Energy is political. It shapes nations and trade and fuels wars and blockades. Energy matters.

I was waiting for the ship to come in. In fact, so was everyone else in Nicaragua. Gas lines stretched around the block. The supermarket shelves were nearly bare. Lights went out again and again, plunging the country into frequent darkness. Telex machines couldn’t work, and we reporters had to depend on the few places with generators to file our stories (for younger readers, this was pre-computer and smart phones). U.S. President Ronald Reagan had imposed a trade blockade on Nicaragua in May 1985. The Soviets were sending oil, dodging the blockade.

We reporters did what we always do: we reported on the ship’s arrival. But we also breathed a collective sigh of relief. The arrival of the Soviet ship meant hot showers and light to read by.

You might not think of Latin America and the Caribbean right away as a big energy producer or consumer. But Venezuela stands ninth in global oil production with gas reserves almost triple those of Canada. Three countries—Venezuela, Brazil, and Mexico—account for about 90 percent of the region’s oil production. And Latin America and the Caribbean also have the capability to provide abundant alternative and renewable energy sources: wind, solar, geothermal and biomass, among others.

Perhaps because of my experience in Nicaragua, I started to conceive this issue in terms of meta-politics. And there is certainly a lot of politics related to energy in the region: the political upheaval of Brazil as a result of corruption scandals in the national oil company; the turmoil in oil-rich Venezuela; the impact of the semi-privatization of Mexico’s oil industry; the targeting of Colombia’s energy installations by guerrilla forces in a show of strength in the context of the ongoing peace process.

But then I thought back on how the arrival of oil had been experienced on a very local and personal level. I began to hear stories about the production of energy: what it felt like to grow sugar in Brazil; how local communities involve themselves in deciding what is done with oil. I was pleased to see how much overlap there was with the theme I had chosen for this wide-ranging topic. Energy is political. Energy is personal. Energy matters.

Energy is political. It shapes nations and trade and fuels wars and blockades. Energy matters.
Latin America’s Oil and Gas

After the Boom, a New Liberalization Cycle? BY FRANCISCO MONALDI

MEXICO HAS RECENTLY OPENED UP ITS OIL INDUSTRY, which had been under exclusive state control for the past 75 years, to private investment: a move that will very likely reconfigure the Latin American oil industry in the decades to come. Other Latin American governments of all political tendencies are now enthusiastically courting foreign investment in oil. This will all seem to proclaim a new liberalization cycle in the industry. Although this trend started before the oil price collapse, it has been strengthened by plunging prices. However, if history is any guide, resource nationalism is unlikely to go away.

Unquestionably, the most important new development in the region’s oil industry is the opening of the Mexican hydrocarbon sector to foreign investment.

Outside the region, Russia was the most notable exception, but many others could be found throughout the world. The governmental share of profits increased in most oil exporting countries. In fact, even Brazil—a model of long-term energy policy and resource nationalism—decided to nationalize their resources in this period. Mexico, until recently the largest oil producer in the region, maintained the oil industry as a state monopoly until 2013.

As recently as 2012, the Argentine government re-nationalized YPF, the formerly privatized national oil company, culminating a decade of eroding conditions for oil investors in the region. There were some exceptions. Brazil and Colombia, for instance, did not follow the same expropriation pattern. Still, Latin America was the leading example of a global phenomenon of increased state intervention and nationalization.

Undoubtedly, the most important new development in the region’s oil industry is the opening of the Mexican hydrocarbon sector to foreign investment.

Two years after completion of the nationalization process, initiated in 2005. During the last five years, PDVSA, the Venezuelan national oil company, has signed seven major extra-heavy oil joint-venture projects with foreign partners, including Chevron, CNPC, ENI, Repsol, and Rosneft. These projects would require more than US$100 billion in investment. When completed, they could yield more than 1.5 million barrels a day in production. PDVSA also pursued other smaller partnerships with foreign companies in conventional oil production, and a major offshore natural gas project with Repsol and ENI. In fact, despite the radical leftist discourse of the Venezuelan government, it has been actively courting foreign investors. In the last two years, the trend to liberalize the sector is unmistakable, with the government offering all sorts of sweeteners to make investment more attractive.

Land is a photographic project that aims to show maps of oil and its waste, revealing the historical evolution of the landscape, the political division of territory and our geopolitical identity. The images that make up the project were put together with maps taken from Google Earth and printed in large scale and high definition. They are satellite maps that reveal the topography of Argentine oil fields.

I am interested in seeing how utopias of modernity convert into a dystopian outcome. These maps seem to confront us with this otherness: social and economic distortion, environmental disaster, misplaced territorial boundaries and the uncertain future of our continent.

—Marcela Magno
vate sector to play a significant role in the exploitation of oil and gas resources. In the summer of 2015, the first exploration and production blocks were awarded to private operators.

Even Argentina, after it renationalized in 2012, quickly announced that it wanted to attract foreign investors to develop its recently discovered unconventional shale resources in the Vaca Muerta basin. The country signed a joint-venture agreement with Chevron to develop those sites and reached a settlement with Repsol, the expropriated shareholder of YPF. Argentina also has signed important new deals with foreign partners in natural gas exploitation. Meanwhile, Brazil, Colombia, and Peru, or more recently Mexico—have had either moderate left or center-right governments in power. However, to understand the dynamic of resource nationalism it is important to focus on the deeper determinants of the historical cycles of private opening and expropriation. These are the incentives that drive private investment to the opposite direction—such as Brazil, Colombia, and Peru, or more recently Mexico—have had either moderate left or center-right governments in power. Thus, in this so-called high-sunk-cost sector, the effects of a decline in investment can take years to lead to the consequent decline in production. Therefore government leaders with a short-term horizon may be tempted to over-tax and conceal the significant inefficiencies of the national oil monopoly, Petróleos de México, or Penex. The future costs of the lack of investment were not perceived by the political leadership and even less by the general public, so there was no rush for reform.

Once Cantarell’s production started to collapse in 2005, the need for reform became clearer, but high oil prices made it initially less urgent. However, as Penex capital expenditures dramatically increased but only barely slowed declining output, the case for reform became much stronger. Cantarell’s production has declined more than 80% from its peak. The urgent need to attract foreign investors in the more profitable projects changed the existing oil deals until 2005, after all major investments had been made and prices had swung up significantly. The protracted and confrontational expropriation process that ensued significantly increased the government share of revenues. It also affected Venezuela’s reputation, delaying all major new investments and creating very high opportunity costs in terms of foregone future production. Lately, as production faltered and the high-spending regime became desperate for more revenues, realism led the government to offer investors better terms and guarantees. Although investors have continued to be cautious, the change in the Venezuelan government’s attitude is palpable. This pragmatism—or desperation—has become more obvious after the price collapse because of the urgent need to increase investment and production. Thus foreign investors were victims of the price boom and their own success in increasing production and reserves. The cycle of investment and expropriation in Venezuela is similar to what happened in Argentina, Bolivia, and Ecuador. In all four countries, an oil opening produced a large increase in privately operated production and reserves, followed by expropriation when conditions were ripe.

MEXICO: THE COLLAPSE OF A GIANT AND ITS CONSEQUENCES

Mexico was an exception to the liberalizing trend in the 1990s. Historical and ideological reasons can help explain this exceptionalism, but the major factor behind the lack of reform is that Mexico’s production kept increasing without significant new investments. The giant oil field of Cantarell, which produced more than two million barrels a day at its peak (or close to two thirds of the country’s production), allowed the government to over-tax and conceal the significant inefficiencies of the national oil monopoly, Penex. The future costs of the lack of investment were not perceived by the political leadership and even less by the general public, so there was no rush for reform.

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Thus foreign investors were victims of the price boom and their own success in increasing production and reserves. The cycle of investment and expropriation in Venezuela is similar to what happened in Argentina, Bolivia, and Ecuador. In all four countries, an oil opening produced a large increase in privately operated production and reserves, followed by expropriation when conditions were ripe.

VENEZUELA

In Venezuela, a successful operation of private companies in the oil industry led to nationalization, while the stagnation of that industry in turn led to pragmatism in dealing with the problem. In the 1990s, facing low oil prices, fiscal crises, and significant investment needs, Venezuela opened the oil sector to private investment in the more risky and least profitable projects. This was a major departure from the nationalization in 1975, which had made state-owned PDVSA the monopoly producer. The opening attracted significant investments by major international players, including Exxon, Shell, BP, Chevron and Total, leading to a substantial increase in production of more than one million barrels per day (equivalent to more than a third of current production levels).

When Chávez was elected in 1998, oil prices bottomed out, but he did not change the existing oil deals until 2005, after all major investments had been made and prices had swung up significantly. This was a short-term horizon may be tempted to obtain high current benefits while deferring costs, leaving future leaders to bear the political consequences of declining production and revenues. To illustrate the dynamic of incentives, we focus on the three leading producers and reserve holders in the region: Venezuela, Mexico and Brazil.

Above: the community around the Zumaque oil well in Venezuela; opposite page: Harvard and Brazilian students tour a Petrobras facility.
BRAZIL: PETROESTADO NOVO?

Even though Brazil is still a net importer of oil, it has increased its production more than fourfold over the last two decades, catching up to the production levels of Mexico and Venezuela. That success is in large part the result of the liberalization of the oil industry in the 1990s, when Petrobras, the national oil company, was partially privatized and the petroleum sector opened to foreign investment. As a net importer, the country was eager to maximize its oil reserves for equity in the company, in a move that many analysts considered a form of expropriation.

Thus, even though Brazil had been considered a model of oil regulatory policy, the effects of its success and the prospect of becoming a net oil exporter also induced a milder version of resource nationalism. Even though Brazil had been a net importer, it has increased its production significantly and has negative long-term welfare implications.

THE POLITICS OF OIL

The incentives provided by price cycles, investment cycles, endowments and institutions, are key to understanding the waves of resource nationalism and liberalization. The region has been more prone to this type of policy volatility than other regions in the world, partly due to the combination of factional democracies, weak rule of law and rampant high inequality.

Given propitious circumstances, resource nationalism ideologies could flourish again. After a cycle of significant investment that adds substantial production and reserves, changing the rules may be even more pronounced. The incentive to take long-term approaches that limit their ability to opportunistically renegotiate deals could moderate the effects of such volatile incentives. Independent regulatory agencies, as well as progressive and effective fiscal and contractual regimes that properly tax the windfall profits, would be helpful.

Conversely, changing incentives, like those prompted by a prolonged period of low oil prices, could induce further pragmatism and liberalization. Net importers or countries that have both declining production or reserves and a portfolio of high-risk projects would be pressed to be more open.

From the countries’ perspective, resource nationalism is a problem only if it hinders the development of the oil sector and has negative long-term welfare implications. A pragmatic version of nationalism, one that maximizes enduring benefits for the nation without volatile policy cycles, is highly desirable, if all too rare in Latin America. Understanding the challenges explored here and creating institutions to mitigate them should be one of the main long-term goals of policy reform in the region.

Francisco Monaldi is Baker Institute Fellow in Latin American Energy and Adjunct Professor at Rice University. He is the Founding Director of the Center on Energy and the Environment at IESA in Venezuela and a Faculty Associate at ITESM in Mexico. He was Visiting Professor of Energy Policy at the Harvard Kennedy School in 2012-2013.

IMPLICATIONS FOR THE FUTURE OF THE LATIN AMERICAN OIL INDUSTRY

• Marcela Magnú, an Argentine artist, photographer and freelance graphic designer, has exhibited her photographs in Argentina, Chile, Brazil, the United States and Italy. In 2013, she received an honorable mention for her series “Lund” in the Salón Nacional de Artes Visuales, in Buenos Aires, as well as a prize in the IV Argentine Contemporary Photography Award, Cemafi Museum, Córdoba, Argentina. The Government of the Province of Santa Cruz, Patagonia, Argentina, awarded her first prize in Santa Cruz province’s Cultural Heritage Contest in 2007.

• Ronald Morán, a Salvadoran artist, created this image of “Crudo Blanco,” shown on the opposite page. Through his works, Morán performs critical interpretations of relationships and everyday environments, using a fine sense of irony and highly intuitive, metaphorical use of images. He is particularly interested in exploring political and economic violence and its influence on the family and within the society as a whole.

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LISA VISCIDI 13
Energy and Politics in Brazil
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MYRNA SANTIAGO 16
Mexico’s Energy Reform

REBECCA RAY 20
China in Latin America
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