

# **Political Institutions, Hydrocarbons Resources, and Economic Policy Divergence in Latin America**

**Abstract:** There has been a surprising trend toward hydrocarbons resource nationalism in Latin America during the past few years. Several governments have reintroduced statist energy policies, though others have chosen to maintain the liberal policy status quo. To explain recent policy divergence, I focus on the interplay between political institutions and economic factors in shaping the range of possible policy options available to governments. I argue that rising state fiscal hydrocarbons revenues expand the range of economically feasible policy options. In such a context, governments from all ideological perspectives have an incentive to find ways to raise the state fiscal take through raising taxes and royalties. However, left-leaning administrations will seek to increase state intervention in the sector as well. In contrast, periods of declining hydrocarbons revenues encourage governments to minimize the cost of financing hydrocarbons sectors, leading them to accept more market-friendly energy policies. Whether governments can achieve such goals, however, depends on the political viability of passing them through congress. Case studies of six hydrocarbons producing nations support the argument.

**Keywords:** oil revenues; leftism; energy policy; Latin America

**Allyson Lucinda Benton**  
Profesora-Investigadora  
División de Estudios Políticos  
Centro de Investigación y Docencia Económicas. A.C. (CIDE)  
Carretera México-Toluca 3655  
Colonia Lomas de Santa Fé  
México. D.F. C.P. 01210  
Tel.: (52) 55-5727-9800. ext. 2408  
Fax.: (52) 55-5727-9871  
E-Mail: allyson.benton@cide.edu

## **Resource Nationalism and Leftism in Latin America**

There has been a surprising trend toward hydrocarbons resource nationalism in Latin America over the past several years. After pushing through controversial reforms to liberalize the sector in the 1990s, several governments have recently moved to increase state control over hydrocarbons in a variety of ways. In Venezuela, President Hugo Chávez (1998 – present) restructured the state oil company to reduce its autonomy from the government, forced international oil companies to accept new contract terms, and raised taxes and royalties. In Bolivia, congress approved legislation to reconstitute the state oil company in 2005 and raised taxes and royalties, while newly elected President Evo Morales (2006 – present) nationalized all hydrocarbons resources in mid 2006. Argentina’s President Néstor Kirchner (2003 – present) has raised export taxes on oil and natural gas, controlled domestic hydrocarbons prices, and formed a new state oil company that will have first preference over future offshore oil and natural gas discoveries. For each of these presidents, rising state hydrocarbons revenues have been used to finance governmental programs and state interventionist policies in other areas of the economy.

Even where governments have not reversed energy sector strategies, politicians that advocate increased state presence in the sector have gained considerable support among citizens, raising the importance of hydrocarbons policy in public and political debate. Mexico’s 2006 left-leaning presidential contender Andres Manuel López Obrador (Partido de la Revolución Democrática - PRD) promised to retain national ownership over hydrocarbons and prevent foreign investment in the sector, and he barely lost to the more market-friendly Felipe Calderón (Partido Acción Nacional – PAN) in the July 2006 race. In Peru, presidential candidate Ollanta Humala, a left-leaning ethno-nationalist, threatened to nationalize the mining sector but lost to the former left-leaning president cum centrist

politician Alan García in the June 2006 presidential runoffs. In Ecuador, newly-elected left-leaning President Rafael Correa (2007 - present) promised during his campaign to rewrite hydrocarbons legislation to raise state revenues from the sector to help the poor.

The sizeable fiscal income enjoyed by many countries from oil and natural gas production thanks to rising prices in the 2000s has renewed the interest of politicians in using this sector to fund their policy objectives in other areas of the economy. Hydrocarbons resource nationalism has often begun with the election of leaders who advocate an increased role of the state in the economy. Venezuela's Chávez, Bolivia's Morales, Ecuador's Correa, and Argentina's Kirchner were all elected thanks to their criticism of the neo-liberal economic models of prior governments. Even so, not all left-leaning leaders have implemented the policies they claim to support. Left-leaning Brazilian President Luiz Inacio "Lula" da Silva (2002 – present) and left-leaning Uruguayan President Tabaré Vazquez (2004- present) have not rolled back liberalizing reforms, though they won office through criticism of the neo-liberal economic policies of the past. Brazil's President Lula has also maintained his nation's liberalizing hydrocarbons sector reforms adopted in the 1990s.

This article examines recent trends in Latin American resource nationalism. I argue that three factors explain variation in attitudes toward hydrocarbons resources: governmental ideological preferences, executive-legislative dynamics, and the level of state hydrocarbons revenues. In a context of high fiscal revenues gained from hydrocarbons resources – due to rising hydrocarbons prices, declining costs of production, or a combination of both - all hydrocarbons-producing nations have an incentive to find ways to increase state income from the sector to take advantage of rising earnings to investment ratios, regardless of their policy preferences. However, left-leaning regimes whose ideological predispositions and constituents favor a more statist economic development strategy are more likely to propose

increased state control, in addition to rising tax and royalty rates, as a means of raising governmental hydrocarbons rents. More conservative administrations, in contrast, will tend to support policies that support private participation in the sector, even if they also propose rises in tax and royalty income. Whether or not any president can achieve his policy goals, however, depends on whether he counts on sufficient congressional support.

Periods of falling state hydrocarbons revenues, in contrast, lead governments from all ideological positions to support a role for private investment in the hydrocarbons sector. In this context, maximizing state hydrocarbons revenues means minimizing the fiscal costs of production to the state and thus raising private participation in the sector so that private investors undertake all investment costs and investment risks. As a result, falling hydrocarbons revenues – thanks to declining hydrocarbons prices, rising costs of production, or both – will lead both left-leaning and more conservative governments to support policies that increase the incentives for private investment, including measures to reduce state involvement in the sector and lower tax and royalty rate regimes, in order to raise production and state hydrocarbons income. Such policy preferences will prevail for those politicians who must go against their stated ideological views about the role of the state in the economy. Even so, presidents can only achieve market-oriented policy goals if they count on the congressional support necessary to see them passed into law.

Given that we have seen Latin American presidents facing favorable political contexts for passing their policy objectives choosing not to push them through congress, as well as presidents choosing to implement both market-oriented and statist energy sector policies in recent years, it appears that analyses based on political institutions and/or the reasons toward economic policy convergence seem somewhat out of line with current Latin American trends. To remedy this, I focus on the domestic political and energy sector-specific

economic factors that determine the range of viable energy policy options open to governments. Although meant to explain energy policy trends in Latin America, the focus on sector-specific economic factors shows how economic conditions beyond those usually studied until now also affect policy-making and policy outcomes. To make this case, I proceed like so: First, I review the literature on oil producing nations to show that it does not adequately explain recent energy policy strategies in Latin America. Second, I review well-known political-institutional and economic approaches to policy-making but explain how neither adequately explains the range of energy policies available hydrocarbons-producing nations. I then present the argument in section three. In the fourth and fifth sections, I discuss the argument's independent and dependent variables and present an overview of Latin America's hydrocarbons-producing nations and the cases chosen for study. I then evaluate the argument using six case studies. I then conclude.

### **What Has and Has Not Been Said About Oil Producing Regimes**

There is a well known literature on the political economy of oil producing nations. The most extensive work analyzes how oil rents affect domestic economies and the distribution of income,<sup>1</sup> state structures and governmental behavior,<sup>2</sup> and regime type and the prospects for regime survival.<sup>3</sup> Though varied in their analytic focus and findings, these studies tend to have one thing in common: a country's energy model is usually treated as exogenous and as an explanatory variable for other things but not as the object of study. This is understandable; the point of interest of most research to date has not been on how the sector's structure came into existence but on how it shapes other things. Yet, energy policy and thus sector structures varies dramatically across nations and over time. That energy

sector structures affect hydrocarbons income and thus politics and economics means that the initial energy policy choice should be of analytic concern.

Exceptions to the studies above include Luong Jones and Weinthal (1999) and Palacios (2003). Luong Jones and Weinthal (1999) analyze three Caspian nations that recently discovered major oil and natural gas reserves. The authors seek to explain why states maintain or relinquish ownership over hydrocarbons, arguing that states with alternative fiscal resources (to hydrocarbons) and lower levels of political instability can afford state involvement in the sector because they can wait for its financial benefits. Fewer alternative resources and higher political instability make private investment more desirable for its immediate fiscal rewards. However, fiscal resources and politics appear to work differently in Latin America. There, political instability has often led states to intervene in the energy sector and short-term gains in oil rents have occurred with state intervention. Recent political instability in Bolivia, for example, pushed hydrocarbons policy to the left, with the congress increasing taxes and royalties and state presence in the sector as a result. This move had immediate fiscal benefits for state coffers.

In a study of several Latin American countries, Palacios (2003) argues that a country's position in the international oil market affects its energy regime, with exporters preferring more statist structures than importers to maximize fiscal rewards. While the author's argument appears to be generally true, a country's position as an exporter does not explain differences among oil exporting nations. In Mexico and Venezuela, two important oil exporters, there has been considerable variation in governmental attitudes toward the energy sector, even if these countries have tended to be more state-oriented than the smaller producers. To be fair, Palacios (2001) also argues that the position of state oil companies in the domestic oil market explains sector differences. Much of Mexico's oil production is

consumed domestically, leaving its state oil monopoly keen on protecting its domestic position through state control. Most Venezuelan production is sold abroad, with the state oil company eager for ways to reduce costs through private investment. However, this argument cannot account for Venezuela's recent statist shift.

### **How Politics and Economics Determine the Range of Policies Available to Governments**

There is a large literature on policy-making processes that has been applied to explain policy-outcomes in Latin America. A thorough review of this vast literature is beyond the scope of this study but let me highlight two main areas of research pertinent to the study conducted here. The first area focuses on how domestic political institutions affect policy-making processes and the range of possible policy outcomes; the second highlights the role of international economic factors in determining the range of viable policy outcomes. As shown here, though providing important clues to policy-making processes, neither point of focus fully explains policy outcomes, particularly in Latin America's energy sector.

Political institutional approaches to policy-making highlight how the institutional rules of the game, including the structure of government and powers attributed to its branches and levels, the electoral laws that affects the number and representativeness of parties, and the relevant institutional players and their agenda setting or veto powers, affect the prospects for policy change and the nature of policy outcomes. There has been considerable research on the effect of a variety of specific institutional features on policy-making but let me turn to two recent studies that synthesize prior research into unified theories. Tsebelis (2002) focuses on how political institutional arrangements determine the number and nature of veto players in the policy-making process, thereby affecting the range of possible policy coalitions and thus the chances of significant policy change from the status quo. To

summarize, the author argues that the greater the number of veto players in a system – as determined by the political institutional rules of the game - and the greater their ideological distance, the lower the number of possible policy options (the smaller the policy space) and the fewer the chances for major policy change from the status quo. The author also highlights how other institutional features like federalism, bicameralism, the need for qualified majorities, and agenda control also interact with the nature and number of veto players to affect the type of and chances for policy change.

Similarly, Cox and McCubbins (2001) use a veto players approach but focus on explaining not simply the range of policies available to governments and prospects for policy change but also how different political institutional arrangements affect policy stability and the public and private mindedness of policies produced. They argue that as the number of veto players and the diversity of their policy preferences increases, the polity becomes more resolute, that is, able to commit to a maintaining a particular policy that it is able to pass but less decisive, that is, able to enact and implement policy change. Moreover, as the number of veto players and their ideological distances increase, policy will become more private-regarded and amount to a series of narrowly targeted policies as each veto player requires side payments to ensure support. As the number of veto players and the diversity of their ideological preferences declines, policy will become broader and thus more public-minded. Institutions shown to affect these dynamics include federalism, bicameralism, electoral laws, judicial independence, and the military.

The strength of political institutional approaches is that they focus on unpacking how different political structures affect the legislative process and thus the range and type of possible policy outcomes available to governments. This approach shows how, at one extreme, when presidents hold policy positions quite distinct from the status quo and count



on sufficient legislative support from similarly-minded legislators, governments can successfully implement major policy changes. At the other extreme, presidents who either do not count the support of like minded legislators or whose policy preferences reflect the status quo policy regime will find the range of politically viable policy options considerably reduced, usually leading to the preservation of the policy status quo. The range of possible policies available to presidents thus depends on domestic political institutional structures and how preferred policies compare to the relative position of the status quo.

There is little scholarly doubt that political-institutional conditions affect the range of policy options available to presidents. However, political institutional theories about policy change theories suffer from one fundamental weakness: although they systematically explain the range of politically viable policy outcomes, not all politically viable policy options are economically feasible. These days, most scholars and international investors agree that the globalization of capital markets, goods and services, and trade undermines the ability for advanced industrialized nations to pursue policies that undermine macroeconomic stability or the free market. In the increasingly competitive global economy, large public sector deficits and high public spending, uncertain tax and regulatory regimes, and unstable rule of law deter investment (Helleiner 1994; Henisz 2000; Henisz 2006; Simmons 1999; Strange 1996). This is not to say that there is agreement on the precise range of policies available to governments hoping to attract investors. Several scholars have found it to be somewhat wider than once thought. Institutional investors concerned with macroeconomic stability have been known to accept growth in social spending and even public deficits (Garrett 1998; Garrett and Lange 1991; Mosley 2000), while foreign direct investors make profits in a variety of regulatory and tax regimes (Jensen 2003). Even so, most scholars agree that

governments are reigned in by the international economy, leading to general policy convergence around neo-liberal economic policies (Boix 2000; Golub 2003).

Globalization has placed emerging markets on an even tighter policy leash. Of course, even emerging market investors have some limited tolerance for counter-cyclical social spending, governmental regulation, and political uncertainty. However, they still worry that the value of their assets might be at risk under a statist policy environment. For institutional investors, policies that increase state spending in a context of stable or declining fiscal revenues raise concerns. Investors holding sovereign bonds or foreign exchange worry about inflation, devalued currencies, and default; corporate bondholders and equity investors fear losses of domestic and international investor confidence, capital flight, and economic downturns. Foreign direct investors keep an eye on macroeconomic policy but also fear state intervention in domestic economic activity because it raises transaction costs and undermines economic efficiency and company performance. Intervention can also lead to confiscatory tax regimes, uncertain and confusing legal environments, and the expropriation of assets. Most investors would thus like emerging market nations to follow policies that support low inflation, free markets, policy stability, and property rights, thereby reducing the range of policies available to governments to those on the more moderate to right-leaning side of the economic policy continuum.

Along these lines, Tarzi (2001) shows that developing countries more generally who undertake neo-liberal economic policies attract investment, while countries who adopt expansionary macroeconomic policies are punished by international capital markets (Tarzi 1999). Mosley (2003) demonstrates that international capital markets constrain emerging market nations' macroeconomic policy choices more than industrialized ones. Wibbels (2006) shows that international market exposure restricts emerging markets' spending

capacity more than their industrialized counterparts. Scholars studying foreign direct investment patterns highlight the importance of neo-liberal economic policies for attracting investment as well (Biglaiser and DeRouen 2006a; Gastanaga, Nugent, and Pashamova 1998), but also highlight the role of political factors like policy stability, rule of law, and democratic governance on investors' decisions (Biglaiser and DeRouen 2006b; Li and Resnick 2003; Stein and Daude 2001; Tuman and Emmert 2004).

There is little scholarly doubt that most countries have faced pressures to move policy to the more market-friendly right as the global economy has truncated the range of economically feasible policy options on the left that are available to governments. However, some governments have enjoyed periods of relief from pressures to stay within these restricted bounds on the left-right economic policy continuum. Commodities producers fall among this group, with times of high commodities income increasing governments' scope of economic action and thus the range of policies available to them. This reveals an important shortcoming of studies of the global economy and economic policy change: most studies focus on explaining unidirectional movements toward the right, with few scholars focusing on the conditions under which policy might move back to a more left-leaning position. For example, commodities producing nations can avoid pressures to adopt neo-liberal economic policies (without being severely punished by investors) when commodities income increases state fiscal revenues, dividends, and company profits. As long as international financial obligations are met, institutional investors – especially sovereign bondholders – might remain concerned about the value of their assets but are often unwilling to punish governments with capital flight. Venezuela is a good example. Though Chávez continues to tighten state control over the economy, raising the risk to equity investors, the risk premium on Venezuelan sovereign bonds has declined with rising oil income, though admittedly

premiums are still high. High commodities prices can also raise the value of assets held by equity and foreign direct investors, especially in lucrative commodities industries, thanks to increased dividends and profits from these goods or in the broader economy. As a result, high commodities prices can allow governments of commodities producing nations to increase state intervention without significant capital flight. Venezuela is another good example. Increased state control over the hydrocarbons sector has not led to major capital flight but rather the reiteration of oil company commitments to work under the new regime. High commodities prices sometimes compensate for multinational companies' rising costs and investment risk related with state intervention.

Yet, most scholars of Latin American policy change have generally chosen to study either the economic or political factors influencing a nation's ability to adopt neo-liberal economic policy reform. For example, scholars highlight the role of global economic constraints and economic crises in leading governments down the path toward neo-liberal economic policy models, even if they also sometimes admit that domestic political factors affect the swiftness and the precise nature of policies implemented (Bates and Krueger 1993; Haggard and Kaufman 1992; Naím 1995; Stallings 1992; Vacs 1994). Others, like Haggard and Kaufman (1995) and Mainwaring (1999), assuming that policy must move to the right, point out how reformers counting on only weak executive institutions and fragmented party systems (thanks to electoral laws) find the prospects for implementing and maintaining economic reform diminished. Presidents facing fewer and more cohesive parties that are highly disciplined in congress are better able to see through difficult reforms (Packenham 1994). Geddes (1994) shows how government's faced with opposition parties who are equal in strength to their own parties bear the political costs of reform more equally, leading them to pursue such policy change. Crisp (2000) focuses on electoral laws, presidential veto

power and decree authority, provisions for censuring cabinet ministers, and legislative initiative to understand Venezuela's traditionally moribund policy-making process that was unable to support needed neo-liberal economic policy reform. Electoral rules and federalism have also been shown to interact to affect policy-making processes through their effects on campaign strategies, legislative careers, and party discipline (Ames 2001; Samuels 2003), while for Shugart and Cary (1992), Jones (1995), and Shugart (1995), electoral rules affect executive-legislative relations and thus policy outcomes.

Regardless of approach, most political institutional scholars focus on the institutional factors enabling some countries to undertake difficult neoliberal economic policy reforms. Yet, in recent years economic and, more specifically, energy policy in Latin America has both moved radically right and radically left. Arguments highlighting how global economic pressures lead governments toward economic policy convergence cannot explain recent policy divergence. Arguments highlighting the political institutional factors supporting economic policy reform cannot account for recent economic policy movements toward the left. Most nations implementing leftward policy change have not experienced the required shifts in political institutional structures that these arguments imply would be necessary for such policy shifts left. For example, if strong executive institutions and cohesive party systems enable economic reform, does this mean that weak executive institutions and fragmented party systems not only derail it but enable policy moves to the left? Do presidents faced with opposition parties weaker than their own necessarily implement statist economic policy changes? Political institutional arguments about economic policy reform are weakened by their focus on unidirectional policy movements to the right.

In the following section, I seek to broaden the application of economic and political institutional arguments to explain energy policy change in either a left-leaning or right-

leaning direction. To this end, rather than relying on political or economic arguments about neoliberal economic policy reform, I turn to a more general veto players approach to explain the politically feasible range of policy options and then integrate these findings with observations about shifts in conditions in the economy to explain the economically viable range of policy options. Integrating the politically and economically viable range of policy options helps explain the conditions under which policy can move left and right.

### **The Political-Economy of Energy Policy in Latin America**

In this section, I show how political and economic conditions interact to affect the range of possible energy policy outcomes, thus explaining major energy policy shifts to the left or to the right in recent years in Latin America. Specifically, I argue that three factors explain recent variation in energy policy in Latin America: the ideological preference of governments relative to the status quo, executive-legislative dynamics (veto players), and state fiscal revenues. Governments of hydrocarbons producing nations experience considerable fiscal rewards through increasing exports, rising prices for oil and natural gas, lower costs of production, that is, the level of investment needed to maintain production, and rising oil and gas reserves. In such a context, all governments have an incentive to find ways to increase rents derived from the sector. Whether they prefer to do this through increased state intervention, however, depends on their ideological tendencies relative to the status quo policy position. Governments with more left-leaning positions relative to the status quo are more likely to seek to increase state presence in the energy sector in a context of high fiscal rewards. Right-leaning leaders relative to the status quo will prefer policies that improve tax and royalty collections without increasing the level of state intervention. The precise nature of ultimate policy outcomes, however, depends on the nature of legislative support, in other

words, the array of congressional veto players. Economic largesse brought by oil booms thus increase the range of policy options available to governments, particularly on the left.

The incentive for governments to increase hydrocarbons rents, either through state intervention or taxation, declines with fiscal rewards. Lower oil and natural gas prices, rising costs of production, declining exports, and falling hydrocarbons reserves will lead all governments to seek to reduce taxes and royalty rates to attract investment and to divest state interests in the sector. In such a unfavorable energy context, it is better for governments to allow private investors to undertake costly and risky exploration and development projects, with the state concentrating on raising revenues through the most minimal of techniques: taxing and royalty regimes. This is true for all types of governments who are sensitive to the costs of maintaining state-led energy industries when sector profits are low or nonexistent. Strategies for attracting private investment include lowering tax and royalty rates and reducing the state's involvement in the energy production process to make space for private firms. Interestingly, even during periods of declining hydrocarbons sector profitability, executive-legislative relations are still important for passing energy measures but they also seem to become less problematic as politicians from all points on the ideological continuum facing declining hydrocarbons revenues tend to agree on the most efficient means of raising rents from the sector. Declining fiscal resources as a result of declining oil income thus reduces the range of economically viable policy options available to governments, even governments on the left who might have been able to build coalitions for more left-leaning policies.

The argument highlights the important role of both executive-legislative relations, as well as state hydrocarbons revenues in shaping energy policy outcomes though their impact on the range of policies open to governments. Growing state hydrocarbons revenues

encourage presidents and legislators favoring statist economic development strategies to seek to see their preferences become law in the energy sector as well. High hydrocarbons rents enable governments to increase taxes and royalties without deterring private investors already benefiting from rising earnings to investment ratios. They also make state intervention in the energy sector fiscally feasible as growing state coffers provide the means for financing costly hydrocarbons sector investment. Periods of rising state hydrocarbons revenues thus increase the range of hydrocarbons policies available to governments, particularly left-leaning ones, as long as they count on the legislative support necessary to see their preferences become law. In other words, rising hydrocarbons rents help governments avoid trends toward neo-liberal economic policy convergence. Periods of declining hydrocarbons revenues, in contrast, limit the range of energy policy strategies available to governments. Declining state hydrocarbons revenues reduce the fiscal feasibility of state investment in hydrocarbons production, thereby encouraging governments to find ways of attracting private investors to undertake costly investment. Periods of low hydrocarbons rents thus lead politicians from all ideological perspectives to consider policy convergence around more market-oriented development strategies in the energy sector as a means of protecting state fiscal coffers.

The argument's dependent variable of interest is the structure of the hydrocarbons sector, that is, the balance between state and liberal policies governing it. The hydrocarbons sector is divided into upstream and downstream activities, where upstream activities include exploration and production and downstream activities include transportation, distribution, and refining processes producing gasoline, petrochemicals, and liquefied natural gas (LNG). Upstream activities are the most fiscally lucrative for governments and it is thus on this stage of the energy production chain that I focus. Upstream (like downstream) activities can range



from highly state controlled to completely liberal. Table 1 shows the range of upstream sector structures with the types of public-private relationships that characterize them. Energy sectors at the statist extreme are closed to private investors and are managed by the government through a state oil ministry and a state oil and natural gas company. Some states allow private companies to perform services for the state oil company, so the sector is still closed but not as closed as it would be if all activities were reserved only to the state. In this case, companies hired to explore and extract oil or natural gas are reimbursed through a fixed service fee and are not allowed to receive any share of the oil/gas extracted and do not benefit (suffer) from the project's profitability. The state bears all investment risk.

--Table 1 about Here--

At the other extreme fall countries where all exploration and production activities are in private hands. These states have no state oil company but have energy ministries and oversight agencies that design energy policy and monitor its private participants. The energy ministry might decide when and how to auction blocs to private companies for exploration and production, design taxing and royalty regimes, and instruct an oversight agency in carrying these measures out. Some countries have kept state oil and gas companies but forced them to compete with private companies, while others have given state companies a privileged role in the sector and forced private companies to participate in consortiums through product sharing agreements or joint ventures. These are less "liberal" than countries where private companies operate alone but they are more open than cases that forbid private companies from sharing production profits or participating at all.

The argument focuses on three principal independent variables - governmental hydrocarbons revenues, governmental policy ideology, and executive-legislative dynamics - that jointly affect the level of state presence in the energy sector. The revenues variable

includes factors that affect trends in oil and natural gas rents: prices, costs of production, production levels, and reserve replacement ratios. It is beyond the scope of this article to develop a cost-benefit analysis of the interplay between these factors. However, let us consider the extreme cases to give us an idea about how these factors interact to affect state hydrocarbons rents. At one extreme, everything can be working in a government's favor: production can be rising and low cost, and reserves easily replaced, all in a context of rising hydrocarbons prices. In this case, the government not only enjoys high fiscal rents from the sector but also the expectation that these resources will continue into the future. At the other extreme, everything can be working against the government: production costs can be rising with output falling, reserves more costly and difficult to replace, all occurring in a climate of falling hydrocarbons prices. In this situation, governments not only face declining hydrocarbons revenues but the expectation is they will continue to fall. The range of possibilities falling between these two extremes is numerous. However, comparative statics help dissect how governments might view their fiscal costs and benefits. All else being equal, rising oil prices raises government's expectations of fiscal rents while falling prices dampens them. All else being equal, falling oil production and reserves, which often occur in conjunction with rising costs of production and reserve replacement, raises concerns among governments about future fiscal trends, even when prices are high. In contrast, rising oil production and reserves, even holding prices and the costs of production constant, raise governmental expectations about current and future hydrocarbons rents.

Governmental ideology ranges from left-leaning to right-leaning. Latin America's left-leaning politicians question the role of the free market, free trade, and globalization in producing economic growth and alleviating poverty and social inequality. They also question the benefits of structural reforms preferred by investors and are more tolerant of

state intervention in the economy and higher public spending, even if it implies small fiscal deficits and reasonable inflation. More moderate and right-leaning politicians, in contrast, accept the benefits (and costs) of the free market and are inclined to support structural reforms. They are also less tolerant of budget deficits and inflation. In terms of energy sector strategies, left-leaning presidents prefer state involvement in the sector as a means of managing fiscal revenues from it. Moderate and right-leaning politicians prefer to keep the state out of the sector but oversee tax and royalty collections through energy ministries.

Presidents might hold firm energy policy preferences but they are only successful in realizing them if they can build support in legislatures. The final explanatory variable in the argument thus has to do with executive-legislative dynamics. Presidents counting on the support of legislative coalitions will be able to see their policy objectives through. Those who do not count on such support will have a harder time defending their policy choices. Sometimes energy policy change requires simple majorities while in others it requires qualified majorities as a result of constitutional change. The type of legislation needed to change energy policy necessarily affects the size of legislative coalitions needed and thus the legislative bar set for presidents seeking to defend their policy choices.

### **The Cases: Latin America's Principal Hydrocarbons-Producing Nations**

Latin America's most important oil and natural gas producers include Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, Trinidad & Tobago, and Venezuela. Several other countries, including Peru, produce oil and natural gas but they are excluded from this analysis because their production levels are very low or are far from meeting domestic demand, their energy sectors do not play an important role in their economies, or energy does not contribute significant revenues to the state. Table 2 lists the proven oil reserves of the

Latin American nations studied here. Brazil, Mexico, and Venezuela count on the region's largest oil reserves. Most Middle Eastern countries count on far larger reserves, with only Venezuela truly rivaling them. Both Brazil's and Venezuela's reserves have increased over the past decades with new discoveries outstripping production. Mexico's reserves have declined as production has exceeded reserve replacement. Table 2 also lists several Latin American countries' natural gas reserves. Argentina, Bolivia, Trinidad & Tobago, and Venezuela count on the region's largest gas reserves. Most Middle Eastern nations count on far larger reserves, though Venezuela compares favorably.

--Table 2 about Here--

The countries in Table 2 range from exporting to self-sufficient to importing nations, even if they are all important hydrocarbons producers. Table 3 shows data on oil and gas production and exports. Oil exporting nations include Argentina, Colombia, Ecuador, Mexico, and Venezuela. Natural gas exporters include Argentina, Bolivia, and Trinidad & Tobago who exports natural gas as liquefied natural gas or LNG. Argentina's declining oil production points to the day where this country might become merely self-sufficient. Colombia is facing the same situation. Increased domestic consumption of natural gas might lead Argentina to just self-sufficiency in this area as well. Brazil imports natural gas but has recently reached oil self sufficiency. State concerns over reserve levels and future production capacity often figure into energy sector strategy calculations due to their fiscal implications for governments, as will be shown below.

--Table 3 about Here--

Prices for oil and natural gas have varied over time, something that has also affected governments' energy strategies. Table 4 presents a snapshot of oil and natural gas prices since 1985. The Latin American oil mixes vary around the benchmark basket price shown

due to differences in quality but they always follow international price trends. The biggest declines in oil prices occurred in the late 1980s and in the early 1990s but oil prices have risen considerably since 2003. The table also shows average US wellhead prices for natural gas. Natural gas is delivered through pipelines and its market is regionally limited, leading to regional variation in natural gas prices due to issues in supply and demand. Even so, Latin American and US natural gas prices tend to vary together and have steadily risen since 2003. Prices for portable LNG are more global but tend to rise with natural gas.

--Table 4 about Here--

Latin America's upstream energy sector structures range from statist to liberal. Table 5 presents information on the current energy structures in the countries studied here.

Argentina, Brazil, and Colombia are the most liberal. All Argentine oil production is in private hands but the government recently approved the formation of a state oil company which has privileged access to future offshore oil discoveries; all on-shore production is still in private hands. Brazil's Petrobras is only partly state owned but dominates oil and natural gas production. Colombia's government has recently undertaken liberalizing reforms that allow concessions and partial privatization of the state oil company. At the other end of the spectrum lays Mexico whose constitution forbids private investment in upstream activities and whose state oil monopoly claims sole right to exploit reserves. Mexico does allow private companies to hold service contracts for upstream activities but they do not share production risks or benefits. The remaining countries fit between the liberal and statist extremes. Venezuela is currently the most state oriented of these countries as the government has played a growing role in the sector. Bolivia is now running a close second to Venezuela; in 2005 the Congress reconstituted the state oil company, while President Evo Morales nationalized hydrocarbons resources in mid 2006. Ecuador and Trinidad & Tobago

are relatively more open. Ecuador's PetroEcuador undertakes a large share of oil production with the help of private investors. Private companies produce nearly all Trinidad & Tobago's natural gas, with state oil company Petrotrin involved in oil activities.

--Table 5 about Here--

I evaluate the argument using six case studies that reflect the full range of policy outcomes and policy variance in recent years. At one extreme lie Venezuela and Bolivia, whose liberalizing measures of the 1990s have been rolled back significantly in recent years. At the other end lie Brazil and Colombia whose liberalizing reforms have been maintained, even in a context of high oil prices. Trinidad & Tobago has also maintained its liberalized energy structure but I exclude this country for reasons of space. In a more middle position lie Ecuador and Argentina. Ecuador implemented some liberalizing reforms and has lately experienced minor back-tracking. Argentina undertook major liberalization in the 1990s and has faced only minor backtracking as well. However, for reasons of brevity, I exclude Argentina from the case studies. Mexico did not undertake major liberalizing energy reforms in the 1990s, nor has it undertaken any energy policy changes in recent years. I thus include this country as a point of comparison.

### **Venezuela: Oil Price Shocks Lead to a Renewed Role of the State in Oil Production**

Despite Venezuela's liberalizing reforms in the mid-1990s in response to low oil prices, the left-leaning President Hugo Chávez (1998 – present) of the Movimiento Quinta República (MVR) has steadily increased state presence in the energy sector as hydrocarbons prices rose. Chávez has been able to further his statist energy policy aims not only in the hydrocarbons sector but in the economy more generally thanks to the support of the legislature with a majority of members firmly in his camp. Venezuelan fiscal finances are

highly dependent on oil production. The country produced 2.9mn b/d crude oil and natural gas liquids in 2004 (Table 3). Most recently, state-owned Petróleos de Venezuela (PDVSA) reports oil production to have been 2.6mn b/d in 2005, with 2.2mn b/d exported, mostly to the US (PDVSA 2006). In 2003, PDVSA ranked fourth among the world's oil companies, though the December 2002 - January 2003 oil strike hurt its production (Petroleum Intelligence Weekly 2006). Taxes on PDVSA and private companies have accounted for between 33% and 47% of state income since 1998, and in 2004 they were 47% total revenues (Ministerio de Finanzas 2006). Venezuela's oil sector accounts for about three-quarters total export revenue and about one third GDP.

In the mid 20<sup>th</sup> century, most Venezuelan oil production was in private hands. However, following a rise in oil prices in the early 1970s, a wave of nationalism hit Venezuela and other OPEC countries, leading the government to begin to roll back private participation in the sector by refusing to grant more production concessions and to send signals to oil companies operating in the country that it was in the process of nationalizing the sector. The government's principal objective, since the early 1970s, was to regain control over oil resources and in so doing increase state revenues. After the creation of a Nationalization Commission to analyze the technical aspects of nationalization and numerous heated congressional debates over competing proposals, although it appears that most political parties generally agreed upon nationalization, the left-leaning President Carlos Andrés Pérez (1974-79, Acción Democrática) nationalized hydrocarbons and founded state oil company PDVSA in 1975 by presidential decree.<sup>4</sup>

The Ley de Nacionalización (1975) left a door open for private participation in hydrocarbons production through operating contracts (risk service contracts) or strategic associations (joint ventures). Most oil sector technicians involved in developing the

legislation agreed about the importance of maintaining a legal environment that could be flexible in the face of a variety of future hydrocarbons sector environments. In fact, the article allowing for such agreements was the subject of most of the heated debate in congress, which is very likely while Pérez, who supported this measure, chose to promulgate the law by decree rather than through congress. Any such private participation would have to be approved by majority congressional vote. After the steady decline of oil prices in the late 1980s, PDVSA announced in 1990 that it would auction several marginal fields as risk service contracts and in 1995 the legislature formally voted to allow PDVSA to auction exploration and production rights in the heavy Orinoco belt, so that private companies could explore for oil and if found form joint ventures with PDVSA.<sup>5</sup> That such liberalization did not require constitutional reform by only majority congressional approval facilitated such changes (Palacios 2003).

The increased levels of private participation during the 1990s meant that, by the early 2000s, a sizeable share of Venezuelan oil production was in private hands. This trend toward private investment, however, has been largely undone in recent years. Specifically, the left-leaning President Hugo Chávez (1998 – present) of the Movimiento Quinta República (MVR) has steadily raised the level of state presence in the energy sector, undoing trends toward liberalization during the 1990s. Chávez’s energy strategy can be divided into two phases. The first includes the realization of campaign promises to increase state control over the sector. The second includes enforcement of these measures. In the run-up to the 1998 elections, Chávez campaigned on the need to restructure state oil company PDVSA to reduce its autonomy from the government, something popular with voters as the company was widely perceived as a tool for elite and foreign enrichment (Rodríguez 1999). In an attempt to stick to his agenda, Chávez replaced numerous high-level managers in PDVSA and



restructured the company upon taking office, as well as pushed for changes to the company's relationship to the state in the new the Constitution (2000).<sup>6</sup> The 2001 Hydrocarbons Law increased royalty rates from 16.6% to 30% and the role of PDVSA in joint ventures to 51%. Although Chávez's MVR did not count on a majority of seats, his left-leaning coalition together controlled a majority of seats, thereby facilitating constitutional and policy reform.

Although Chávez was able to build support for statist energy policy reform, low oil prices during the late 1990s forced the government to avoid enforcing the new measures and, in fact, to announce cuts in PDVSA's investment plans, with the government hoping that the lion's share of investment would still come from private companies.<sup>7</sup> The Chávez administration swiftly changed strategies, however, following the dramatic rises in oil prices in the mid-2000s. Of course, Chávez continued to restructure PDVSA mostly in response to the strikes by oil workers against his regime during March - April 2002 and December 2002 – January 2003, laying off upper management and a reported 18,000 – 20,000 technical workers. In January 2003, the government divided the company into two regional units to decentralize operations from Caracas where most PDVSA opposition to the government was located (Palacios 2003). Energy and Oil Minister Rafael Ramírez was also made head of PDVSA in late 2004. Such control allowed the redirection of PDVSA income to governmental coffers, rather than through the Banco Central de Venezuela, raising governmental access to oil resources for its policy programs (Ixer 2004).

However, the government also approached private companies operating in marginal fields in early 2005 about migrating to new contracts under the new Hydrocarbons Law (2001). In addition to higher royalty payments, contract migration meant forming mixed companies, with private oil companies becoming minority shareholders in a state-owned company. The contract conversion was largely accomplished by mid 2006 when the

Chávez-dominated National Assembly approved the new contract terms and when most private companies agreed to sign on to the new terms in order to remain in Venezuela. The companies also accepted a rise in income taxes from 34% to 50%, as well as the payment of back taxes from 2001. Most energy analysts thought that heavy Orinoco production was unlikely to warrant much governmental interest thanks to PDVSA's lack of technical capacity for such projects. However, in May 2006, the National Assembly, where Chávez counted on a clear majority support, raised taxes and royalties on Orinoco projects and began to contemplate PDVSA majority control.

### **Bolivia: Large Natural Gas Discoveries Lead to Backtracking on Liberalization**

Though market-friendly presidents sought to increase fiscal revenues through a liberal hydrocarbons investment strategy in the 1990s as a result of low oil prices and production, left-leaning politicians in the 2000s dramatically increased state involvement in the sector to gain access to resources they believed would fund their policy programs. Newly discovered gas reserves combined with the rise of left-leaning leaders led to dramatic changes in Bolivian energy policy. Bolivia has the second largest natural gas reserves in Latin America, with 0.89tn cm (see Table 2). In 2004, Bolivia produced 0.8bn cf/d natural gas, mostly exported to Argentina and Brazil (Table 3). Natural gas is important to the nation's fiscal finances, where hydrocarbons account for about 40% state revenues and about 38% total exports (CERA 2006; Economist Intelligence Unit 2006).

The role of private investment in Bolivian natural gas production has been a controversial political issue since the 1990s when the Bolivian government's market-friendly President Gonzalo Sánchez de Losada (1993-1997) undertook measures to liberalize the sector when prices were low. State oil company YPFB was mostly privatized under the 1994

Capitalization Law (OECD/IEA 2003). The 1994 Capitalization Law along with the 1996 Hydrocarbons Law that gave favorable tax terms to private companies led to an influx of foreign investment and major new discoveries of natural gas (see Table 2). Although Losada and his Movimiento Nacionalista Revolucionario (MNR) did not count on a majority of legislative support, he was able to build coalitions around these measures among parties that recognized the economic and political gains from such a reform, and the law was quickly approved by congress with little debate. Capitalization was designed not only to help the Bolivian state unload state companies operating in certain sectors of the economy through the creating of mixed capital corporations with foreign investors, it was a means of funding a pension for citizens 65 years and older whereby the government transferred its holdings to this pension system.

Bolivia's market-friendly investment climate did not last. Bolivia's recent hydrocarbons strategies can be divided into two phases. The first includes efforts by re-elected Sánchez de Losada (June 2002 – October 2003) to maintain liberalizing reforms and to capitalize on rising natural gas prices through additional foreign investment. The second includes the reversal of the state's investor-friendly energy climate by an increasingly left-leaning congress and the newly elected left-leaning President Evo Morales. In 2003, the need cover fiscal deficits led President Sánchez de Losada to seek ways to capitalize on rising natural gas prices and raise investment in the sector. The government began discussions with private companies and the Chilean government about the construction of a natural gas pipeline that would feed an LNG plant on the Chilean coast. However, the objective was blocked by Bolivia's radicalizing political left. Workers already discontent with budget cuts and proposals to raise taxes and who had been striking on and off since the beginning of 2003 were easily galvanized by opposition leaders by announcements of the

planned cooperation with Chile.<sup>8</sup> The protests' principal leaders included Morales, who had just lost the 2002 presidential election to Sánchez de Losada by a narrow margin, and Felipe Quispe, leader of the Movimiento Indígena Pachakuti (MIP). Sánchez de Losada was forced to resign after governmental troops killed several protesters.

The government's liberal attitude toward hydrocarbons began to unravel in late 2003 with the resignation of Sánchez de Losada. To restore political stability, incoming President (former vice-president) Carlos Mesa (October 2003 – June 2005) promised protesters that he would hold a national referendum on how to develop the nation's hydrocarbons, pass new legislation that honored the referendum's results, and call a constituent assembly to rewrite the constitution. The July 2004 referendum set in motion the restatification of Bolivian hydrocarbons. In late 2004, the government submitted legislation to Congress that reflected a moderate interpretation of the referendum results. However, the increasingly left-leaning congress preferred a more radical interpretation and passed a different version in May 2005. Recent electoral reforms allow civic organization and independents to run candidates had led to a radical shift in the distribution of legislative seats to the left. Although ranging in their degree of radicalization on economic policy, these forces held similar views toward Bolivia's hydrocarbons sector and joined forces to push through a more radical version of the hydrocarbons legislation. Rather than vetoing the legislation and face massive protests and political and social instability, Mesa resigned from office shortly afterward.

The new Hydrocarbons Law (2005) radically increased in taxes on private investors, where added to the former 18% royalty would be a 32% direct tax on hydrocarbons production and where all profit, value-added, sales, and foreign remittances taxes would still apply. The law also called for the reconstitution of YPFB through the renationalization of two upstream companies (Andina and Chaco) formed as a result of the state oil company's

capitalization, the nationalization of hydrocarbons resources at the well-head (which would allow the government then to set prices for all gas extracted rather than the companies extracting it), and the forced migration of all existing contracts to the new terms of the law. State presence in the sector was cemented by the new President Morales on May 1, 2006 when he issued a decree calling for the nationalization of all hydrocarbons resources. Under the decree, YPF will pay companies for their services but private companies were given six months to renegotiate contracts and accept a significantly reduced percent share cut in the value of production. The new government has estimated that thanks to the sector restructuring tax revenues will be six times higher than in 2002.

### **Brazil: The Quest for Self-Sufficiency Supports Liberalization**

Despite growing reserves and production levels, the left-leaning administration of Luiz Inacio “Lula” da Silva (2002 – present) has continued to honor the liberalizing measures undertaken by prior governments. Brazil’s status as a traditional oil and natural gas importer that has only very recently become self-sufficient undermined the state’s fiscal incentive for large-scale state involvement in this sector. Even so, Brazil is one of Latin America’s most important oil producers and has the potential to become a net exporter in the next decades. In 2004, Brazil produced 1.5mn b/d oil and natural gas liquids (Table 3). In 2005, the nation produced 1.6mn b/d oil (Agência Nacional do Petróleo 2006).

President Fernando Henrique Cardoso (PSDB) pushed through a constitutional reform to end Petrobras’ monopoly in 1995.<sup>9</sup> The reform process was fraught with political difficulties as most parties, particularly the more radical left-leaning ones, opposed any form of privatization in the sector. However, a strike by Petrobras workers worked to the government’s advantage and turned many legislators against the state oil company and its

union, bringing them on board the reform. The amendment kept Petrobras in state hands but allowed private companies to participate in production through concessions (Kingstone 2004). Secondary legislation followed in 1997 that allowed Petrobras to undertake joint ventures with private companies (Kingstone 2004). In 1998, the state sold 28% of its voting shares in Petrobras. However, Petrobras remained under state control, despite its opening to private equity investors, with the state now holding a majority voting rights but a minority of shares. The company enjoys a privileged upstream position as it was allowed under the reforms to maintain rights to fields already under development and was given preferential access to another set of blocs with known reserves, with a three-year time limit for undertaking investment. The subsequent failure of companies to find commercially viable oil in these blocs has undermined the incentive for them to go it alone in Brazil. Most private investment since liberalization has come in the form of joint ventures with Petrobras, with very few private companies venturing to invest on their own.

Despite President da Silva's campaign rhetoric that criticized the nation's neo-liberal economic policy strategy and advertised his preference for state involvement in the economy, his administration has honored prior economic and energy policies. In fact, rather than facing popular and political pressures to increase state involvement in the energy sector, Brazil's left-leaning government has faced considerable pressure to increase oil (and natural gas) production in order to reach self-sufficiency and reduce the economic costs of oil and refined product imports. As a result, President da Silva continued to support the energy policies already in place that allow private investment in state-owned oil company Petrobras, as well as the role of private investors in oil production processes. This approach has paid off in the country's steadily increasing reserves ratios with new oil and gas discoveries and production levels with improving technology. In fact, Petrobras is now one of the world's

leading providers of deep-water exploration and production technology, giving it a market advantage both at home and abroad where it also participates in exploration and production projects with private and state-owned companies in other countries. Brazil's oil self-sufficiency and the rising profitability of Petrobras has encouraged the left-leaning government to accept the policy status quo.

### **Colombia: Falling Hydrocarbons Production Leads to Liberalization**

Despite its well-developed oil industry, Colombia's dramatic oil production declines in recent years have led to losses in state fiscal revenues, leading one of the most market-friendly administrations in Latin America not only to honor prior liberalizing measures but to speed up reforms to the nation's energy sector in a dramatic way. Colombia produces about 550,000 barrels per day (Table 3), with hydrocarbons accounting for about 20% exports, 4.5% GDP, and 28% state revenues. Despite this, Colombia has been struggling to protect its status as an oil exporter since the 1990s and, with no new discoveries, will become a net importer in the not too distant future.

Colombian hydrocarbons legislation in the 1970s facilitated private investment in the sector by allowing private companies to participate in upstream activities through product sharing agreements (joint ventures) with state-owned oil company Empresa Colombiana de Petróleos (Ecopetrol), who had the right to a 50% stake in any project. Under this regime, oil companies assumed all exploration risk and, if oil was found, Ecopetrol had the right to take a stake in the production phase of the project. This regime allowed Colombia to increase production during the 1970s and 1980s, during high price scenarios, but as oil prices declined in the 1990s these terms led to a decline in investor interest, leading many analysts at the time to conclude that oil reserves would be depleted by the late 2000s.

In response to the country's dire production prospects, the conservative government of Andrés Pastrana (1998 – 2002) undertook measures in 1999 with the support of congress to improve tax and royalty rates, reduce Ecopetrol's participation rights to 30%, and enhance oil field and pipeline security against guerrilla movements. Despite rising oil prices in the early 2000s, the nation's dwindling reserves and future production and related fiscal concerns led the pro-market President Alvaro Uribe (2002 – present) to continue measures to liberalize the sector. With the support of congress, Ecopetrol's participation requirement was removed, allowing companies to operate under concessions, while tax and royalty terms were improved (Agencia Nacional de Hidrocarburos 2006).

Though Ecopetrol still dominates upstream activities, it is now forced to compete with private companies for rights to fields, while the company was broken into three units, separating exploration and production (under the remodeled Ecopetrol, S.A.) from state oversight and regulatory activities (under the Agencia Nacional de Hidrocarburos). In July 2006, the government announced the partial privatization of Ecopetrol with the sale of up to a 20% equity stake to generate funds for the company to undertake upstream activities. The government hopes that with these reforms it can increase reserves and long term production prospects, thereby safeguarding an important source of fiscal revenues.

### **Ecuador: Fiscal Concerns Produce Policy Volatility**

Ecuador's hydrocarbons sector is dominated by its state oil company Empresa Estatal Petróleos de Ecuador (PetroEcuador). However, private companies are legally allowed to operate in Ecuador under service contracts and production sharing agreements. Indeed, production from PetroEcuador has declined over the past several years, raising the importance of private oil company production in overall output and exports. Ecuador's



economy is highly dependent on the hydrocarbons sector, with oil accounting for 40% exports, 12% GDP, and 34% state revenues. Ecuador produces about 550,000 barrels per day (Table 3).

Ecuador's attitude toward private sector participation can be divided into two distinct phases. The first phase includes attempts to undertake liberalizing reforms in the early 2000s to improve investment conditions during the presidency of Lucio Gutiérrez (2003 – 2005), the second includes a back-tracking on liberal attitudes toward private investors in the mid-2000s under the presidency of Alfredo Palacio (2005 – present). Though both leaders supported left-leaning policy objectives upon coming to office, only Alfredo Palacio has attempted to roll back the country's energy sector strategy in any significant way. These presidents' different hydrocarbons strategies, however, are understandable when put their country's overall fiscal context.

Ecuador's default on its sovereign debt in 1999 and 2000 debt restructuring raised the cost of financing in international capital markets, as well as forced the country to undertake a variety of neo-liberal economic reforms recommended by the IMF in exchange for this institution's support. Ecuador's historic fiscal imbalances meant that, despite growing oil revenues, the country continued to be at risk of running fiscal deficits in the early 2000s. As a result, the Gutiérrez administration was under considerable pressure to pursue neo-liberal economic reforms, as well as liberalizing measures to increase private investment in the hydrocarbons sector to ramp up production and thus the country's fiscal take. Not unsurprisingly, the government's hydrocarbons reforms failed to win approval by the left-leaning congress which saw no reason liberalize a sector that stood to become so fiscally lucrative down the line, and that was so controversial among politically powerful indigenous groups opposing private investment in this sector.

Ecuador's improved fiscal and external debt positions in 2004 and 2005, however, increased the incentives for the interim Palacio government to shift gears and take a hard-line stance toward private investors in the oil sector. Of course, one of the principal factors motivating the government was political instability caused by strikes by oil workers against PetroEcuador, indigenous groups against private oil company operations in the Amazon, and citizens against the government's negotiations with the US over the Free Trade of the Americas treaty. To stem unrest and raise revenues needed to satisfy citizen demands, the government passed legislation April 2006 to increase its fiscal take on all private company oil production to 60%. The Palacio administration had originally proposed a 50% take but the more left-leaning Congress amended the legislation. In May 2006, the government seized Occidental Petroleum's assets in one of this company's fields when it revoked its contract due to alleged contractual irregularities, something highly popular with citizens. The government claims that it will review all contracts with private companies to root out any illegalities or inconsistencies that must be corrected. Some analysts believe that the government is gearing up to renegotiate contracts in much the same way as in Venezuela.

Ecuador's fiscal position after the default in 1999 led the government immediately after to hope to improve the country's stable and increasing oil production in order to ensure fiscal health and continued social spending programs. But fiscal improvements in subsequent years led the next administration to seek to mollify citizens' demands for improved economic conditions through raising taxes and royalty rates on private participants in upstream oil activities rather than wait for fiscal benefits from future production.

### **Mexico: Presidents Face Constitutional Obstacles to Energy Sector Liberalization**

Although ruled by market-friendly leaders since the 1980s, successive Mexican administrations have found it difficult to enact liberalizing reforms during low oil price scenarios, leaving the Mexican hydrocarbons sector one of the most closed in the world. This pattern has remained the same, even with recent evidence that oil production is becoming more costly and beginning to drop. Rising oil prices, even in a context of slowly declining oil production, and where reforms require constitutional amendment makes policy change difficult. Mexico's state oil monopoly *Petróleos Mexicanos* (Pemex) produced 3.8mn barrels per day (b/d) of crude oil and natural gas liquids in 2004 (Table 3). Pemex reports average crude oil production of 3.3mn b/d in 2005, of which 1.8mn b/d were exported, mostly to the US (Pemex 2006). Pemex is the largest company in Mexico and its reserves and production rank it as the ninth largest oil company in the world (Petroleum Intelligence Weekly 2006). Taxes on Pemex have accounted for between 25% and 40% of Mexico's federal budget since 1990 (Secretaría de Hacienda y Crédito Público 2006). In 2005, they were 37% total governmental revenues. Mexico's economy is much less dependent on energy than Venezuela's economy and accounts for about 10% of export earnings and a much smaller share of GDP (Energy Information Agency 2006).

Hydrocarbons have been highly politicized in Mexico since their nationalization in the 1930s, the creation of Pemex in 1938, and amendments to Mexico's Constitution (1917) in 1958 forbidding private participation in all upstream activities.<sup>10</sup> This is not to say that no one has tried to reform the sector. Falling oil prices in the 1980s and 1990s led President Carlos Salinas de Gortari (1988 – 1994) to take steps to prepare the state oil monopoly for privatization when the government reorganized it into four subsidiaries in 1992 (Shields 2001). However, the political difficulty of constitutional reform stalled liberalization.

Constitutional reforms require the support of 2/3 legislators in the Chamber of Deputies and Senate, and the support of 51% of state legislatures.

The Mexican government's recent energy strategy can be divided into two distinct phases. The first includes efforts to liberalize the sector and the second reductions in taxes paid by Pemex. President Vicente Fox (2000 – 2006) and his Partido Acción Nacional (PAN) are known for their neo-liberal economic policy stance. Upon taking office in December 2000, the Fox administration expressed interest in opening the hydrocarbons sector to foreign investment but without privatizing Pemex. The government's objective, however, was derailed and no policies were introduced to Congress when no support could not be built for such measures (Shields 2005). The left-leaning Partido de la Revolución Democrática (PRD) opposed energy sector liberalization on ideological grounds while the Partido Institucional Revolucionario (PRI), though divided internally on the matter, opposed it formally as a means of maintaining the support of constituents. These parties, who between them counted on more than 50 percent congressional seats between 2000 and 2003, were unwilling to pay the political costs of supporting liberalization (Shields 2003). That ideology dictated Fox's attitude toward the sector, as well as that of the PRD and PRI, underscores its role in energy policy.

The Mexican government continued to seek ways to build support for reforms in the second half of the Fox administration. However, efforts failed to win even preliminary support among opposition politicians and policies were again never submitted to Congress (Shields 2005). Most opposition politicians, especially those on the left, continued to refuse to support private investment in upstream activities, arguing that governmental oil income was sufficient to undertake costly exploration projects without private participation.<sup>11</sup> Even so, evidence about Pemex's growing indebtedness, declining reserves, and the company's

lack of resources for costly exploration that had been circulating since the beginning of Fox's term began to gain traction among members of all parties and support emerged for the first time for a reform to Pemex's tax regime. In 2005, Congress approved a fiscal reform to reduce Pemex's tax burden, if only minimally. However, reform attempts were limited to shifts in Pemex's tax and royalty regime as rising oil prices offset the short-term fiscal costs of declining oil production and the lack of foreign investment in the sector. Most legislators appear ready to accept the policy status quo and thus to retain the political benefits of state oil resources, even if future legislators will pay the costs of maintaining the policy status quo.

### **The Fiscal and Political Foundations of Resource Nationalism in Latin America**

This article studies recent trends in resource nationalism in Latin America. It argues that high state resources from hydrocarbons combine with presidential and legislative support for statist economic development strategies are instrumental for increased state involvement in the sector. When left-leaning governments expect to enjoy considerable hydrocarbons rents, they have an incentive to increase state presence in hydrocarbons production in order fulfill their economic promises in other areas. Whether or not they can achieve these goals, however, depends on whether they can build the support necessary to pass them into law in national legislatures. In contrast, when left-leaning governments face declining or only minimal fiscal benefits from hydrocarbons production, they prefer to allow private companies undertake investment risk and will honor prior liberalizing trends or even put them into motion where they do not as yet exist, provided they count on sufficient legislative support. In contrast, centrist or right-leaning administrations prefer to leave the state out of energy as much as possible, though they are usually tempted to increase tax and royalty rates when hydrocarbons prices are high.

Table 6 summarizes the findings of this study. The region's most currently most left-leaning hydrocarbons producing administrations, Chávez in Venezuela and Morales in Bolivia, have undertaken the most dramatic measures to increase state presence in on upstream oil and natural gas activities, as well as large rises to tax and royalty rates on companies continuing to operate in the sector. Though not nearly as extreme, Ecuador's left-leaning Palacio administration, too, found reason to leverage its stable reserves and increasing production into increased taxes and royalty rates, and to a certain extent increased state oversight into upstream activities with its decision to review contracts and expel any companies in breach. In contrast, countries whose left-leaning administrations have been concerned about future production, like da Silva in Brazil, have honored liberalizing strategies undertaken by prior governments. Brazil's traditional status as an oil importer led its government to honor the liberalizing measure undertaken in the 1990s to continue to increase production and thus reduce the economic costs of importing oil and refined products. In these cases, reserves, production, and fiscal outlooks loom large in government's minds, even during high price scenarios that bring immediate fiscal rewards.

-- Table 6 about Here --

The countries with more market-friendly regimes under study here and included in Table 6 all sought to honor or undertake further liberalizing measures, despite high hydrocarbons prices, as noted in Hypothesis 3. Colombia faced declining reserves and declining levels of production and thus was pushed to undertake dramatic liberalizing reforms to attract investment to the sector. In Mexico, the administration sought to open upstream activities to private investment for the first time, though the left saw no need for liberalization as long as production and governmental revenues were high. Even so, all parties, even the left, saw merit in reducing Pemex's tax burden to help increase reserve

replacement ratios, as in Brazil and Colombia. This last finding reveals that more market-oriented governments have an incentive to improve tax structures, even when prices for oil are high and they face declining reserves or production.

Though this article focuses on recent trends in Latin American resource nationalism, the analysis here also helps explain when left-leaning administrations in this region and in emerging market nations more generally can move economic policy in a statist direction and when they cannot. Major commodities producing nations like Bolivia, Ecuador, and Venezuela that are governed by leaders predisposed to state intervention in the economy have not only increased state presence in the those sectors responsible for fiscal windfalls but also in the economy more broadly in a way that would not normally be supported by investors. High commodities resources widen the range of policies available to governments, giving them considerable room for policy maneuver. Commodities producers facing only self-sufficiency declining or production, as was shown to be the case in Brazil, Colombia, and Mexico, regardless of their government's policy agendas, find that the range of policies available to them is reduced, encouraging them to adopt a market-friendly attitude toward their lucrative commodities sectors, as well as a broader neo-liberal economic policy stance preferred by investors. Even so, the only way for them to implement such policies is to see them approved by congress.

The capacity for left-leaning leaders to increase state control in the hydrocarbons sector also affects the strength of their leverage in the economy more generally. Fiscal revenues generated from hydrocarbons, mineral, or other agricultural commodities exports (supporting "rentier" states) that are often controlled by state companies or a very few private (often foreign) businesses allow left-leaning governments more flexible attitudes toward economic policy-making in other areas during high commodities price scenarios.

Commodities windfalls increase investor confidence about the short-term prospects for economic growth and the capacity of governments to meet domestic and international financial obligations, even amidst expansionary fiscal and statist economic policies. In this case, governments can afford the price of their ideological preferences. In contrast, governments whose fiscal finances depend on maintaining neo-liberal economic policies, a broad domestic tax base (supporting “extractive” states), and access to cheap credit in international capital markets are limited in their capacities to pursue statist economic or expansionary fiscal policies. Any measures along these lines would lead to negative reactions by investors, triggering capital flight, rises in the cost of financing sovereign debt, and sometimes economic downturns. In this case, the price of ideology is too high.



## Notes

<sup>1</sup> Studies of the “resource curse” include Auty (1990), Gelb (1988), Neary and van Wijnbergen (1986), Ross (1999), and Sachs and Warner (1999).

<sup>2</sup> See Ascher (1999), Chaudhry (1989), Chaudhry (1997), Karl (1997), and Moore (2001).

<sup>3</sup> See Okruhlik (1999), Ross (2001a), Ross (2001b), Smith (2004), and Wantchekon (1999).

<sup>4</sup> See Randall (1987) for a history of the nationalization process.

<sup>5</sup> See Guisti (1999) and Palacios (2001) for descriptions of the 1990s opening.

<sup>6</sup> The 2000 Constitution forbids private equity participation in PDVSA (Palacios 2003).

<sup>7</sup> *Petroleum Economist*, July 1999.

<sup>8</sup> Bolivian-Chilean relations have been tense since the late 18<sup>th</sup> century when Bolivia relinquished access to the sea after losing a war with Chile.

<sup>9</sup> See Randall (1993) for a sector history and Kingstone (2004) for the reform process.

<sup>10</sup> See Grayson (1980), Meyer (1990), and Palacios (2001) for a history of Mexican oil.

<sup>11</sup> *Reforma*, December 19, 2004.

**Table 1: The Range of Possible Energy Sector Structures**

<b>Statist</b>					<b>Liberal</b>
<b>100% State Control</b>	<b>Service Contracts</b>	<b>Risk Service Contracts</b>	<b>Product Sharing Agreements</b>	<b>Concessions</b>	<b>100% Privatized</b>
<p>The government exerts 100% state control over the hydrocarbons sector through a state oil company*. There is no participation from other companies in the sector.</p>	<p>Companies** are paid a flat fee for services provided to the state oil company. This fee is fixed and guaranteed, and does not depend on the level of hydrocarbons extracted.</p>	<p>Private companies are allowed to participate with the state oil company in a way that lets them receive a part of the profits for hydrocarbons extracted in cash or kind. In this way, the company shares the risks and rewards of production with the state-owned oil company.</p>	<p>These are usually joint ventures between the state oil company and other companies in the production of hydrocarbons. The state oil company and other company agree on the percent share of oil extracted each will receive. In this way, the company shares the risks and rewards of production with the state-owned oil company.</p>	<p>Concessions are a type of contract between a company and the government that gives the company a license to develop an area for a certain period of time. In some cases, state oil companies – where they exist - must compete against other companies for these contracts. Concession holders own total production from the area but pay fees, taxes, and royalties on that production to the government.</p>	<p>The complete divestment of the state in the hydrocarbons sector, including the privatization of the state oil company. The government usually manages the sector, however, through some sort of oil ministry and oversight agency.</p>

Source: Palacios (2003) and discussions with energy sector specialists. Note: \*State oil company is used to refer to the state oil company from that country specifically. \*\*Companies can include domestic and foreign private oil companies, and foreign state oil companies. Sometimes state oil companies from other nations seek to increase their operations abroad.

**Table 2: Proven Oil and Natural Gas Reserves in Selected Countries in Latin America and the Middle East**

	Oil Reserves (billion barrels)				Natural Gas Reserves (trillion cubic meters)			
	1980	1990	2000	2004	1980	1990	2000	2004
<b><i>Latin America</i></b>								
Argentina	2.5	1.6	3.0	2.7	0.64	0.66	0.78	0.61
Bolivia					0.12	0.11	0.68	0.89
Brazil	1.3	4.5	8.5	11.2	0.05	0.12	0.22	0.33
Colombia	0.6	2.0	2.0	1.5	0.12	0.10	0.13	0.11
Ecuador	1.0	1.4	4.6	5.1	1.83	2.03	0.84	0.42
Mexico	47.2	51.3	26.9	14.8	1.83	2.03	0.84	0.42
Trinidad & Tobago	0.6	0.6	0.7	1.0	0.30	0.25	0.56	0.53
Venezuela	19.5	60.1	76.8	77.2	1.26	3.43	4.15	4.22

Source: British Petroleum (2006).

**Table 3: Hydrocarbons Production\* and Exports\*\* in Selected Latin American Countries**

	Oil (thousands of barrels per day)						Natural Gas (billions of cubic feet per day)					
	1990	2000	2001	2002	2003	2004	1990	2000	2001	2002	2003	2004
<b>Production</b>												
Argentina	517.4	818.7	830.0	817.5	805.5	755.8	1.7	3.6	3.6	3.5	4.0	4.3
Bolivia							0.3	0.3	0.5	0.5	0.6	0.8
Brazil	650.0	1,268.0	1,337.0	1,499.0	1,555.0	1,542.0	0.4	0.7	0.7	0.9	1.0	1.1
Colombia	446.0	711.0	627.0	601.0	564.0	551.0	0.4	0.6	0.6	0.6	0.6	0.6
Ecuador	292.0	409.0	416.0	401.0	427.0	535.0						
Mexico	2,977.0	3,450.0	3,560.0	3,585.0	3,789.0	3,824.0	2.6	3.5	3.4	3.4	3.5	3.6
Trin & Tob	150.0	138.0	135.0	155.0	164.0	155.0	0.5	1.4	1.5	1.7	2.4	2.7
Venezuela	2,244.0	3,321.0	3,233.0	3,218.0	2,622.0	2,980.0	2.1	2.7	2.9	2.7	2.4	2.7
<b>Exports</b>												
Argentina	29.3	422.5	402.5	387.5	424.5	453.9	-0.3	0.4	0.6	0.6	0.7	0.6
Bolivia							0.3	0.3	0.5	0.5	0.6	0.8
Brazil	-966.9	-797.0	-746.1	-587.5	-559.0	-353.8	0.0	-0.2	-0.4	-0.5	-0.5	-0.7
Colombia	-38.8	509.1	600.3	479.0	382.1	379.5	0.0	0.0	0.0	0.0	0.0	0.0
Ecuador	143.0	240.3	251.6	280.3	284.2	270.0						
Mexico	1,095.2	1,655.1	1,501.3	1,566.1	1,660.6	1,748.5	0.0	-0.2	-0.4	-0.7	-0.9	-1.0
Trin & Tob							0.5	1.4	1.5	1.7	2.4	2.7
Venezuela	1,813.4	3,034.7	2,774.3	2,824.6	2,687.9	2,624.1	0.0	0.0	0.0	0.0	0.0	0.0

Source: British Petroleum (2006). Note: \* Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids - the liquid content of natural gas where this is recovered separately). \*\* Exports are calculated from production and consumption figures.

**Table 4: Price Trends for Oil and Natural Gas, 1985-2006**

<b>Year</b>	<b>Oil Prices in \$US 2004 per barrel*</b>	<b>Natural Gas Prices in \$US per thousand cubic feet**</b>
1985	27.01	2.51
1986	13.53	1.94
1987	17.73	1.67
1988	14.24	1.69
1989	17.31	1.69
1990	22.26	1.71
1991	18.62	1.64
1992	18.44	1.74
1993	16.33	2.04
1994	15.53	1.85
1995	16.86	1.55
1996	20.29	2.17
1997	18.68	2.32
1998	12.28	1.96
1999	17.47	2.19
2000	27.60	3.68
2001	23.12	4.00
2002	24.36	2.95
2003	28.10	4.88
2004	36.05	5.46
2005	50.64	7.51
2006	64.84***	7.49****

Source: Energy Information Agency (2006) and OPEC (2006).  
Note: \*Price based on yearly average for the OPEC Reference Basket (ORB). ORB is the average of prices for Saharan Blend (Algeria), Minas (Indonesia), Iran Heavy (Islamic Republic of Iran), Basra Light (Iraq), Kuwait Export (Kuwait), Es Sider (Libya), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (UAE) and BCF 17 (Venezuela). \*\*Average price for US states at wellhead.  
\*\*\*Price for ORB on June 1, 2006. \*\*\*\*Average of price for January, February, and March 2006.

**Table 5: The Structure of Upstream Hydrocarbons Activities in Selected Latin American Nations (as of mid-2006)**

Country	State Oil Company		State Oil Company's Role in Upstream Hydrocarbons Activities			Nature of Private Sector Participation in Upstream Hydrocarbons Activities	
	Name*	Date of Creation	Level of State Ownership of State Oil Company	Share of Oil Production**	Share of Gas Production**	Risk Service Contracts or Product Sharing Agreements	Concessions
Argentina	ENARSA	2004 <sup>a</sup>	Total	None yet	None yet	yes <sup>b</sup>	yes
Bolivia	YPFB	1936/2005 <sup>c</sup>	Total	None yet	None yet <sup>d</sup>	yes	no
Brazil	Petrobras	1953	Partial	High	High	yes	yes
Colombia	Ecopetrol	1951/2003 <sup>e</sup>	Total <sup>f</sup>	Medium	Low	yes	yes
Ecuador	PetroEcuador	1972/1989 <sup>g</sup>	Total	Medium	Medium	yes	no
Mexico	Pemex	1938	Total	Exclusive	Exclusive	no	no
Trin. & Tobago	Petrotrin	1993	Total	Medium-Low	Low	yes	no
Venezuela	PDVSA	1975	Total	Medium	High	yes	no <sup>h</sup>

Source: Palacios (2003), Energy Information Agency (2006), Secretaría de Energía (2000), YPFB (2006), Petrobras (2006), Ecopetrol (2006), Agencia Nacional de Hidrocarburos (2006), PetroEcuador (2006), Ministerio de Energía y Minas (2006), Pemex (2006), Ministry of Energy and Energy Industries (2006), Petrotrin (2006), PDVSA (2006). Note: \*Ecopetrol: Empresa Colombiana de Petróleos; ENARSA: Energía Argentina, SA; PDVSA: Petróleos de Venezuela, SA; Pemex: Petróleos Mexicanos; Petrobras: Petróleo Brasileiro S/A; PetroEcuador: Empresa Estatal Petróleos de Ecuador; Petrotrin: Petroleum Company of Trinidad & Tobago; YPFB: Yacimientos Petrolíferos Fiscales Bolivianos. \*\*Share of Oil and Natural Gas Production Rankings: None: 0%; Low: 1%-20%; Medium-Low: 20%-40%; Medium: 40%-60%; Medium-High: 60%-80%; High: 80%-99%; Exclusive: 100%.

<sup>a</sup> ENARSA has not yet played a role in oil production, though the company has rights to off-shore blocs not awarded as concessions.

<sup>b</sup> ENARSA is empowered to form consortiums with private companies in off-shore areas but none have yet been formed.

<sup>c</sup> YPFB was partially privatized in 1994 but the new Hydrocarbons Law (May 2005) requires its reconstitution as fully state-owned.

<sup>d</sup> Between the mid-1990s and the 2005 Hydrocarbons Law, all natural gas production was in the hands of private companies under shared-risk contracts with YPFB (OECD/IEA 2003). Even so, YPFB did not physically participate in upstream activities as it had no physical assets. The 2005 law forces private companies to change their contracts to production sharing agreements with YPFB.

<sup>e</sup> Ecopectrol was reconstituted in 2003 into an exploration and production company when its regulatory and oversight activities were hived off under the newly created Agencia Nacional de Hidrocarburos (ANH).

<sup>f</sup> In July 2006 measures were approved to allow the sale of up to 20% of Ecopectrol equity.

<sup>g</sup> Petroecuador was created in 1989 to replace former state oil company Corporación Estatal Petrolera Ecuatoriana (CEPE). Petroecuador oversees companies operating in upstream and downstream activities. CEPE was founded in 1972.

<sup>h</sup> Concessions are not allowed in oil and associated natural gas but they are allowed in non-associated natural gas (Palacios 2003).

**Table 6: Governmental Ideology, Hydrocarbons Revenues, and Energy Sector Strategy in Selected Latin American Countries**

Country	President <i>Term</i>	Ideology	State Revenues from Oil/Gas <i>Mid-2000s</i>	Principal Hydrocarbons Resource <i>Mid 2000s</i>			Tax and Royalty Strategy		Energy Sector Strategy	
				Type	Reserves	Production	1990s	Mid-2000s	1990s	Mid-2000s
Venezuela	H. Chávez (2000-06)	Left-leaning	47%	Oil	Stable	Stable	Reductions	Large Increases	Liberalizing Reforms	Increased Statism
Bolivia	E. Morales (2005-09)	Left-leaning	40%	Natural Gas	Stable	Stable	Reductions	Large Increases	Partial Privatization	Increased Statism
Ecuador	A. Palacio (2005-07)	Left-leaning	34%	Oil	Stable	Increasing	Reductions	Increases	Liberalizing Reforms	Limited statism
Brazil	L. I. da Silva (2002-06)	Left-leaning	10%*	Oil	Stable	Increasing	Reductions	No change	Liberalizing Reforms	No change
Colombia	A. Uribe (2002-06)	Right-leaning	28%	Oil	Declining	Decreasing	Reductions	Additional Reductions	Liberalizing Reforms	Additional Reforms
Mexico	V. Fox (2000-06)	Right-leaning	37%	Oil	Declining	Stable	Remained High	Small Reductions	Remained Closed	No change

Source: Tables 2, 3, 5 and text. Note: \* Estimate (see text).



## References

- Agencia Nacional de Hidrocarburos. 2006. República de Colombia. Available from <http://www.anh.gov.co>. Accessed July 27 2006.
- Agência Nacional do Petróleo, Gás Natural e Biocombustíveis. 2006. República do Brasil. Available from <http://www.anp.gov.br>. Accessed June 24 2006.
- Ames, Barry. 2001. *The Deadlock of Democracy in Brazil: Interests, Identities, and Institutions in Comparative Politics*. Ann Arbor: University of Michigan Press.
- Ascher, William. 1999. *Why Governments Waste Natural Resources: Policy Failures in Developing Countries*. Baltimore, MD: Johns Hopkins University Press.
- Auty, Richard. 1990. *Resource-Based Industrialisation: Sowing the Oil in Eight Developing Countries*. New York: Oxford University Press.
- Bates, Robert, and Anne Krueger, eds. 1993. *Political and Economic Interactions in Economic Policy Reform*. Oxford: Blackwell.
- Biglaiser, Glen, and Karl DeRouen. 2006a. Economic Reforms and Inflows of Foreign Direct Investment in Latin America. *Latin American Research Review* 41 (1):51-75.
- Biglaiser, Glen, and Karl DeRouen. 2006b. Title. Unpublished manuscript, Texas Tech University and The University of Alabama.
- Boix, Carles. 2000. Partisan Governments, the International Economy, and Macroeconomic Policies in Advanced Nations, 1960-93. *World Politics* 53:38-73.
- British Petroleum. 2006. Available from <http://www.bp.com>. Accessed June 16 2006.
- CERA. 2006. *Is a New Latin America Map of Influence in the Making?* Latin America Energy Watch. February 2006.
- Chaudhry, Kiren Aziz. 1989. The Price of Wealth: Business and State in Labor Remittance and Oil Economies. *International Organization* 43 (1):101-45.
- Chaudhry, Kiren Aziz. 1997. *The Price of Wealth: Economies and Institutions in the Middle East*. Ithaca, NY: Cornell University Press.
- Cox, Gary W., and Mathew D. McCubbins. 2001. The Institutional Determinants of Economic Policy Outcomes. In *Presidents, Parliaments, and Policy*, edited by Stephan Haggard and Mathew D. McCubbins. Cambridge: Cambridge University Press.
- Crisp, Brian F. 2000. *Democratic Institutional Design: The Powers and Incentives of Venezuelan Politicians and Interest Groups*. Stanford: Stanford University Press.
- Economist Intelligence Unit. 2006. Bolivia economy: Strong fiscal performance continues. Available from <http://www.viewswire.com>. Accessed June 17 2006.
- Ecopetrol. 2006. Available from <http://www.ecopetrol.com.co>. Accessed May 10, 2006.
- Energy Information Agency. 2006. Available from <http://www.eia.doe.gov>. Accessed May 2 2006.
- Garrett, Geoffrey. 1998. Global Markets and National Politics: Collision Course or Virtuous Circle? *International Organization* 52 (4):787-824.
- Garrett, Geoffrey, and Peter Lange. 1991. Political Responses to Interdependence: What's "Left" for the Left? *International Organization* 45 (4):539-64.
- Gastanaga, Victor M., Jeffrey B. Nugent, and Bistra Pashamova. 1998. Host Country Reforms and FDI Inflows: How Much Difference do they Make? *World Development* 26 (7):1299-1314.
- Geddes, Barbara. 1994. *Politician's Dilemma: Building State Capacity in Latin America*. Berkeley and Los Angeles: University of California Press.

- Gelb, Alan H. 1988. *Oil Windfalls: Blessing or Curse?* New York: Oxford University Press.
- Giusti, Luis. 1999. La Apertura: The Opening of Venezuela's Oil Industry. *Journal of International Affairs* 53 (1):117-29.
- Golub, Stephen S. 2003. Measures of Restrictions on Inward Foreign Direct Investment for OECD Countries. *OECD Economic Studies* 36 (1):85-116.
- Grayson, George W. 1980. *The Politics of Mexican Oil*. Pittsburgh: University of Pittsburgh Press.
- Haggard, Stephen, and Robert Kaufman, eds. 1992. *The Politics of Economic Adjustment: International Constraints, Distributive Conflicts, and the State*. Princeton: Princeton University Press.
- Haggard, Stephen, and Robert R. Kaufman. 1995. *The Political Economy of Democratic Transitions*. Princeton: Princeton University Press.
- Helleiner, Eric. 1994. The World of Money: The Political Economy of International Capital Mobility. *Policy Sciences* 27 (4):295-98.
- Henisz, Witold. 2000. The Institutional Environment for Multinational Investment. *Journal of Law, Economics and Organization* 16 (2):631-49.
- Henisz, Witold. 2006. Title. Unpublished manuscript, University of Pennsylvania, The Wharton School, Philadelphia.
- Ixer, Steve. 2004. Venezuela steers windfall oil funds to infrastructure. *Platts Oilgram News*, August 5, 2004.
- Jensen, Nathan M. 2003. Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct. *International Organization* 57 (5):587-616.
- Jones, Mark P. 1995. *Electoral Laws and the Survival of Presidential Democracies*. Notre Dame: University of Notre Dame Press.
- Karl, Terry Lynn. 1997. *The Paradox of Plenty: Oil Booms and Petro-States*. Berkeley: University of California Press.
- Kingstone, Peter. 2004. *The Long (and Uncertain) March to Energy Privatization in Brazil*. Critical Issues in Brazil's Energy Sector. March 2004.
- Li, Quan, and Adam Resnick. 2003. Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries. *International Organization* 57 (1):175-211.
- Luong Jones, Pauline and Erika Weinthal. 1999. Prelude to the Resource Curse: Oil and Gas Development Strategies in Central Asia and Beyond. In *New Haven: Yale University: Leitner Working Paper* 1999-08.
- Mainwaring, Scott. 1999. *Rethinking Party Systems in the Third Wave of Democratization: The Case of Brazil*. Stanford: Stanford University Press.
- Meyer, Lorenzo, and Isidro Morales. 1990. *Petróleo y Nación (1900-1987): La Política Petrolera en México*. D.F., México: fondo de Cultura Económica.
- Ministerio de Energía y Minas. 2006. Available from <http://www.menergia.gov.ec>. Accessed May 25, 2006.
- Ministerio de Finanzas. 2006. República Bolivariana de Venezuela. Available from <http://www.mf.gov.ve>. Accessed May 10 2006.
- Ministry of Energy and Energy Industries. 2006. Available from <http://www.energy.gov.tt>. Accessed June 16, 2006.
- Moore, Mick. 2001. Political Underdevelopment: What Causes 'Bad Governance'? *Public Management Review* 3 (3):1-34.

- Mosley, Layna. 2000. Room to Move: International Financial Markets and National Welfare States. *International Organization* 54 (4):737-73.
- Mosley, Layna. 2003. *Global Capital and National Governments*. New York: Cambridge University Press.
- Naím, Moisés. 1995. *Latin America's Journey to the Market: From Macroeconomic Shocks to Institutional Therapy*. San Francisco, Calif.: ICS Press.
- Neary, J. Peter, and Sweder van Wijnbergen, eds. 1986. *Natural Resources and the Macroeconomy*. Cambridge, MA: MIT Press.
- OECD/IEA. 2003. *South American Gas: Daring to Tap the Bounty*. Paris, France: Organization for Economic Cooperation and Development and the International Energy Agency.
- Okruhlik, Gwenn. 1999. Rentier Wealth, Unruly Law, and the Rise of Opposition: The Political Economy of Oil Status. *Comparative Politics* 31 (3):295-316.
- OPEC. 2006. Available from <http://www.opec.org>. Accessed June 16, 2006.
- Packenham, Robert. 1994. *The Politics of Economic Liberalization*. Notre Dame: The Kellogg Institute.
- Palacios, Luisa. 2001. Explaining Policy Choice in the Oil Industry: A Look at Rentier Institutions in Mexico and Venezuela (1988 - 1999). Ph.D. Dissertation, Johns Hopkins University, Washington, D.C.
- Palacios, Luisa. 2003. *An Update on the Reform Process in the Oil and Gas Sector in Latin America*. Japan Bank for International Cooperation.
- PDVSA. 2006. Available from <http://www.pdvsa.com>. Accessed March 15, 2006.
- Pemex. 2006. Available from <http://www.pemex.com>. Accessed May 5, 2006.
- Petrobras. 2006. Available from <http://www.petrobras.com.br>. Accessed June 18, 2006.
- PetroEcuador. 2006. Available from <http://www.petroecuador.com.ec>. Accessed June 16, 2006.
- Petroleum Intelligence Weekly. 2006. Available from <http://www.energyintel.com/>. Accessed May 5, 2006.
- Petrotrin. 2006. Available from <http://www.petrotrin.com>. Accessed May 15 2006.
- Randall, Laura. 1987. *The Political Economy of Venezuelan Oil*: Praeger Publishers.
- Randall, Laura. 1993. *The Political Economy of Brazilian Oil*. Westport: Praeger.
- Rodríguez, Ali. 1999. Venezuela: Steady Hand Ready for the Task Ahead. *Petroleum Economist*, July 1999, 83-85.
- Ross, Michael L. 1999. The Political Economy of the Resource Curse. *World Politics* 51 (2).
- Ross, Michael L. 2001a. Does Oil Hinder Democracy? *World Politics* 53 (3):325-61.
- Ross, Michael L. 2001b. *Timber Booms and Institutional Breakdown in Southeast Asia*. Cambridge: Cambridge University Press.
- Sachs, Jeffrey D., and Andrew M. Warner. 1999. The Big Push: Natural Resources Booms and Growth. *Journal of Development Economics* 59:43-76.
- Samuels, David. 2003. *Ambition, Federalism, and Legislative Politics in Brazil*. Cambridge: Cambridge University Press.
- Secretaría de Energía. 2006. Available from <http://energia3.mecon.gov.ar>. Accessed April 5, 2006.
- Secretaría de Hacienda y Crédito Público. 2006. República Mexicana. Available from <http://www.shcp.gob.mx>. Accessed May 14, 2006.

- Shields, David. 2001. Mexican Pipeline: The Future of Oil Under Vicente Fox. *NACLA Report on the Americas*, 31-37.
- Shields, David. 2003. *Pemex: Un Futuro Incierto*. D.F., Mexico: Editorial Planeta Mexicana, S.A. de C.V.
- Shields, David. 2005. *Pemex: La Reforma Petrolera*. D.F., Mexico: Editorial Planeta Mexicana, S.A. de C.V.
- Shugart, Matthew Soberg. 1995. The Electoral Cycle and Institutional Sources of Divided Presidential Government. *American Political Science Review* 89 (2):327-43.
- Shugart, Matthew Soberg, and John M. Carey. 1992. *Presidents and Assemblies: Constitutional Design and Electoral Dynamics*. Cambridge: Cambridge University Press.
- Simmons, Beth A. 1999. The Internationalization of Capital. In *Continuity and Change in Contemporary Capitalism*, edited by Herbert Kitschelt, Peter Lange, Gary Marks and John Stephens. Cambridge: Cambridge University Press.
- Smith, Benjamin. 2004. Oil Wealth and Regime Survival in the Developing World, 1960-1999. *American Journal of Political Science* 48 (4):232-46.
- Stallings, Barbara. 1992. International Influence on Economic Policy: Debt, Stabilization, and Structural Reform. In *The Politics of Economic Adjustment: International Constraints, Distributive Conflicts, and the State*, edited by Stephen Haggard and Robert Kaufman. Princeton: Princeton University Press.
- Stein, Ernesto, and Christian Daude. 2001. *Institutions, Integration and the Location of Foreign Direct Investment*.
- Strange, Susan. 1996. *The Retreat of the State: The Diffusion of Power in the World Economy*. New York: Cambridge University Press.
- Tarzi, Shah M. 1999. Financial Globalization and National Macroeconomic Policies: Managerial Challenges to the Nation-State. *The Journal of Social, Political and Economic Studies* 24 (2):141-61.
- Tarzi, Shah M. 2001. Attracting Portfolio Capital Inflows: National Political and Economic Attributes of Emerging Markets. *The Journal of Social, Political and Economic Studies* 26 (2):461-85.
- Tsebelis, George. 2002. *Veto Players: How Political Institutions Work*. New York and Princeton: Russell Sage Foundation and Princeton University Press.
- Tuman, John Peter, and Craig F. Emmert. 2004. The Political Economy of U.S. Foreign Direct Investment in Latin America: A Reappraisal. *Latin American Research Review* 39 (3):9-28.
- Vacs, Aldo. 1994. Convergence and Dissention. In *Latin American Political Economy in the Age of Neoliberal Reform*, edited by William Smith, Carlos Acuna and Eduardo Gamarra. New Brunswick: Transaction.
- Wantchekon, Leonard. 1999. *Why do Resource Dependent Countries Have Authoritarian Governments?* Leitner Working Paper 1999-11.
- Wibbels, Erik. 2006. Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World. *International Organization* 60 (2):433-68.
- YPFB. 2006. Available from <http://www.ypfb.gov.bo>. Accessed March 5, 2006.