576.00 Gas distribution
387.80 Oil & Gas
Petroleum
4,233.30 Petroleum
5,268.00 Total

Proceeds ($ millions)
22.00
207.41
25.28
45.00
72.00
157.62
529.31

RealSector
Gas Stations
Gas
Gas Distribution
Gas Distribution
Gas Distribution
Gas Distribution
Total


### Appendix H: Tax Revenues by Government Sector in Latin America

#### Table 23 - Cuadro 23

**Atribución de los ingresos tributarios por sub-sector del gobierno general como porcentaje del ingreso tributario total**

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<td>Chile</td>
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<td>19.8</td>
<td>18.5</td>
<td>5.7</td>
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<td>4.9</td>
<td>4.9</td>
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<td></td>
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<tr>
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<td>85.2</td>
<td>63.3</td>
<td>63.3</td>
<td>2.1</td>
<td>2.9</td>
<td></td>
<td>33.4</td>
<td>32.6</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>73.9</td>
<td>87.7</td>
<td>81.1</td>
<td>0.7</td>
<td>1.1</td>
<td></td>
<td>6.5</td>
<td>6.5</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ecuador</td>
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<td>83.5</td>
<td>80.8</td>
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<td>1.4</td>
<td></td>
<td>15.6</td>
<td>15.6</td>
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<tr>
<td>El Salvador</td>
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<td>83.6</td>
<td>83.7</td>
<td>1.5</td>
<td>1.5</td>
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<td>21.2</td>
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<tr>
<td>Guatemala</td>
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<td>86.4</td>
<td>81.7</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
<td>15.6</td>
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<tr>
<td>Honduras</td>
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<td>86.1</td>
<td>77.1</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
<td>15.6</td>
<td>15.6</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Nicaragua</td>
<td>84.6</td>
<td>86.1</td>
<td>77.1</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
<td>15.6</td>
<td>15.6</td>
<td></td>
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<td></td>
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<tr>
<td>Panama</td>
<td>82.0</td>
<td>59.6</td>
<td>52.4</td>
<td>2.2</td>
<td>2.2</td>
<td></td>
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<td>38.0</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paraguay**</td>
<td>83.0</td>
<td>82.7</td>
<td>79.7</td>
<td>2.9</td>
<td>2.9</td>
<td></td>
<td>17.3</td>
<td>17.3</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Peru</td>
<td>89.2</td>
<td>87.7</td>
<td>87.5</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
<td>15.6</td>
<td>15.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td>82.0</td>
<td>62.5</td>
<td>71.4</td>
<td>7.8</td>
<td>7.9</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>OECD**</td>
<td>55.8</td>
<td>66.4</td>
<td>63.0</td>
<td>10.7</td>
<td>11.0</td>
<td>12.0</td>
<td>23.2</td>
<td>22.3</td>
<td>24.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. The figures include local government revenues for Argentina but do not include provincial revenues. Bolivia, Costa Rica (up to 1997), Dominican Republic, Ecuador, El Salvador, Honduras, Nicaragua, Panama (up to 1996), Paraguay, Peru (up to 2004) and Venezuela as the data are not available.
2. Chile and Mexico are also part of the OECD group. / 2. Chile y México son también parte del grupo OCDE.
3. Represents the unweighted average for OECD member countries. / 3. Representa el promedio no ponderado para los países miembros de la OCDE.
4. Colombia has a constitutional federal system. / 4. Colombia es una nación constitucionalmente federal con una estructura política descentralizada.
5. Includes Spain, which is constitutionally a non-federal country with a highly decentralized political structure. / 5. Incluye España, que es constitucionalmente una nación federal con una estructura política descentralizada.
7. Represents the unweighted average for OECD countries. / 7. Representa el promedio no ponderado para los países miembros de la OCDE.
### IV. Tax revenues by sub-sectors of general government

**Argentina**

<table>
<thead>
<tr>
<th>Table 29 - Cuadro 29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenues by sub-sectors of government</td>
</tr>
<tr>
<td>Ingresos tributarios por sub-sector de administración</td>
</tr>
</tbody>
</table>

**Millions of Argentine pesos**

<table>
<thead>
<tr>
<th></th>
<th>Federal government</th>
<th>State/Regional government</th>
<th>Local government</th>
<th>Social security funds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gobierno federal</td>
<td>Estado/Regional</td>
<td>Gobierno local</td>
<td>Fondos de seguridad social</td>
</tr>
<tr>
<td><strong>1000 Taxes on income, profits and capital gains</strong></td>
<td>382</td>
<td>292</td>
<td>786</td>
<td>146</td>
</tr>
<tr>
<td><strong>2000 Social security contributions</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>3000 Taxes on payroll and workforce</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4000 Taxes on property</strong></td>
<td>496</td>
<td>1254</td>
<td>11436</td>
<td>32674</td>
</tr>
<tr>
<td><strong>4100 Recurrent taxes on immovable property</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4200 Recurrent taxes on net wealth</strong></td>
<td>31084</td>
<td>18472</td>
<td>15467</td>
<td>7468</td>
</tr>
<tr>
<td><strong>4300 Estate, inheritance and gift taxes</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4400 Taxes on financial and capital transactions</strong></td>
<td>496</td>
<td>100</td>
<td>9558</td>
<td>2742</td>
</tr>
<tr>
<td><strong>4500 Non-recurrent taxes</strong></td>
<td>70</td>
<td>21</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>4600 Other recurrent taxes on property</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5000 Taxes on goods and services</strong></td>
<td>4713</td>
<td>37552</td>
<td>62057</td>
<td>138346</td>
</tr>
<tr>
<td><strong>5100 Tax on production, sale, transfer, etc.</strong></td>
<td>4713</td>
<td>37552</td>
<td>62057</td>
<td>138346</td>
</tr>
<tr>
<td><strong>5110 General taxes</strong></td>
<td>1591</td>
<td>19425</td>
<td>38684</td>
<td>113330</td>
</tr>
<tr>
<td><strong>5120 Taxes on specific goods and services</strong></td>
<td>3122</td>
<td>9166</td>
<td>27069</td>
<td>85916</td>
</tr>
<tr>
<td><strong>5130 Unallocable between 5110 and 5120</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5200 Taxes on use of goods and perform activities</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5300 Unallocable between 5100 and 5200</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5900 Other taxes</strong></td>
<td>215</td>
<td>365</td>
<td>809</td>
<td>2368</td>
</tr>
<tr>
<td><strong>TOTAL TAX REVENUE</strong></td>
<td>5898</td>
<td>40420</td>
<td>61299</td>
<td>311833</td>
</tr>
</tbody>
</table>

1. The figures exclude local government revenues as the data are not available.
2. Las cifras excluyen los ingresos de gobiernos locales ya que los datos no están disponibles.
3. In ECLAC data, property tax on motor vehicles is classified in category 4000.
4. In los datos de CEPAL el impuesto sobre propiedad de vehículos automotores es clasificado en la categoría 4000.

[StatLink](http://dx.doi.org/10.1787/888932971539)
### IV. TAX REVENUES BY SUB-SECTORS OF GENERAL GOVERNMENT: INGRESOS TRIBUTARIOS POR SUB-SECTOR DE GOBIERNO GENERAL

<table>
<thead>
<tr>
<th></th>
<th>Federal government</th>
<th>State/Regional</th>
<th>Local government</th>
<th>Social security funds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1000 Taxes on income, profits and capital gains</strong></td>
<td>1</td>
<td>53907</td>
<td>145309</td>
<td>210519</td>
</tr>
<tr>
<td><strong>2000 Social security contributions</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>3000 Taxes on payroll and workforce</strong></td>
<td>0</td>
<td>5740</td>
<td>14469</td>
<td>33223</td>
</tr>
<tr>
<td><strong>4000 Taxes on property</strong></td>
<td>0</td>
<td>17725</td>
<td>38292</td>
<td>27038</td>
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<tr>
<td><strong>4100 Recurrent taxes on immovable property</strong></td>
<td>0</td>
<td>234</td>
<td>234</td>
<td>468</td>
</tr>
<tr>
<td><strong>4200 Recurrent taxes on wealth</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4300 Estate, inheritance and gift taxes</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4400 Taxes on financial and capital transactions</strong></td>
<td>0</td>
<td>17462</td>
<td>34294</td>
<td>25553</td>
</tr>
<tr>
<td><strong>4500 Non-recurrent taxes</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>4600 Other recurrent taxes on property</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5000 Taxes on goods and services</strong></td>
<td>1</td>
<td>74109</td>
<td>147819</td>
<td>241129</td>
</tr>
<tr>
<td><strong>5100 Taxes on production, sale, transfer, etc.</strong></td>
<td>1</td>
<td>74109</td>
<td>147819</td>
<td>241129</td>
</tr>
<tr>
<td><strong>5110 General taxes</strong></td>
<td>1</td>
<td>53745</td>
<td>125567</td>
<td>195875</td>
</tr>
<tr>
<td><strong>5120 Taxes on specific goods and services</strong></td>
<td>-</td>
<td>8484</td>
<td>82122</td>
<td>44224</td>
</tr>
<tr>
<td><strong>5130 Unallocable between 5110 and 5120</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5200 Taxes on use of goods and personal activities</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>5300 Unallocable between 5130 and 5200</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>6000 Other taxes</strong></td>
<td>0</td>
<td>2302</td>
<td>2039</td>
<td>3033</td>
</tr>
</tbody>
</table>

**TOTAL TAX REVENUE**

| 1 | 164959 | 349818 | 553103 | 717190 | 1 | 89703 | 171644 | 308484 | 379308 | 0 | 11952 | 22180 | 64954 | 28986 | 1 | 83459 | 198235 | 315076 | 425680 |

1. For years prior to 2000, as well as for 2012, the PASEP contributions under heading 3000 are included in the total for PASEP contributions under heading 5110. For 2012, revenue from the other taxes under heading 3000 is included in the category 5000.
2. For 2012, category 6000 includes IPVA, ITCD, and Taxas Estaduais. / 2. Para 2012, la categoría 6000 incluye el IPVA, el ITCD, y las "Taxas Estaduais".
3. For 2012, category 6000 includes ISS, IPTU, and ITBI. / 3. Para 2012, la categoría 6000 incluye el ISS, el IPTU, y el ITBI.
### IV. TAX REVENUES BY SUB-SECTORS OF GENERAL GOVERNMENTS

**INGRESOS TRIBUTARIOS POR SUB-SECTOR DE GOBIERNO GENERAL**

<table>
<thead>
<tr>
<th>Millions of Mexican pesos</th>
<th>Federal government</th>
<th>States/Regional</th>
<th>Local government</th>
<th>Social security funds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gobierno federal</td>
<td>Estado/Regional</td>
<td>Gobierno/Local</td>
<td>Fondos de seguridad social</td>
</tr>
<tr>
<td>1990</td>
<td>34,688</td>
<td>3</td>
<td>2</td>
<td>17,195</td>
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<td>2000</td>
<td>29,948</td>
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<td>2</td>
<td>18,272</td>
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<td>2010</td>
<td>24,208</td>
<td>3</td>
<td>2</td>
<td>19,349</td>
</tr>
<tr>
<td>2012</td>
<td>19,468</td>
<td>3</td>
<td>2</td>
<td>20,426</td>
</tr>
</tbody>
</table>

### Table 40 - Cuadro 40

**Tax revenues by sub-sectors of government**

<table>
<thead>
<tr>
<th>Ingresos tributarios por sub-sector de administración</th>
<th>México</th>
<th>México</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>1000 Taxes on income, profits and capital gains</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>------</td>
</tr>
</tbody>
</table>

1. In ECLAC and CIAT data, fees levied on hydrocarbon production are treated as non tax revenues.
2. The 2012 data for revenues of the State and Local levels of government are not available. They comprise revenues in categories 3000, 4000, 5000, and 6000.
3. The data of the year 2012 of the income a nivel estatal y local del gobierno no se encuentran disponibles. Incluyen los ingresos en las siguientes categorías 3000, 4000, 5000 y 6000.
Appendix I: Interviews

In the course of researching hydrocarbon sector development policy reforms in Argentina, Brazil, and Mexico, I interviewed a total of 45 individuals. Most of the interviews occurred between January and December 2011 during my fieldwork in Buenos Aires, Brasilia, Mexico City, Rio de Janeiro, and São Paulo. My initial list included NOC, bureaucratic agency, and government leadership. The list also included the leaders of private sector and labor organizations with ties to the hydrocarbon sector, as well as other individuals whose names had appeared in the written sources previously examined.

I had been warned that it would be very difficult to gain access to the people with whom I wished to speak since most were important national figures and I was an unknown and not particularly “well-connected” graduate student from the United States. Nevertheless, with a few exceptions, I was able to obtain interviews with most whom I contacted. Most of the interviews resulted from an email to the individual in question in which I introduced myself, explained what I was doing in the respective country, and requested an opportunity to discuss hydrocarbon sector development policy reforms.

The interviews ranged from thirty minutes to three hours in length, depending on the informant’s willingness to discuss her or his role in the reform process. Each individual’s proximity to the reform process itself correlated directly with the length of each interview. In other words, the more closely connected to the reform process, the less time an individual was able or willing to spend recounting her or his involvement and answering questions about it, to me.

All interviews were unstructured and none were taped. I do not know whether people would have been willing to have their remarks taped, but I felt that the use of a recording device would have deprived me of such useful “off the record” information. At the beginning of each interview I asked the informant whether I could take notes. All individuals gave their permission. As a result of these procedures, only informal notes of the interviews exist. The informants are listed below by country, in alphabetical order.

Informants

Argentina:

Diego Finchelstein, Professor, Universidad de San Andrés, November 2011

Nicolas Gadano, Economista en el Banco de la Ciudad de Buenos Aires y Professor en la Escuela de Gobierno, Universidad Torcuato di Tella, November 2011
Daniel Heymann, Coordinador, Area de Análisis Macroeconómico, Comisión Económica para Latina y el Caribe (CEPAL), Buenos Aires, November 2011

Sebastian Juncal, Professor, Centro de Estudios de Estado y Sociedad (CEDES), November 2011

Guisela Masarik, Gerencia de Relaciones Institucionales, Instituto Argentino del Petróleo y del Gas, November 2011

Gerardo Rabinovich, Vice Presidente del Instituto Argentino de la Energía General Mosconi, November 2011

Leonardo Stanley, Professor, Centro de Estudios de Estado y Sociedad (CEDES), November 2011

Juan Gabriel Tokatlian, Professor, Departamento de Ciencia Política, Universidad Torcuato di Tella, November 2011

Brazil:

Octavio Amorim Neto, Professor, Fundação Getulio Vargas, July 2011

Owen L. Anderson, University of Oklahoma College of Law (guest speaker at University of São Paulo School of Law), June 2011

Armando Castelar Pinheiro, Professor do Instituto de Economia da Universidade Federal do Rio de Janeiro (UFRJ), May 2011

Roberto di Cillo, Contracts and Corporate Governance Attorney, São Paulo, November 2011

Gregório da Cruz Araújo, Economist, Petróleo Brasileiro S.A. (Petrobras), October 2011

Fabio Giambiagi, Economist, Banco Nacional de Desenvolvimento Econômico e Social (BNDES), May 2011

Lena Lavinas, Economist, Instituto de Economia, Universidade Federal do Rio de Janeiro (UFRJ), June 2011
Roberto Loureiro Filho, Analista de Comércio Exterior no Ministério do Desenvolvimento Indústria e Comércio Exterior (MDIC), September 2011

Luiz Eduardo Motta, Professor, Instituto de Filosofia e Ciências Sociais (IFCS), Universidade Federal do Rio de Janeiro (UFRJ), June 2011

Edmilson Moutinho dos Santos, Professor, Instituto de Electrotécnica e Energia, Universidad de São Paulo, June 2011

Helder Queiroz Pinto Jr., Diretor da Agência Nacional do Petróleo, Gás Natural e Biocombustíveis, October 2011

Amaury de Souza, Senior Partner of Techne and MCM Associated Consultants, and Professor do Instituto Universitário de Pesquisas do Rio de Janeiro (IUPERJ), October 2011

Eduardo de Vasconcelos Raposo, Professor e Pesquisador do Departamento de Ciências Sociais da Pontifícia Universidade Católica do Rio de Janeiro, February-November 2011

Licinio Velasco Jr., Gerente do Departamento de Insumos Básicos do Banco Nacional de Desenvolvimento Econômico e Social (BNDES), April 2011

Alexander Zhebit, Ex-diplomat, Adjunct Professor of International Relations, UFRJ, and Assistant Professor of International Relations, Diplomatic Academy of the Ministry of Foreign Affairs of Russia

Mexico:

Sigrid Arzt Colunga, Comisionada del Instituto Federal de Acceso de Información y Protección de Datos (IFAI), January 2011

Allyson Benton, Professor, Centro de Investigación y Docencia Económicas, January 2011

Víctor Carreón Rodríguez, Professor, Centro de Investigación y Docencia Económicas, January 2011

Jorge Chabat, Professor, Centro de Investigación y Docencia Económicas, January 2011
Carlos Elizondo, Professor, Centro de Investigación y Docencia Económicas, January 2011

Aldo Flores Quiroga, Assistant Secretary, Secretaría de Energía, January 2011


Alicia Puyana Mutis, Professor, FLACSO, January 2011

Jorge Schiavon, Professor, Centro de Investigación y Docencia Económicas, January 2011

David Shields, Energy Analyst, January 2011

Jaime Suárez Garza, Coordinador Ejecutivo, Pemex, January 2011

Carlos Treviño Medina, Chief Financial Officer, Pemex, January 2011

Rafael Velázquez, Professor, Centro de Investigación y Docencia Económicas, January 2011

Duncan Wood, Professor, Instituto Tecnológico Autónomo de México, January 2011
Appendix J: Verification of University of Miami
Institutional Review Board Determination

EXEMPT – CONFIRMATION

August 25, 2014

Bruce Bagley, Ph.D.
University of Miami
Department of International Studies
Coral Gables Campus
Coral Gables, FL 33124

HSRO
STUDY NUMBER: 20110480


IRB ACTION DATE: 7/28/2014

FWA #: FWA00002247

On 7/28/2014, an IRB Chair determined that the above referenced protocol qualifies for exemption from IRB review.

APPROVAL INCLUDES:

New Research Protocol
Research Materials (English Versions Only)

- Informed Consent Form
- Interview Questions

Please remember that the Human Subjects Research Office (HSRO) must be notified of any proposed changes in research activities. Changes must receive IRB review and approval prior to implementation. Upon completion of the study, submit a closure report via ePoint.

Sincerely,

[This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature]

Amanda Cotles-Rojas, MPH, CIP
Director
Regulatory Affairs & Educational Initiatives

/nrc

cc: IRB File
John Twichell

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Center for Energy Economics (undated). “Brazil’s Restructuring of the Oil and Gas Industry.” Bureau of Economic Geology, Jackson School of Geosciences at the University of Texas at Austin.


Decreto que Crea la Institución Petróleos Mexicanos, articulo 3 el 20 de Julio de 1938.


Mahoney, James (2007). "Qualitative Methodology and Comparative Politics." Comparative Political Studies 40; 2: 122-144.


