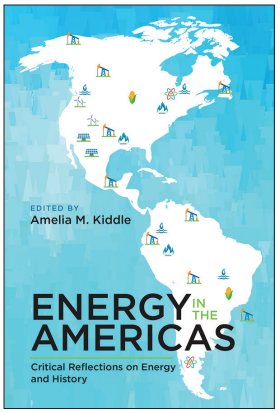
UNIVERSITY OF CALGARY
Press



ENERGY IN THE AMERICAS: CRITICAL REFLECTIONS ON ENERGY AND HISTORY

Edited by Amelia M. Kiddle

ISBN 978-1-55238-940-9

THIS BOOK IS AN OPEN ACCESS E-BOOK. It is an electronic version of a book that can be purchased in physical form through any bookseller or on-line retailer, or from our distributors. Please support this open access publication by requesting that your university purchase a print copy of this book, or by purchasing a copy yourself. If you have any questions, please contact us at ucpress@ucalgary.ca

Cover Art: The artwork on the cover of this book is not open access and falls under traditional copyright provisions; it cannot be reproduced in any way without written permission of the artists and their agents. The cover can be displayed as a complete cover image for the purposes of publicizing this work, but the artwork cannot be extracted from the context of the cover of this specific work without breaching the artist's copyright.

UNIVERSITY OF CALGARY
Press
press.ucalgary.ca

Acknowledgement: *We acknowledge the wording around open access used by Australian publisher,* **re.press**, *and thank them for giving us permission to adapt their wording to our policy* http://www.re-press.org

1

Unpacking Latin American Oil and Gas Policies: Views on Energy as a Market, Common, and Political Good

Pablo Heidrich

Since the early twenty-first century, North American and European debates on Latin American oil and gas issues have consistently shown concerns about a resurgent "resource nationalism." This is particularly the case when it comes to the policy changes made in several countries in the region, from Chavez's Venezuela and Morales's Bolivia, to Brazil, Argentina, or even Ecuador.[1] A couple of decades earlier, when most Latin American countries and others in the developing world were enacting pro-market reforms in their energy sectors during the 1980s, a similar analysis helped observers imagine that such changes would increase production, income, and economic development for these countries, bringing along wide support from local populations for market rules in the energy sector.[2] We now know, however, that these developments did not come to pass. In fact, popular resistance and electoral backlash against those pro-market reforms in energy policies were fundamental to changes in government in several countries, namely, Bolivia, Brazil, Ecuador, Peru, and Venezuela, and they contributed significantly to protests in several others, such as Argentina, Chile, and Mexico.[3]

This chapter argues that the concept of resource nationalism (RN), used systematically since the 1970s to assess energy policies in developing countries, needs to be further specified to interpret policy evolutions in the oil and gas industry in Latin America, and most likely in other parts of the world as well. As theories of interpretation go, current versions of RN lack the capacity to explain policy choices because they are based on a fundamentally external view of what are in fact internal decisions, and as such, they suffer from an excessive sector-specific bias that impedes an understanding of the crucially embedded nature of energy policy-making in the pursuit of economic development. In other words, analyses employing RN as a guiding concept need to move beyond viewing energy policy as a field where nationalism is simply invoked against foreign or international energy firms and their direct or indirect domestic supporters, and instead fully incorporate the wider development goals governments have when enacting them.

To this end, this chapter develops a different set of concepts to interpret the resurgence of RN in Latin American energy policies. Grounded on more widely used precepts of political economy, as already employed in other areas of public policy, energy policy is defined here by taking its subject matter—energy—as either a market, common, or political good. This perspective has several advantages over externally driven views or energy-sector-specific theories such as resource nationalism. Firstly, it standardizes and integrates energy with other subjects and goals of public economic policy-making—the goal being to facilitate a less industry-specific analysis that can then better link energy policy-making with other aspects of government policy, such as infrastructure, industry, income inequality, poverty reduction, or international trade. Secondly, this alternative is a priori neutral to the outcomes of energy policy in terms of states' and markets' relative spheres of governance, giving theoretical equanimity to perspectives that are either more market-oriented or state-driven.

This work proceeds by first comparing the frames used by RN with those proposed here—energy as a marketable, common, or political good—to study the political economy of energy in Latin America. Detailed examples from two countries, Argentina and Brazil, help to illustrate in detail the proposed frame. The chapter concludes with recommendations for future research on this subject.

The Baseline for Resource Nationalism

Resource nationalism is usually defined as the effort by resource-rich nations to shift political and economic control of their energy and mining sectors from foreign and private interests to domestic and state-controlled companies.[4] This approach treats natural resources, such as energy or mineral commodities, as part of a country's "national patrimony," which is to be used for the benefit of national development.[5] However, "development" is often left under-specified in these definitions, which either describe it as the provision of common goods for the general public or, more frequently, as substantial benefits for specific constituencies.[6]

Instead, the focus of RN remains natural resources policy, with energy policy at its crucial centre, and operates with an implicit understanding of what the government's role should be as a regulator of economic activities, which, in turn, are to be chiefly driven by market forces.[7] RN assesses the extent of government intervention in an industry that is a priori considered to be run globally and for the most part by market forces and private firms. For example, a government is judged on how it regulates the extraction, processing, and, if a national market exists, the distribution of natural resources such as energy goods by either completely or partially setting prices, quantities, or timing for these activities.[8] In other words, energy policies viewed through a standard RN lens are seen as exercises in regulation that ought to have as goals the expansion of the industry and the prosperity of the private firms operating in it.[9] The implicit notion is therefore that minimal regulation would result in the optimal performance of market forces.

Current understandings of RN recognize the finite quality of natural resources such as oil and gas, and therefore accept that governments obtain compensatory rents from energy goods—for example, by setting up rates for royalties and other specific taxes or levies applied to the sector.[10] In the RN context, this is perhaps the single most important way of assessing the quality of energy policies. It confirms the analytical bias toward the "natural role" states and markets should occupy vis-à-vis one another, meaning that governments should not seek to appropriate a bigger share than private investors, or more generally, what market forces consider acceptable profit margins.[11] Given this tendency, there is unsurprisingly

Table 1.1 A Theoretical Scheme for Resource Nationalism

Energy Policy	**Market-Driven** ←==========→ **State-Driven**			
Ownership	Private	Private w/ restrictions	State w/private partners	State monopoly
Taxation and rents	As low as needed to bring in local or foreign investment		As high as possible to maximize current rents	
Operational mode	Privately owned concessions	Production-sharing deals	Operational contracts	State company as sole operator
Prices and subsidies	Supply/ demand driven	Monopoly moderating regulations	Prices with producer-paid subsidies for local economy	
Solutions to market failures	Publicly or privately funded?		Government funded	
State energy company	None	Yes, but with profit-oriented management	Yes, with private participation	Sole operator

no mention of state-provided promotional regulations such as tax exemptions or holidays to import needed capital goods or to recover exploration expenses often given to the energy industry. The same applies to the credit guarantees governments provide for energy companies to build the necessary infrastructure projects for their exports, such as pipelines and seaport terminals.

Given the genealogy of RN, which originated from the literature on bargaining between multinational firms and states of the 1970s[12] and '80s,[13] it is not surprising that many of its current formulations still follow a one-dimensional line stretching from minimum to maximum regulation of market forces in the energy industry. This thinking is applied to its many specific dimensions, such as operations, actors, prices, and tax regimes. RN is not, however, a theory for understanding the role of energy policy in wider national development strategies, whether formulated explicitly or implicitly, by state actors. For that perspective, one must necessarily start from the development strategies being applied to a national economy and deduce from that standpoint what the role assigned to the energy sector is. The result would be a development-centred

understanding of energy policies and not an energy policy–centred assessment of development strategies.

The following two examples can clearly illustrate this problem as it relates to the use of the standard RN analytical prism. Firstly, if energy policy is analyzed in a political or historical vacuum resulting from the under-specification of the larger development priorities of the country in question, no clear insight into the sources of those policies can be obtained except by locating them outside the country—for example, in higher international commodity prices—or from long-standing (ex-temporal) characteristics such as weak institutional development. This is problematic, as countries react differently to similar external stimuli and government institutions can only be assessed accurately by observing more than one policy case across different industries.

A more plausible explanation for the need of RN to resort to external or institutional factors is that the implicit logic of the theory as it relates to the roles of states and markets is overly normative, and decisions (regarding economic policies, including energy policies) tend not to be the result of their political circumstances. In other words, RN-based analysis might consider markets as central to economic activity, but decision-makers in developing regions such as Latin America might envision markets as just one of several means to advance their respective nation's economic development, which is their larger (and perhaps only real) goal.

Secondly, RN consequently lacks the capacity to deduce what is likely to happen with energy policy in the countries studied. Since RN considers decision-making in other aspects of public policy as exogenous to energy policy-making, policy changes in other sectors, such as agriculture, industry, or even trade and financial policies, are supposedly irrelevant. Even more implausibly, macroeconomic policy choices, such as those related to fiscal or monetary policy, are also considered analytically exogenous or, in the case of oil-driven export economies, a function of energy policy. Therefore, when changes in energy policy happen, they are always, and almost by definition in the framework of RN, a surprise. In fact, such breaks are interpreted that way because there is an unfortunate blindness to what energy policy means in the greater context of all other sectoral and national macroeconomic policies. In other words, there is a lack of insight

regarding what energy policies mean for the development strategies of the countries in question.

Energy Policy in Economic Development: A Market, Common, or Political Good?

In the previous section, I identified three spaces for improvement in the RN literature: the under-specification of the developmental goals of energy-rich countries, the dependence on an implicit notion of what roles states and markets should have in this industry, and an excessive focus on the progress of the energy sector to the exclusion of wider, national understandings of national economies in developing countries. In order to advance the theory of RN, as applied to energy policy, this chapter proposes an alternative framework that explicitly includes wider economic development concerns, as articulated by each country, and that incorporates market-state relations in a non-normative manner.

Developing countries, such as those in Latin America, have engaged in a succession of economic policy experiments in order to advance their development, framed as higher per capita income levels. From the original post-colonial consensus in the nineteenth and early twentieth centuries regarding economic liberalism and laissez-faire regulation of markets, trade, and investment, the mid-twentieth century saw a series of experiments in import substitution industrialization.[14] That process, which in the 1930s was originally confined to the larger and more economically diversified countries, such as Brazil, Mexico, and Argentina, gradually extended to most of the region by the early 1960s. Once the debt crisis began in the 1980s, an extended process of economic deregulation and liberalization began, expanding rapidly in the 1990s and stalling again in the mid-2000s in most countries, while it was partially reversed in others.[15]

Consistently throughout the decades, blueprints for economic development have been applied across sectors either in form (e.g., enforcing import substitution, enforcing liberalization, enforcing reregulation, etc.) or, most importantly, in order to complement or support larger goals established for national development.[16] For example, export agriculture was heavily taxed in Argentina and Brazil during the import substitution period because these states wanted to extract profits from agricultural

exporters to invest in industrialization projects, not because there was a general tendency to tax all economic activities more than before. There was no other reason for such bias against export agriculture except a utilitarian one, even though arguments against large landowners were used to legitimize such policies.[17]

The same type of bias was later applied to industry in the 1990s across much of South America and in Mexico when neoliberal policies of trade liberalization, deregulation, and currency overvaluation were used to bring in foreign direct investment and short-term financial capital flows to restart economic growth. There was "nothing personal" against industry (and its margins of protection) except that it stood in the way of a pragmatic expectation that foreign private capital could rescue Latin American economies from the 1980s doldrums of debt and recessions.[18] In fact, deregulation and liberalization were quite unevenly applied depending on how much they supported that larger goal, in spite of the apparently overarching discourse on the merits of minimal state involvement.[19]

Therefore, it seems more appropriate to look at sectoral policies such as energy programs initiated by governments from the point of view of what they want to get from the sector and where they place it in their real hierarchy of goals implicit in their own views for economic development. A good a priori indicator of whether a sectoral policy is in fact central or rather more subsidiary to that overarching development vision could be the actual relative size of the sector in the national economy, as well as its short to mid-term potential for growth (relative to that of other sectors) that could contribute to the country's overall wealth. For example, the energy policy of Uruguay or Chile is more likely to be a function of the policies already being applied to the more relevant sectors of those economies, such as agriculture in the first case and mining in the second. It is quite different in other countries with great energy resources, such as Bolivia or Venezuela, where, logically, energy policies would be of fundamental importance to whatever is possible to do in any other sector, such as industry or agriculture.

Ideological discourses are traditionally given great importance in studies on energy policies in Latin America. Intrinsic characteristics of the sector, such as high optimal firm concentration, its attractiveness to multinational capital, the possibility of extraordinary profits, and

apparent possibilities for backward and forward linkages supporting industrialization, all seem to invite tinkering in search of great political and economic payoffs. Moreover, standard formulations of the RN literature give central importance to this aspect of ideology, referred to as *developmentalism*, often to the exclusion of other more practical preoccupations that policy-makers also have in regards to the rest of a national economy, such as competitiveness and growth.

Another significant linkage between ideology and the place that energy policy might have in overall development plans is the urgency attached to policies of social welfare and income distribution. In energy-exporting nations, where extraordinary profits can be obtained from the production and sale of this good to international markets given the enormous difference between production costs and global prices in recent years, the application of this surplus to deal with social and economic inequality is obvious. The ideological mediation takes place not only in terms of how those profits are extracted, as a sector-centric RN analysis would do, but in the estimation of the social issues that are going to be addressed. In other words, it is in the ideological (used as a neutral term) assessment of social and economic inequality that ideology primarily matters, and this will determine the size of the surplus extracted from the energy sector.

As such, energy policy can then be "essentialized" in terms of policies regarding that type of good in an economy. The categorization proposed here is structured into three parts, articulated along a continuum that deems energy policy subsidiary to wider developmental goals and cognizant of the relative importance of the sector in the overall economy. We can take, then, energy as a marketable good, where energy is seen as any other market-produced and -traded good; energy as a common good, where energy is observed as a distinct type of good whose production and commercialization needs to be regulated for the maximization of the common good; and energy as a political good, where energy is taken as the basis for the construction of an alternative polity and society to the one currently in existence. The following paragraphs describe each category in further detail; in a subsequent section, I illustrate each with current examples.

Policies for Energy as a Market Good

When governments take energy as a market good (hereafter EMG), they regulate its production and commercialization as they would any other good or service in that economy. For most recent and current Latin American governments, this denotes a market-supportive approach to regulation that can nonetheless account for the non-renewable nature of oil and gas—for example, by levying specific taxes or royalties on extractive firms.

The character of regulation in EMG is, however, promotional in the sense that it fosters the arrival of foreign direct investment, as well as local investors in all aspects of the energy business, from exploration, production, refining, and distribution to commercialization. This perspective on energy is grounded in the notion that demand will be met by supply, which will bring the optimal social and economic result for the country, regardless of the process and actors involved in production. Taxation and energy prices in EMG are again set according to the levels that will secure as much (private) investment in the sector as possible, which, for example, precludes using below-market prices as subsidies for other industries.

Public investments are often needed in this industry, however, as there are areas of partial or total market failure, including in production research, geological prospection, storage, pipelines across borders, docks, inspections to maintain security and environmental standards, just as there are in other industries. In the most common EMG approach, state participation in these aspects is kept at the lowest level possible, deferring to private initiatives, self-regulation, and private credit procurement. In the strictest EMG versions, state involvement tends to be limited to providing state guarantees for private loans and diplomatic support to open new markets for exports or securing stable sources for imports. The net result of maintaining that preference for assigning the driving seat to market forces in the form of private firms, while keeping practices of state promotion for the sector, amounts to a subsidy to the sector that is paid for by the rest of the economy, either through higher prices or taxes or a combination of both.

Table 1.2 Sample Characteristics of Energy as a Market Good

Aspects of Energy Policy	General Characteristics
Ownership	Mostly or fully private, with a state importer for price stabilization purposes
Regulation	Self-regulation, minimum state involvement in safety, environment, financial, or labour practices
Taxation and rents	Optimized to maximize and promote investment in the sector, royalties set considering non-renewable character of reserves
Operational mode	Foreign or privately owned operators, generous exploration rights, marginal or legacy state operator
Market failures	State subsidies for exploration, loan guarantees for extraction and export/import infrastructure, consumer-subsidized distribution investments

Energy as a Common Good

In contrast to the above, governments that take energy as a common good (ECG) focus most closely on the national character of the assets and the actual production process involved in making those energy goods available to the rest of the national economy. In that sense, energy is conceptualized as a qualitatively different type of good than others, and thus merits a specific regulatory framework. The regulatory framework will contain market elements, as in other production sectors, but will also have specific regulations that will overwhelmingly reflect the public-patrimony character of energy as an input for the rest of the economy and a demander of goods and services from the rest of the economy.[20] As in EMG, the non-renewable aspect of energy goods is also considered in taxation, but here it is subordinated to the needs of the economy in its current state, and not set by investment-promotional parameters or income-smoothing notions.

The character of regulation in ECG is therefore subsidiary to the needs of the rest of the economy, with the main balance point allocated between demanders of energy goods, such as industry and consumers, and providers of inputs for the local production and distribution of energy goods, such as specialized oil and gas engineering companies, and manufacturers

Table 1.3 Sample Characteristics of Energy as a Common Good

Aspects of Energy Policy	General Characteristics
Ownership	Can be partially private, but with a dominant state company to set sector policies. Can also be a state monopoly.
Regulation and prices	Comprehensive in all operational aspects to enhance or maximize local transfer and use of technologies, services, and labour. Active control of financial flows and subsidized prices.
Taxation and rents	Slightly favourable or neutral measures to attract investment in operations, exploration, or both. High royalties and special taxes.
Operational mode	Foreign or privately owned operators allowed, best areas given to state operator. Joint ventures with local private or state firms are common.
Market failures	State subsidies for exploration, state-directed distribution, and production investments.

of other specialized goods needed for this sector (pipelines, drills, ships, storage facilities, etc.). A fundamental aspect to facilitate this process is the ownership of the firm or firms in charge of the production of energy. If it were of state or domestic capital, problems in administering the special status of the sector in ECG are substantially reduced, since incentives can be easily aligned among the bureaucracies running the energy firms, with the government running the sectoral policy and its political masters being accountable for its results.

The public to which this last group is accountable is the electorate, the members of which are also the recipients of either energy subsidies in terms of below-global-levels domestic prices and/or energy sourcing or provisioning to areas of the country that market forces (i.e., private energy firms) would not otherwise exploit or provide. Besides these wider constituencies, there are specific ones for ECG, such as intensive users of energy goods like metal smelters, and petrochemical plants typical of countries with intermediate levels of industrialization, as well as domestic firms that specialize in the provision of energy industry goods and services.

Therefore, the elements one can encounter in ECG are those already present as sector-specific subsidies in EMG plus a framework that holds firms accountable for how they invest in terms of domestic versus foreign-sourced inputs, where they invest, how much they allocate to exploration, extraction, and commercialization, and the prices they charge for their final output. Given the relevance of other sectors of the economy in energy policy-making, domestic price subsidies in ECG might easily mean export controls or prohibitions to make the former possible.

The crucial distinction here between ECG and the previous EMG is the subsidiary character of the energy sector to the rest of the national economy in the former versus the latter. That subordinated conceptualization of energy to the greater whole, identified here as the "common good," is what paves the way for systematic regulation in ECG in favour of the interests of other groups over those of the energy industry itself. One must note, however, that the apparently intermediate approach of EMG often covers up economy-wide subsidies for the energy industry through state guarantees or direct financing of sector-specific inputs and facilities.

Energy as a Political Good

While EMG and ECG entail an implicit acceptance of the wider political status quo in terms of government regime, national institutional framework, and the overall relationship between state and markets, governments undertaking uses of energy as a political good (EPG) employ energy policy as the driver to alter all of the above through the strategic use of the sector's surplus, contracts, prices, and pace of production. Furthermore, EPG has fundamental foreign policy implications because of the need to secure a safety perimeter within which the revolutionary domestic changes can happen.

In order to achieve their domestic and foreign policy goals, governments undertaking EPG would therefore seek to maximize operational control to make the clearest statement of resource ownership, at least on a symbolic level. From that point of departure, EPG would prefer contracts in which private local or foreign investors are exclusively operators paid an extraction fee, or paid through share contracts, then taxed as much as possible. That revenue flow from either royalties or taxes—or most likely a

Table 1.4 Sample Characteristics of Energy as a Political Good

Aspects of Energy Policy	General Characteristics
Ownership	State monopoly. Private operators might be allowed in joint ventures.
Regulation and prices	Extensive in operational aspects to maintain control of private operators and, especially, of the state enterprise itself. Most attention given to the control of financial flows and maximization of subsidized prices.
Taxation and rents	Highest possible royalties and special taxes, even if they diminish investments.
Operational mode	Foreign or privately owned operators allowed, with best areas given to state operator. Joint ventures with local private or state firms.
Market failures	State-directed exploration, production, and distribution investments.

combination of both—seeks to maximize the flow of funds to the state to finance the goal of social and economic change. Beyond the flow of funds to the state, the largest and widest possible provision of energy subsidies is another cornerstone of EPG, as that creates another source of popular support for this model, especially from those who benefit less from social programs (i.e., the wealthy and the urban middle classes). These subsidies are by conception different than those sometimes present in ECG, which are designed to help industrial development and not necessarily to increase popular support. Moreover, in contrast to ECG, there is little consideration of directly linking energy sector policies with the development of the local economy through industrial linkages and contracts.[21]

While both types of governments—those that undertake ECG (energy as a common good) and those that undertake EPG (energy as a political good)—intervene heavily in the sector, their aims, and therefore direction, are very different. While ECG seeks a medium- to long-term goal in the type of economy a country has via industrial upgrading and technology transfer, EPG leverages its energy sector in order to change social and economic relations in its domestic society in the short term via state investments in social policy, nationalizations, and consumer subsidies.

Energy as a Market, Common, or Political Good in Latin America

Adapting this analytical framework to improve upon the visions of RN in Latin America requires acceptance that reality across the region is indeed very complex, impeding neat characterizations for each country in one of these three categories. Table 1.5 attempts, however, to fit each country into one of these frames, understanding them as best if still insufficient descriptors of energy policies in each nation.

The following paragraphs provided a short description of the policies applied in each country in the 1990–2015 period to explain their location in this categorization.

Energy as a market good (EMG) was more popular in Latin America during the 1990s than it is today, as most of the region embarked on a series of neoliberal reforms that liberalized trade and investment and privatized state assets, including those of state energy firms. In the case of Argentina (described in detail below), the whole of the industry was privatized and the regulatory framework modified to maximize opportunities for investors vis-à-vis consumers and industry, while in other cases, such as Chile, Bolivia, and Peru, privatization was partial and a state energy company with regulatory capacity was preserved as a marginal producer.[22] Pricing was only controlled to avoid monopoly rents but subsidies were eliminated, while state-guaranteed loans were simultaneously provided to energy producers and distributors to improve infrastructure for import (Chile) and even for export (Bolivia, Peru, and Argentina).[23] Colombia, a late entrant into EMG, reduced taxes and royalties for the sector in the early 2000s in an attempt to bring in new investors and develop new production from existing reserves, while simultaneously partially privatizing its state energy firm and subsidizing the construction of export infrastructure such as pipelines and port terminals.[24]

Energy as a common good (ECG) has traditionally been the preferred mode for energy policies in Latin America since the mid-twentieth century. Those countries that managed to maintain such policies under the pressures of neoliberalism in the 1990s did so by mixing market forces and private investment into what had previously been a more rigidly controlled sector. Brazil (described in detail below), Venezuela, Ecuador, and

Table 1.5 Energy Policies in Selected Latin American Countries, 1990–2015

	1990	1995	2000	2005	2010	2015
Argentina	Market			Common		
Bolivia	Market				Political	
Brazil	Common					
Chile	Market					
Colombia	Common			Market		
Ecuador	Common				Political	
Mexico	Political				Common	
Peru	Market				Common	
Venezuela	Common			Political		

Colombia (up to the early 2000s) engaged private investors in exploration and distribution while seeking to keep production and refining in state hands.[25] That inclusion of private—mostly foreign—investors required, in turn, reductions in royalties and liberalization of the operational regulatory framework to allow foreign contracting of expertise and the import of new technologies. Ironically, as this flexibilization of ECG was bearing fruit, several of the adopting countries, such as Venezuela and Ecuador, changed their model altogether to one that privileges the maximization of rent over developmental spillovers.[26] In other cases, such as Brazil, the change has been more gradual, seeking to balance the former with the latter.[27]

Finally, energy as a political good (EPG) has been the ascendant tendency in the region, expanding from the original model in Mexico to Bolivia, Ecuador, and Venezuela since the early 2000s. Perhaps that trend has given impetus to the more simplistic interpretations of resource nationalism. Nonetheless, EPG has existed in Latin America since the 1930s—namely, in Mexico, where it assumed evolving forms that initially gave more emphasis to industrialization goals, only to later become an almost exclusive instrument to minimize taxation in the local economy, particularly on local capitalists.[28] The version appearing nowadays in the region, with the leading examples of Venezuela, Bolivia, and Ecuador, focuses instead on state ownership of all reserves and joint ventures between

state and foreign capital in extraction and refining. This model prioritizes current rent extraction above all else, be that industrialization spillovers or the search for future reserves.[29] In a sense, it is similar to EMG as it considers the energy sector exclusively from the perspective of the financial surplus it generates, without giving it any distinct value of its own. But in the praxis of EPG, the heavy-handed intervention of state actors, or the leading roles assigned to them over private investors, makes it more similar to ECG.

Illustrative Cases

The following two cases illustrate in more detail the different types of energy policies identified in this chapter. The first deals with Argentine economic policy from the 1990s to the present, as it changed from an EMG framework to one best characterized as ECG. In the second case, Brazil demonstrates the policy movements inside ECG, as it includes elements from a more market-oriented perspective along with another, more political approach. The goal of this section is to show that, beyond any typology, what matters when it comes to more accurately analyzing energy policies is their overall national political and economic context.

Argentina's Energy Path from Marketable to Common Good

Energy policy in Argentina has been part and parcel of that country's overall policy changes since the 1990s. After more than half a century of import substitution industrialization, the Carlos Menem administration, which came into office in 1989, embarked on a series of radical pro-market reforms that comprehensively deregulated and liberalized the economy, and it brought in massive amounts of foreign direct investment (FDI). To this end, a monetary policy that effectively tied the Argentine peso at an overvalued rate to the US dollar was used to eliminate high inflation and overvalued state assets were sold in order to reduce government debt. By the end of the 1990s, Argentina, which now ranked as one of the most deregulated economies in the western hemisphere, had signed multiple free trade agreements and reduced import barriers to attract over US$80 billion in FDI, mostly through the sale of state companies.

In terms of energy policy, this turn to neoliberal policies resulted in the sale between 1990 and 1994 of almost all state properties, including the national oil company, Yacimientos Petrolíferos Fiscales (YPF), the national gas company (Gas del Estado), all regional gas distribution networks, and the totality of the pipeline network, as well as associated facilities in seaports.[30] In all, more than US$40 billion was collected by the Argentine government, mostly from European (above all, Spanish) and US investors. Simultaneous with this privatization drive, regulatory changes along the lines of those described above as EMG were made to enforce market mechanisms in the setting of rates among producers, transporters, and distributors of energy goods, and prices were set by government in terms that would be most likely to bring in further investment. In fact, Argentina went from having subsidized energy prices for consumers and industries in the 1980s to having some of the most expensive energy rates in the Americas, adjusted by US (and not Argentine) inflation, and explicitly dollarized.[31]

The combination of ample reserves, excellent energy transportation infrastructure, and a consumer-subsidizing home market allowed the new owners of Argentine energy assets to embark on extensive plans to export surplus gas and oil to neighbouring countries, especially to Chile. The Argentine government facilitated the signing of an energy treaty with its neighbour and provided the credit guarantees to build seven pipelines that by the end of the decade were exporting billions of dollars in gas.[32]

At the end of the 1998–2002 economic crisis, the new government of Eduardo Duhalde froze and "pesofied" energy rates to shield consumers and local industry from the costs of the devaluation made in 2002. This measure passed on to the energy sector the cost of shielding the home market from international energy prices in the context of an unprecedented economic depression. Given the fiscal deficit at the time, Duhalde also imposed a 10 per cent export tariff on all commodities, which targeted mostly agricultural goods such as soybeans, but also affected oil and gas exports.

In 2003, the newly elected administration of Néstor Kirchner reaffirmed that change in policy and started building up a regulatory framework to maintain it over the long term. To further entrap and redirect the private-owned energy sector along his preferred policy lines, the Kirchner administration capped the price oil and fuel exporters could receive for

their foreign sales at a fraction of international prices, reducing their incentives to sell abroad instead of on the low-priced domestic market, and for gas exporters, it directly banned exports until producers could guarantee total provisioning of the local market.[33]

The electricity market, the main consumer of gas, was reorganized with a clearing centre that provided subsidies to distributors, transporters, and producers according to their operational costs and not international prices, along the lines of a clear ECG framework. Any profits were to be reinvested in "energy bonds," which were to be used by the government to construct more electricity-generation plants to keep up with the explosive growth of consumption, itself a by-product of economic recovery and subsidized consumer and industrial rates. The ECG framework also applied here as the government basically appropriated any profits from the private sector and then assigned them to firms chosen to construct new power plants. A nuclear power plant, a huge hydroelectric dam (Yacyretá), and a series of gas-powered plants were thus finished in the first decade of the 2000s. In all cases, Argentine engineering and construction firms were assigned the most important contracts, in clear contrast to the power-generation plants built in the 1990s by foreign investors, who usually brought firms from their own countries.

This ECG strategy of imprisoning foreign investors from the previous EMG stage suffered from a significant weakness. YPF, the main oil and gas producer, now in the hands of Spain's Repsol, could not be legally forced to increase exploration to maintain or increase production levels. Other smaller producers followed suit, speculating that the government would have to accept price increases in order to bring its investment strike to an end. However, the Néstor Kirchner and Cristina Fernández administrations preferred to create a state entity, ENARSA, which since 2007 has imported sizeable quantities of gas and other fuels needed to feed the ever-growing demand for energy in the local economy.[34] By 2010, the government had locked itself into its combination of growth-accelerating policies such as energy subsidies to create an environment of accelerating inflation. In that context, subsidies could not be undone without a further acceleration of expected inflation, which in turn weakened more fiscal accounts and made the import of energy to maintain the scheme more expensive.

Just as the tug-of-war between energy producers and the government seemed to be moving in favour of the former, the Fernández government took ECG to a different level, expropriating control of YPF from Repsol in 2012 and bringing in a new set of foreign investors from China and Chevron in the United States to develop shale gas and oil reserves recently discovered (but not exploited) by YPF. The newly nationalized firm would allocate all profits to reinvestment to bring energy production up to self-sufficiency, while embarking on systematic policies of import substitution of inputs and services for the energy industry. Meanwhile, the government continues to subsidize consumer and industrial rates and to import energy goods to cover the deficit to the tune of US$10 billion in 2014.[35]

Brazil's Experimentation with Energy as a Common Good

Energy production and distribution in Brazil have long been considered matters of national security. Since its founding in the 1950s until the 1970s, Petrobras, or Petróleo Brasileiro, was led by generals from the armed forces, and its strategy for development was closely aligned with national defence and territorial control.[36] The procurement of energy inputs for the economy was seen as an issue of national security, articulated by plans to purchase imported energy goods from diversified but diplomatically allied sources such as the United States and Middle Eastern and North African countries.[37] The surplus obtained from the sale of this imported energy in the domestic market was then reinvested in highly ambitious and systematic exploration schemes in the Amazon and on the Atlantic coast, targets also chosen for national security considerations. Such efforts met success starting in the 1970s, when the Campos fields close to Rio de Janeiro started to bring in significant production.[38]

Until the late 1980s, major emphasis along the lines of ECG was put into developing local providers for the energy industry, and into a downstream industrial complex to process imported and locally produced outputs in refineries and petrochemical plants. In order to create a geographically diversified development matrix, hydroelectric dams were built across the country, from the Northeast to the Amazon, an effort undertaken in coordination with Paraguay in order to expand Brazil's area of

diplomatic influence in the Southern Cone. Energy policy thus took on a tripartite goal of promoting local industrial linkages, seeking autonomy from international markets, and developing regional assertiveness, as was the case with other areas of public policy, such as general industrial development and the territorial expansion of export agriculture.

During the 1990s, as a wave of neoliberal perspectives on development gained greater currency in Brazil, the Fernando Collor, Itamar Franco, and Fernando Cardoso administrations proceeded to partially undo this ECG model by privatizing most of the electricity-generating plants and urban distribution networks. Given the massive protests against this policy, Petrobras was exempted and only two-thirds of its shares turned over to the market, while the government kept more than 50 per cent of voting rights.[39] Further deregulation facilitated the entry into the market of private firms, including foreign ones, in exploration, production, and commercialization of both oil and electricity. Meanwhile, gas-powered generation was included in the energy mix with imported gas from Bolivia, a process spearheaded by Petrobras and taking as an example the similar venture undertaken with Paraguay in the 1970s with the Itaipu Dam.

In terms of regulation, the Cardoso administration moved slowly but decisively to bring market forces, foreign investors, and market prices into energy policy-making, just as it was simultaneously doing the same with other parts of the economy, such as telecommunications, infrastructure, and other natural resource industries such as mining.[40] A separate set of regulatory agencies, independent from the federal government, were set up to regulate electricity markets and the allocation of exploration rights, which effectively created firewalls to protect energy policy from political pressures in the allocation of contracts and the setting of consumer or industrial prices.[41] The results of this opening were a very significant flow of FDI and Brazilian private investment in the energy sector, either through the purchase of privatized facilities or the acquisition of stocks and bonds from the partially privatized Petrobras.

With the arrival of the Lula Da Silva administration in 2003, Brazil moved the pendulum back toward a more conventional ECG plan that added successive layers of local content clauses to new auctions for exploration blocks for oil and gas, and set demands for local contracting in the construction of new hydroelectric dams and power plants. The

independent regulatory agencies originally established by the Cardoso administration were gradually starved of funds and policy capacity, while the Brazilian executive, especially the Office of the Chief of the Civil Service, has taken control of energy policy, including rates charged to consumers, industry, and energy wholesalers or distributors. Together with the Ministry of Mines and Energy (MME), this office has reasserted regulatory control over the energy sector, particularly after it came under the leadership of Dilma Rousseff, who had previously served as minister in charge of the MME.[42]

In addition to centralization and an increased emphasis on realigning the provision of energy with the market needs of Brazilian domestic industry and construction companies, the Da Silva administration ordered the Brazilian National Bank for Economic and Social Development to take the lead when it comes to financing energy and infrastructure projects.[43] This decision has made this institution central to the development of energy policy, once again strengthening government control over markets in regards to strategy and investment allocation.[44]

Once sizeable new oil and gas reserves were discovered by Petrobras in the Santos Basin (Tupi fields) in 2007, the government's position on energy changed again, still further in the direction of ECG. These new resources, which analysts estimate are four times bigger than pre-existing national reserves, will be regulated by another entirely new framework that gives central control to Petrobras and relegates foreign firms to the position of production operators.[45] Significantly, this scheme allows for the participation of a new set of entrants, state-owned firms from China, with which several years' worth of export agreements have already been pre-arranged. The sum total of these changes moves energy policy in Brazil, at least as it relates to oil and gas, to where it was before the big changes of the 1990s, except that now, privileged foreign partners are other state-owned firms instead of private Western multinationals.

Conclusions and Further Research Directions

This chapter has undertaken a critical revision of the commonly used framework of resource nationalism, as applied to contemporary Latin America, and suggested two crucial aspects for improving its analysis of

energy policies in the region: the inclusion of wider national development goals in the construction of energy policies, and exclusion of the normative understanding of the roles that states and markets ought to play in this industry. This results in a more realistic understanding of the role and characteristics of energy policies in Latin America's long economic development path, and a better theory in terms of its predictive power to assess when and how countries would change their policies in regards to this crucial industry.

In order to guide these theoretical changes, the proposed framework characterized energy policies in Latin America according to how, in general terms, they view energy as an actual good—in this case, either as a market, common, or political good. If taken as a market good (EMG), energy policies are to support the interaction of supply-and-demand market forces, just as they would do in other industrial sectors, with the state in a supportive role for suppliers or producers. However, if energy is taken as a distinct and common good (ECG), energy policies instead take the role of supporting affordable access and the development of industrial and service linkages with the rest of the economy, effectively subordinating the energy sector to the wider goals set by states for their national economies. And if energy is taken as a political good (EPG), then energy policies seek the expansion of government rents to either finance the state, instead of other tax income, or to provide additional state funding to overhaul social and economic relations in the whole country. In other words, such policies aim to leverage energy resources in order to undertake a social reform or revolution.

While this chapter provides comprehensive examples from most South American countries and Mexico, not all of Latin America is represented here. Most of the countries not mentioned—such as those in Central America, or Uruguay and Paraguay—are exclusively importers of energy and, as such, have fewer alternatives when it comes to developing energy policies. Nonetheless, this characterization of energy policies inside wider national development frameworks would benefit from the inclusion of other Latin American cases, as well as from much more detailed analysis of the nations mentioned.

Additionally, this work has only addressed the oil and gas part of energy policies; it has included neither electricity generation nor new,

alternative sources being developed in the region, such as biofuels, solar, or wind. Given the technical and policy differences between oil and gas, on the one side, and alternative energy sources, on the other, the theoretical comparative framework used here would definitely gain in both precision and relevance once these other aspects are included.

In conclusion, the current diversity of experiences regarding energy policy in Latin America provides a panoramic view of how energy policies are being used in the different visions of economic development. A perspective that incorporates that wider view and sidelines normative concerns over the roles played by states and markets in the energy sector will facilitate our comprehension of the meanings of energy policy in the region.

NOTES

1 David Mares, *Resource Nationalism and Energy Security in Latin America* (Houston: Baker Institute for Public Policy, Rice University, 2010); Rubén Berríos, Andrae Marak, and Scott Morgenstern, "Explaining Hydrocarbon Nationalization in Latin America," *Review of International Political Economy* 18, no. 5 (2010): 673–97; Eric Farnsworth, *Energy Security Opportunities in Latin America and the Caribbean* (Washington, DC: Council of the Americas, 2013).

2 Eleodoro Mayorga-Alba, "Revisiting Energy Policies in Latin America and Africa: A Redefinition of the Private and Public Sector Roles," *Energy Policy* 20, no. 10 (1992): 995–1004; Sidney Weintraub, ed., *Energy Cooperation in the Western Hemisphere: Benefits and Impediments* (Washington, DC: Center for Strategic and International Studies, 2007).

3 Anthony Bebbington and Jeffrey Bury, eds., *Subterranean Struggles: New Dynamics of Mining, Oil, and Gas in Latin America* (Austin: University of Texas Press, 2013): Francisco J. Monaldi, *Is Resource Nationalism Fading in Latin America? The Case of the Oil Industry* (Houston: Baker Institute for Public Policy, Rice University 2014); Joaquín Melgarejo Moreno, Mª Immaculada López Ortiz, and Borja Montaño Sanz, "From Privatisation to Nationalisation: Repsol-YPF, 1999–2012," *Utilities Policy* 26 (2013): 45–55.

4 Ian Bremmer and Robert Johnston, "The Rise and Fall of Resource Nationalism," *Survival: Global Politics and Strategy* 51, no. 2 (2009): 149–58.

5 Paul Stevens and Evelyn Dietsche, "Resource Curse: An Analysis of Causes, Experiences and Possible Ways Forward," *Energy Policy* 36, no. 1 (2008): 56–65.

6 Mares, *Resource Nationalism and Energy Security in Latin America*; Paul Stevens, "National Oil Companies and International Oil Companies in the Middle East: Under

the Shadow of Government and the Resource Nationalism Cycle," *Journal of World Energy Law and Business* 1, no. 1 (2008): 5–30.

7 Halina Ward, *Resource Nationalism and Sustainable Development: A Primer and Key Issues* (working paper, International Institute for Environment and Development, London, 2009); Jeffrey Wilson, "Understanding Resource Nationalism: Economic Dynamics and Political Institutions," *Contemporary Politics* 21, no. 4 (2015): 399–416.

8 Richard Tissot, *Latin America's Energy Future* (Discussion Paper IDB-DP-252, Inter-American Development Bank, Washington, DC, 2012).

9 Weintraub, *Energy Cooperation in the Western Hemisphere*.

10 Monaldi, *Is Resource Nationalism Fading in Latin America?*

11 Stevens, "National Oil Companies and International Oil Companies in the Middle East."

12 Raymond Vernon, *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises* (New York: Basic Books, 1971); Stephen Kobrin, "Foreign Enterprise and Forced Divestment in LDCs," *International Organization* 34, no. 1 (1980): 65–88.

13 Theodore Moran, *Multinational Corporations: The Political Economy of Foreign Direct Investment* (New York: Lexington Books, 1985); Paul Evans, *Dependent Development: The Alliance of Multinational, State, and Local Capital in Brazil* (Princeton, NJ: Princeton University Press, 1979).

14 Victor Bulmer-Thomas, *The Economic History of Latin America since Independence*, 3rd ed. (New York: Cambridge University Press, 2014).

15 Patrice Franko, *The Puzzle of Latin American Economic Development* (Lanham, MD: Rowman & Littlefield, 2007).

16 Rosemary Thorp, *Progress, Poverty and Exclusion: An Economic History of Latin America* (Washington, DC: Inter-American Development Bank, 1998).

17 John Coatsworth, "Structures, Endowments, and Institutions in the Economic History of Latin America," *Latin American Research Review* 40, no. 3 (2005): 126–44.

18 Kurt Weyland, "Neopopulism and Neoliberalism in Latin America: Unexpected Affinities," *Studies in Comparative International Development* 31, no. 3 (1996): 3–31.

19 Eduardo Lora, *Structural Reforms in Latin America: What Has Been Reformed and How to Measure It* (Working Paper No. 466, Inter-American Development Bank, Washington, DC, 2001).

20 A similar argument is made in Christopher Simon, "Is Energy a Public Good?," *Renewable Energy World*, 2 July 2007, http://www.renewableenergyworld.com/articles/2007/07/is-energy-a-public-good-49201.html.

21 Discourses along those lines do exist in certain EPG cases, such as Bolivia and Ecuador, but the policies implemented by those countries have not yet resulted in any significant development of energy-related clusters. In other countries with EPG, such as Venezuela and Mexico, the emphasis on revenue maximization has actually reduced the clusters that did exist before, as state companies drastically lowered their purchases and investments. For examples of these policies, see David Mares, *Oil Policy Reform in*

Resource Nationalist States: Lessons from Mexico (Houston: Baker Institute for Public Policy, Rice University, 2011).

22 Lora, *Structural Reforms in Latin America*.

23 Fabio García and Pablo Garcés, *La industrialización del petróleo en América Latina y el Caribe* (Quito: Organización Latinoamericana de Energía, 2013).

24 Robin Sickles et al., *Convergence, Regulatory Distortions, Deregulatory Dynamics and Growth Experiences of the Latin American and Brazilian Economies* (Houston: Baker Institute for Public Policy, Rice University, 2004).

25 Ariela Ruiz Caro, *La seguridad energética de América Latina y el Caribe en el contexto mundial* (Santiago: CEPAL, 2007).

26 Tissot, *Latin America's Energy Future*.

27 María José Paz Antolín and Juan Manuel Ramírez Cendrero, "How Important Are National Companies for Oil and Gas Sector Performance? Lessons from the Bolivia and Brazil Case Studies," *Energy Policy*, no. 61 (2013): 707–16.

28 Isidro Morales, *The Twilight of Mexico's State Oil Monopolism: Policy, Economic, and Political Trends in Mexico's Natural Gas Industry* (Houston: Baker Institute for Public Policy, Rice University, 2013).

29 Bianca Sarbu, *Ownership and Control of Oil: Explaining Policy Choices across Producing Countries* (London: Routledge, 2014).

30 Roberto Kozulj, *The Quest for Energy Security in Argentina* (Winnipeg: International Institute for Sustainable Development, 2010).

31 James Haselip and Clive Potter, "Post-neoliberal Electricity Market 'Re-reforms' in Argentina: Diverging from Market Prescriptions?," *Energy Policy* 38, no. 2 (2010): 1168–76.

32 David Mares, "Sector energético latinoamericano: Integración a todo gas," *Contrapunto* (Mexico City) (April–June 2006): 90–6.

33 David Mares, *The Geopolitics of Natural Gas: Political Economy of Shale Gas in Argentina* (Houston: Baker Institute for Public Policy, Rice University, 2013).

34 Melgarejo Moreno, López Ortiz, and Montaño Sanz, "From Privatisation to Nationalisation," 45–55.

35 Gabriel Di Bella et al., *Energy Subsidies in Latin America and the Caribbean: Stocktaking and Policy Challenges* (IMF Working Paper WP/15/30, International Monetary Fund, Washington DC, 2015).

36 Alberto Cisneros-Lavaller, "Latin American Geopolitics vs. Energy Patterns: Ideology, Energy Production Sustainability, and U.S. Security," *Journal of Energy and Development* 32, no. 1 (2007): 23–44.

37 José Paz, "Oil and Development in Brazil: Between an Extractive and an Industrialization Strategy," *Energy Policy*, no. 73 (2014): 501–11.

38 Adilson de Oliveira, *Energy Security in South America: The Role of Brazil* (Winnipeg: International Institute for Sustainable Development, 2010).

39 Chris Ellsworth and Eric Gibbs, *Brazil's Natural Gas Industry: Missed Opportunities on the Road to Liberalizing Markets* (Houston: Baker Institute for Public Policy, Rice University, 2004).

40 Hirdan Katarina de Medeiros Costa and Edmilson dos Santos, "Institutional Analysis and the 'Resource Curse' in Developing Countries," *Energy Policy*, no. 63 (2013): 788–95.

41 Jewellord Tolentino Nem Singh, "Towards Post-neoliberal Resource Politics? The International Political Economy of Oil and Copper in Brazil and Chile," *New Political Economy* 19, no. 3 (2014): 329–58.

42 Singh, "Towards Post-neoliberal Resource Politics?"

43 De Oliveira, *Energy Security in South America*.

44 Michael Zisuh Ngoasong, "How International Oil and Gas Companies Respond to Local Content Policies in Petroleum-Producing Developing Countries: A Narrative Enquiry," *Energy Policy*, no. 73 (2014): 471–9.

45 Luciana Braga and Alexandre S. Szklo, "The Recent Regulatory Changes in Brazilian Petroleum Exploration and Exploitation Activities," *Journal of World Energy Law and Business* 7, no. 2 (2014): 120–39.