The Politics of Oil in Mexico: Consolidating the Reforms

A Working Paper

By Jeremy Martin
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This Time, It’s Different
To date, no one appears to have ever attempted to assemble a quantitative analysis of the number of diagnostics and policy prescriptions that have been written for the Mexican energy sector, or the oil industry and Pemex more precisely. All the same, the amount of ink spilled and breath dedicated to the subject has been immense. Countless bottles of tequila have been consumed as fiery debates raged over the best path forward for Mexico’s national patrimony (oil) and national icon (Pemex). Anyone who has worked in or followed the Mexican oil sector over the past two or three decades surely has been privy to conversations and debates over what ails the country and how to solve it.

The energy reform efforts that began in earnest in the early 2000s during the Vicente Fox government, followed by those of the Calderón administration in 2008, were important in the context of moving the debate forward but not in terms of ultimately effecting change. Resistance and opposition to overhauling the sector had not entirely disappeared by Enrique Peña Nieto’s election in 2012, but sufficient political will emerged to more forward in modernizing and setting a new path for the sector. Moreover, as candidate Peña Nieto had been emphatic about his desire to seek major energy reforms and had won a clear-cut electoral victory. Indeed, he asserted in several interviews that he would stake his administration’s success on attracting private investment to Mexico’s oil patch. After his election, he quickly translated that reform mantra to a coalition and agenda called the Pacto por México.¹ That this pact fell apart was less important than the fact that it had catalyzed the energy reform process and allowed the Institutional Revolutionary Party (Partido Revolucionario Institucional; PRI) and National Action Party (Partido Acción Nacional; PAN) to collaborate and negotiate an ever-more ambitious reform agenda. As Peña Nieto noted during the December 2013 signing ceremony for the energy reform measures—to much applause across the global energy business—he had succeeded in confronting an enormous amount of historical legacy in Mexico, what he called the
country’s “myths and taboos.” Phrased a bit differently: *this time, it’s different.* But what exactly, as of early 2018, have those differences resulted in for Mexico?

The cornerstone of the Peña Nieto energy reform, as he had discussed since his presidential campaign, was the need to amend the Mexican Constitution and overturn the seemingly iron-clad prohibition of private sector participation and investment in the country’s energy sector. Nowhere was this more relevant than with regard to oil and the national icon of Pemex. The Peña Nieto reform successfully amended Articles 25, 27, and 28 of the Mexican Constitution to open the country’s oil sector to private participation and new contractual opportunities for Mexican hydrocarbons, though the reform measures nonetheless ensured that the state would retain ownership of the nation's subsoil. The nature of the constitutional change was key to institutionalizing and securing the reform’s intent and longevity, and it remains the defining element.

Additionally, Mexico has moved extremely quickly to implement a major institutional and regulatory restructuring of its entire energy value chain, most critically for private investment in the oil sector. The pace at which the reform has been implemented is particularly impressive when compared with other reforms undertaken in Brazil and Colombia, which took considerably longer. A key part of that pace has been executing the Round Zero process with Pemex and proceeding to prepare terms and contracts, and host a series of auctions that have offered investors a range of opportunities from onshore to deep-water to mature fields. To date, Mexico has hosted eight auctions as part of three bid rounds. Perhaps most important, the auctions have forced Mexican government and industry to work together to ensure that the process not only is competitive globally, but also adheres to industry standards and best practices and exhibits the highest levels of transparency.

Many of the ills afflicting Mexico, Pemex, and the national oil sector stemmed from the lack of technology transfer and insufficient innovation. The reform measures directly and indirectly confronted the need to foster innovation, and contained legal and other elements that would direct and incentivize embracing technology and innovation across
the industry—especially at Pemex. Indeed, provisions in the newly created contractual environment pushed Pemex maximize innovation and technology transfers. But in more concrete terms, the government has also sought to directly support investment in technology and innovation. For example, early 2018 saw the inauguration of a major research and development center in Veracruz aimed at Mexican-made innovative solutions to the challenges of the oil sector, particularly in the deepwater. Overlooked but also important is the fact that Mexico has inserted itself into the global energy governance system, and has formally joined institutions such as the International Energy Agency (IEA) and the Extractive Industries Transparency Initiative (EITI) that will enhance the institutional overhaul and transparency of Mexico’s oil sector.

On top of all of the major changes to the country’s hydrocarbons sector, the broader intent of the energy reforms, and subsequent Energy Transition Law, underscore the Mexican government’s desire to build an energy sector that is commensurate with the need to shift to a low-carbon growth model in the country. Mexico has made a strong commitment to boosting clean energy deployment and set forth ambitious emissions reduction targets and goals as part of its agreement as a signatory to the Paris Agreement on Climate Change.

The path to fully consolidating the reforms and creating a truly competitive, liberalized Mexican oil market is a long one. It is not very useful to set a timetable or projection for when that will or should occur. Yet it is clear that the first critical tests have been passed and the country’s path forward to a modern oil sector is far clearer today than before the reform was implemented. There will be challenges, and the rapidly changing global energy outlook is particularly critical for Mexico and where its oil sector fits. But this time, it is indeed different.

**The Reform’s Moving Pieces**

To complement and attain the overarching goal of increased competition and attracting private investment, the Peña Nieto administration sought to thoroughly reorganize and restructure the nation’s institutional framework for the energy sector. An overhaul of the
sector’s governance was critical to enhancing transparency and providing the institutional authority and independence for managing the sector’s opening. Defining the roles and oversight responsibilities was set forth in the reforms and secondary legislation, but not surprisingly remains a critical challenge for the long-term viability and in order to create a truly competitive energy market in Mexico.

**Government Institutions**

The reform’s overhaul of Mexico’s energy governance primarily affected the National Hydrocarbons Commission (CNH) and the Energy Regulatory Commission (CRE), with measures to transition each from government entities to fully independent regulators. Meanwhile, the role of the Ministry of Energy (SENER) and Ministry of Finance and Public Credit would be further defined in terms of the energy policymaking and fiscal elements of the new governance structure. The Ministry of the Environment (SEMARNAT) was chosen to support a newly created regulatory body (ASEA) charged with oversight of environmental and safety issues in all segments of hydrocarbon development. ASEA, was not however, granted the level of independence that the reform afforded CRE and CNH. Included in the restructuring was the transition of the nation’s two state-owned enterprises in the energy sector, Pemex and CFE, to what the reform had denoted as a new quasi-governmental structure called a productive state enterprise. More on that below.

According to a succinct analysis prepared by the IEA (figure 4.1), SENER is the principal energy policymaking body in the government, charged with setting general energy policy in all areas. Moreover, in the oil and gas sector, SENER is responsible for defining which oil and gas fields would be auctioned, and for designing oil contracts and the terms and conditions of the bids. SHCP is responsible for setting the fiscal and economic terms of oil contracts and determining other bidding variables, as well as determining pricing for a certain range of petroleum products. SEMARNAT hosts the newly created regulatory ASEA, which is charged with overseeing and supervising the environmental impact and safety of operations across the entire hydrocarbons value chain.
Meanwhile, CNH as a newly constituted independent regulator is responsible for regulating all upstream activity in the country’s oil and gas sector, as well as conducting public auctions and bid rounds and administering and overseeing upstream oil and gas contracts. CRE, the most mature regulator—having been created more than 20 years ago during electric sector market reforms—is charged with regulating the electric sector and overseeing midstream and downstream operations and segments of the hydrocarbons value chain. Notably, these reforms provided both CNH and CRE autonomy and independence from the federal government and created a new institutional structure that allotted each agency seven Senate-approved commissioners, with staggered terms to provide continuity and minimize political interference.  

Another institutional change was derived as part of the process and transformation of Pemex and the reduction of its monopoly in Mexico’s oil and gas sector. As part of that effort, the reforms forced Pemex to hand over to the newly created CENAGAS (Centro Nacional de Control del Gas Natural) control of its 87 natural gas pipelines across almost 9,000 kilometers. Pemex was thus limited to providing system maintenance and
operational assistance.\textsuperscript{3} Meanwhile, privately developed and operated pipelines were permitted to integrate into the national system in adherence to open-access principles.\textsuperscript{4}

CENAGAS was created to manage, administer, and oversee the nationwide operations, transportation, and storage of natural gas. It is charged with coordinating the country’s natural gas supply and distribution network in the most secure, efficient, and reliable way possible, including authority and responsibility for overseeing the bidding process by which private enterprises can invest in Mexico’s natural gas pipeline network. Beyond taking over the administration and maintenance of the existing pipeline system, a key element of its mandate is to expand the pipeline network in Mexico. Plans point to an ambitious expansion of Mexico’s natural gas pipeline network with projections indicating more than doubling the network to more than 20,000 kilometers by 2019.

\textbf{Figure 4.2 Energy Sector Regulatory Agencies and Legal Structures}

![Energy Sector Regulatory Agencies and Legal Structures](image)

Source: CRE.

\textit{Productive State Enterprise}

The reforms focused on restructuring Mexico’s state-owned enterprises and sought to convert PEMEX and CFE into “state productive enterprises” whose portfolios of responsibilities (which previously included issues such as the country’s energy security) were revised to focus on value creation.\textsuperscript{5}
As part of the transition for Pemex to become a productive state enterprise with a focus on efficiency and competition, the reform spelled out major changes to the company’s structure, particularly the composition and size of the board of directors. The total number of members was cut from 15 to 10, and the five board members representing the oil workers’ union were removed and replaced with five public members. The number of government representatives likewise was reduced to five seats to be held by the energy secretary (the chair of the board), the finance secretary, the economy secretary, the environment secretary, and the deputy secretary for hydrocarbons. Further structural adjustments aimed at reducing costs and boosting efficiency at Pemex included reducing the company’s subsidies from four to two, and enacting overarching managerial reforms of the company’s legal, financial, and human resource functions. One of the new subsidies focuses on upstream activities while the other manages industrial transformation, essentially the downstream segments and aspects of the company’s portfolio. In a further effort to enhance productivity, Pemex created five new subsidiaries focused on drilling, logistics, cogeneration and services, fertilizers, and ethanol.6

As discussed above, the Pacto por México had included major structural adjustments intended to boost economic growth and competitiveness in Mexico. Fiscal reform and enhanced tax collection were seen as key pieces to complement the energy reform measures. For years, Mexico held the notorious distinction of topping the Organization for Economic Cooperation and Development (OECD) ranking for lowest tax revenue of its member countries.7

To complement the energy reform, and in an acknowledgment of the fiscal straightjacket that decades of Mexican governments had placed on Pemex, the Peña Nieto administration pursued a major overhaul of the federal tax system largely focused on reducing tax breaks, boosting income taxes, and improving collection. As part of the fiscal reform, Pemex would see reduced tax rates, specifically in the number of taxes the company would be required to pay the federal treasury. Pemex was set to pay on the order of 36 percent in taxes and royalties per year, a major reduction in its burden that routinely had been three times greater than the new figure.8
Mexico’s Sovereign Oil Fund

Formally known as the Mexican Petroleum Fund for Stabilization and Development (Fondo Mexicano del Petróleo para la Estabilización y el Desarrollo), the Mexican sovereign oil fund was created as part of the reform measures to bring increased transparency and fiscal discipline to the management of the economic rents derived from the development of the country’s hydrocarbons. Specifically, the fund was established and placed under the management of the central bank and a board comprising the ministers of finance and energy, the chairman of the central bank, and four independent members nominated by the president and ratified by the Senate. The fund will hold all royalties and resource rents from the oil and gas sector. The parameters for usage spell out clear limitations and note that the right to withdraw from this fund to finance the government budget is capped at 4.3 percent of gross domestic product (GDP).9

The fund draws from the lessons of other countries where the management of the oil sector and its fiscal impacts offered mechanisms to improve fiscal stability and management and allay concerns over the so-called resource curse. These financial structures, often referred to as sovereign wealth funds, are deemed critical to effectively diversifying and allowing for the investment of wealth derived from resource production—petroleum, in the case of Mexico. In the oil sector, Norway has the most relevant and largest fund, having built up a tremendous financial portfolio in excess of $1 trillion with the express purpose of providing a countercyclical fund and reserve “for when the oil and gas reserves run out.”10

Clearly, international references greatly informed this element of Mexico’s energy governance restructuring and enabled the creation of a well-conceived plan for managing natural resource wealth. But executing and implementing the objectives of the fund requires continued evaluation and attention. Indeed, Norway has continually reevaluated its fund’s mechanism and structure for ensuring that its citizens reap the greatest financial benefit from its finite natural resources. This is particularly relevant not just for the fund but for the related aspects of the management and role of the national oil company, an area where Mexico’s reform is subject to ongoing debate.
Round Zero

Called by some the first concrete step toward breaking up Pemex’s monopoly in Mexico’s oil and gas upstream, Round Zero was the process by which the national oil company submitted to SENER and CNH the assets it wished to keep under its control. Prior to the first public auction held by the government (Round One), the reform spelled out a process that granted Pemex an opportunity to request from the government an initial allocation of exploration and production rights and assets to maintain its participation in the market. Unique as it sounds, Round Zero was not invented for Mexico’s energy reform; Brazil and Colombia had held similar rounds as they revamped their petroleum sectors in 1997 and 2003, respectively.

Through the process, Pemex was required to justify its request in terms of financial and technical capabilities to develop the assets and projects it sought to retain. Ultimately, SENER (with input and advice from CNH) granted Pemex 21 percent of Mexico’s prospective resources, versus the 31 percent the company had sought. Overall, Pemex received rights to assets and projects that represented 85 percent of Mexico’s proved reserves and 20.6 billion barrels of oil equivalent (billion boe) of proved and probable reserves (2P) covering 90,000 square kilometers. Furthermore, the government agreed to reserve the right to assign, on an exceptional basis, additional exploration and production areas to Pemex.

Oil and Gas Auctions

One of the most critical elements of the reform process and its goal of opening Mexico’s upstream to competition and private participation was public bidding and auctions. As a byproduct of the framework established in the reforms, and the clear mandate for SENER as the policymaker and CNH as the upstream regulator and administrator of the auction process, the government created an ambitious program as part of its five-year plan for four bid rounds between 2015 and 2019 that will open a rich, diverse portfolio of exploration and development blocks across the country, both onshore and offshore.
To date, Mexico has carried out eight auctions as part of three bid rounds. Round Three contemplates two more auctions before the end of 2018, with discussion underway to add another auction and bidding aimed specifically at heavy oil projects. The auctions have resulted in important financial commitments, and as of late March 2018 Mexico had received pledges in excess of $173 billion to develop the projects.

Round One
The initial results in the first phase of Mexico’s Round One were highly criticized for the lack of competition and participation. The results of the country’s first private oil bidding in July 2015 was not the start that the Mexican government had sought, nor did it pan out the way those eager to invest had hoped. Some observers argued that in addition to the profit-sharing and investment requirements, the $6 billion corporate guarantee was too onerous.

By most metrics, including those established by the government, awarding merely 2 out of 14 blocks on offer was subpar. Yet there is more to the story than just the letdown in terms of the number of bids. The lackluster first auction also increased the burden on the government to improve competition and the fiscal and contractual attractiveness for future tenders, in particular the highly anticipated deepwater bidding. Given the volatility in international oil markets, there was much speculation over what might have happened in a more favorable oil price environment. But the July 15 results point more toward the minimum bid requirements and the floor established by the Mexican government, and specifically the finance ministry, that was the real game-changer for the tender. These were valuable lessons to learn, and to their credit, both the Mexican government and the industry seeking to participate in future auctions implemented important adjustments and modifications in the following rounds.

Yet despite the handwringing following the first auction, it immediately bore some fruit. One of the main goals of the energy reform measures was to boost competition and open Mexico’s oil industry to new entrants. Nine international and Mexican firms participated in the first bid round, and two blocks were awarded to Mexico-based Sierra Oil & Gas in a
consortium with Talos Energy from the United States and Premier Oil from the United Kingdom. The big winner in the first auction, therefore, was a consortium that included British and U.S. companies, led by a company established in Mexico specifically to pursue such new opportunities. Hindsight also has revised some of the more pessimistic views of the so-called failure of Round One’s first auction, as the Talos/Premier/Sierra oil discovery at a block won in the first-ever auction greatly buoyed the reform’s architects and proponents and affirmed the importance of unleashing private investment to search for and exploit Mexico’s hydrocarbons.

As the rounds proceeded, the government actively sought to adjust to the market realities the future bidding opportunities with increasing success. The changes produced improved results during the second auction of Round One as the government awarded three out of five shallow-water blocks on offer to a wide range of international companies including Eni of Italy; Pan American Energy of Argentina (partially owned by BP); Fieldwood Energy from the United States; and PetroBAL of Mexico, a private firm with solely Mexican capital that was created expressly to pursue the market opening in Mexico. Moreover, the block that Eni won at the second auction of Round One also proved to be an important investment and led to a major discovery announced in mid-2017, with oil production slated to begin in early 2019. Interestingly, Eni reportedly is in talks with Qatar Petroleum to farm in—that is acquire a stake—in their project and discovery, further affirming the increasing maturity of the Mexican oil sector and the global interest in it.

Mexican authorities adroitly developed the third auction of Round One to boost participation by Mexican firms and operators. Indeed, the auction came to be known informally as the “Mexico Round,” and was a key piece of the government’s efforts to incentivize and stimulate participation and market access for Mexican firms in the evolving market by offering less onerous financial requirements and bidding terms. Twenty-five on-shore blocks were offered as part of Round One’s third auction and all were successfully tendered, with 18 won by Mexican firms.
The fourth and final auction of Round One had been purposely placed at the end of the round. Mexico was finally starting to open the so-called jewels in the crown: the highly touted opportunities for private exploration and production in its offshore deepwater in the Gulf of Mexico. The most anticipated and lucrative of the Round One auctions, it included 10 blocks; late in the planning stages, a deepwater joint venture project known as Trion was added in parallel to the bidding process and public auction set for December 2016. Trion was added in July, seven months after the auction and terms had been formally launched.

The Trion project was the first of the farmouts permitted under the reform to allow Pemex to seek a partner for developing major deepwater opportunities. The structure of the reform required Pemex to conduct a public process for its partner through the modality and management of CNH. By placing the deepwater auction at the end of Round One, the Mexican government assiduously worked to enhance the fiscal and contractual terms throughout the preceding year and a half in order to prepare for the hugely important offer for private investment in the country’s deepwater—projects and investments that typically run into the several billions of dollars and can take up to a decade to produce their first barrel of oil.

The government had received an enormous amount of information and feedback from earlier auctions, and all involved had developed a keener understanding of how to structure the bid process for competitive data rooms for qualification and participation, but most important in terms of the fiscal and contractual elements that would dictate investors’ final bidding and auction offering decisions. Though there had been some debate about the offering structure early in the development of the Round One bid process, Mexican authorities ultimately decided to offer the deepwater blocks using so-called license contracts that are similar to standard international oil and gas concessions.

On December 5, 2016, the Mexican authorities gathered at a massive conference facility in Mexico City, which ironically abutted the city’s horse racing track. The government hoped that the deepwater bids would spur enthusiastic competition among international
oil companies seeking to enter the Mexican market and further develop the country’s deepsea oil riches. As the deepwater oil and gas auction came to a close, words such as *momentous, significant,* and *historical* were flying around Mexico City and the broader global energy world. As the final block was adjudicated just before the Mexican lunch hour, the success in terms of winning bids, competition, and diversity of bidders was clear for all at Mexico City’s Centro Banamex and those watching the livestream to see. Although Secretary of Energy Pedro Joaquin Coldwell had indicated that SENER would be happy if four of the ten blocks were awarded, a full eight of the ten blocks on auction, and the farmout and partnership with Pemex, were successfully tendered, exceeding the government’s expectations. The first-ever Pemex farmout was awarded to the Australian firm BHP Billiton, based on a winning payment of $624 million. It had tied with BP in terms of additional royalty commitments—each had bid 4 percent.

Given the diversity and size of the bids tendered, oil prices difficulties and capital constraints did not have as much of a depressing effect as anticipated. The success of the auction offered a strong argument that even in a capital-constrained global energy market, large projects could still be successful when the investment terms and conditions are right. Likewise, fears of Pemex’s ongoing troubles seemed to be greatly exaggerated. As the forthcoming projects with BHP Billiton and Chevron & Inpex underscored, Pemex was in a position to work as part of major international consortiums to learn firsthand the best practices and operational excellence of the oil and gas industry. Sierra Oil & Gas—a Mexican firm that was created to pursue opportunities in the Mexican oil sector—also was able to carve out an important role in Mexico’s postreform upstream landscape, participating in two more blocks to bring its total to four. It was the most aggressive and committed bidder with bids that far exceeded the minimum additional royalty terms established by the government. Yet without the energy reform measures, Sierra Oil & Gas would not have existed in the first place.

CNH and the Mexican government conducted the deepwater auction with sufficient transparency, as well as a highly rigorous qualification and adjudication process that left few doubts as to the validity and objectivity of the bids. The terms and process produced
an important level of competition, particularly for Salina Basin opportunities. The deepwater auction attracted a number of major upstream oil and gas firms, with BP, ExxonMobil, Chevron, Total, Statoil, CNOOC, and Petronas all emerging as winners (figure 4.3).²¹

**Figure 4.3 Mexico’s Deepwater Auction: Winners**

<table>
<thead>
<tr>
<th>Block</th>
<th>Winner</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmout</td>
<td>bpbilliton</td>
<td>Australia</td>
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<tr>
<td>PERDIDO</td>
<td></td>
<td>China</td>
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<tr>
<td>Block 1</td>
<td>ExxonMobil</td>
<td>France/US</td>
</tr>
<tr>
<td>Block 2</td>
<td>bp</td>
<td>US, Mexico, Japan</td>
</tr>
<tr>
<td>Block 3</td>
<td>bp, Total</td>
<td>Norway, UK, France</td>
</tr>
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</tr>
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<td>Block 5</td>
<td>bp, CNOOC,</td>
<td>US, UK, Malaysia,</td>
</tr>
<tr>
<td>Block 6</td>
<td></td>
<td>Mexico</td>
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**Round Two**

Similar to the structure of Round One, the Mexican authorities placed the most lucrative opportunities and blocks as the final auction for the round. Just as Round One concluded with deepwater blocks on offer, Round Two concluded with an even greater number of deepwater blocks for bidding. In the end, 19 of the auction’s 29 blocks were successfully tendered, far outpacing the estimates of many in the government and industry.²² Winning bidders paid the government $525 million as part of their offers to acquire blocks in the auction. Moreover, the government again was quick to highlight the investment pledges
and potential of the round: an estimated $93 billion over the life of the projects adjudicated. Authorities also noted that the blocks ultimately could lead to oil production of approximately 1.5 million barrels per day. Most important, perhaps, was the commitment displayed by Shell, which was by far the most aggressive bidder and won 9 of the 19 blocks adjudicated by the Mexican government.23

Earlier in the round, the first auction focused on shallow-water opportunities and counted 15 blocks on offer. The government was pleased with the results, as 10 of the 15 were adjudicated and the previous winner increased its participation in the Mexican market by winning three bids. Major players Total and Shell also acquired blocks. In addition, Colombia’s Ecopetrol acquired its first block and investment in the Mexican market.24

Round Three
On March 27, 2018, Mexico’s historic energy reform reached another milestone. With the clock ticking and the July 1 elections looming, the Mexican government showed no signs of slowing its pace. By most accounts, the first offer of the Round Three auctions exceeded expectations, highlighting what several industry analysts insisted is the most critical factor supporting Mexico’s opening: the potential and prospectivity of below-ground resources. All told, 16 of the 35 blocks on offer were awarded. Most blocks featured competition among several possible investors, and led to some aggressive bids and fiscal upside for the Mexican government. Cash bonuses offered to the Mexican government by winning bidders surpassed $124 million. Total investments in the projects were posed to exceed $8.5 billion over the life of the contracts.25

Before March 27, the Mexican government had been gaining confidence with increasingly competitive bid rounds and growing investment commitments and market participants. CNH and SENER officials promoted the fact that the first- and second-round auctions led to more than 90 contracts signed, hundreds of millions of dollars in cash bonuses offered by winning bidders, and long-term investment plans that could reach as high as $150 billion over the course of the contracts. These early bid rounds produced important lessons for the government on the mechanics of the auction process and, most important,
on how to prepare and finalize the contract and fiscal terms for the blocks on offer. Moreover, important oil discoveries by new market participants in the months leading up to the auctions greatly undergirded further bidding efforts and in many ways were able to lower the risk of some of the elements of the nascent market for new entrants in Mexico.

*Farmouts*

José Antonio González Anaya, the second director-general of Pemex under President Peña Nieto, assumed control of the company in early 2016. In many of his initial interviews, speeches and public appearances, he went to great lengths to emphasize the need and opportunity for Pemex to seek partners. Partnerships, he argued, are a way for Pemex to address some of its fiscal constraints but also provide lessons and support for more efficient and technologically savvy development of its assets, especially the more challenging ones in its portfolio. “If we can get efficiency gains through operation, through technology, it’s even more profitable for Pemex,” he argued in terms of the differences between outright sale of an asset and joint ventures.26

As part of the process of asset allocation undertaken during Round Zero, certain projects that remained under Pemex’s control, particularly those that required more capital and technology, were viewed with an eye toward utilizing one of the reform’s key elements: private sector partnerships with Pemex. As had been argued during years of energy reform debate, such partnerships would give Pemex not only new possibilities for access to capital but also other key elements for developing large, challenging oil projects, including technology transfer, know-how, and managerial skills. The company desperately needed the exposure and experiences from these partnerships and joint ventures with international and private firms with global reach and experience. Fortunately, the energy reform had given Pemex a method to attract partners.

A key modality for this new ability was the farmout process, by which Pemex could formally invite companies to partner on the development of specific projects. Specifically, the government developed a process by which Pemex would be allowed to seek partners through a practice known in the oil industry as a farmout, a process whereby the national
oil company could bring on a private partner that would then commit to future contribution of capital and operational expenses. Most important, the government expected Pemex to seek partners and farm out a number of fields which it had started to develop. As Adrian Lajous, a former director-general of Pemex, has noted, the farmout process recognized Pemex’s investment in past exploration and production efforts and enabled it to partially monetize those assets.27

Interestingly, however, the format for Pemex to proceed with the farmouts was to be closely managed and directed by the government, with SENER, SHCP, and CNH all providing input. One of the most unusual parts was that the Pemex farmout opportunities would be managed through the government’s auction and public bidding modality, though Pemex did retain the ability to provide technical input as part of the preparation of the bidding documents. Adrian Lajous called the structure an “awkward arrangement.”28

Plaudits
The energy reforms have received their fair share of both praise and criticism. It is worth looking in greater depth at some of the highlights of the reform for Mexico’s energy future.

Pace
As with most highly politicized issues, Mexico’s energy reform has had its dissents, with one possible exception: the speed and pace at which the reforms and significant steps have unfolded. As discussed previously, the opening of the sector based on constitutional amendments to Articles 25, 27, and 28 required developing a strong new legal and regulatory framework to allow new participants in the sector, to strengthen existing regulators, and to create new agencies. This process took less than three years—a stark contrast with other countries where similar market overhauls took four to six years to be in a position to hold their first public bid round.

The approval of the reform, secondary legislation and key steps have taken place swiftly for a number of reasons. As an example, it is worth looking at the previously discussed process known as Round Zero, one of the most critical phases to delineating the role and
asset ownership of Pemex, the government, and possible private market participants. Brazil and Colombia underwent similar structural changes intended to reshape the ownership of their oil between nation and national oil company. The international context is important. Not only have Colombia and Brazil embarked on similar paths to opening their oil sectors in terms of verbiage, but compared with Mexico, in both countries the Round Zero process was managed comparably over a more extended period. Brazil took the better part of two years to define Petrobras’s Round Zero assignments; for Colombia’s Ecopetrol, the process lasted over a year. Mexico completed the Round Zero process in less than one year.

Beyond that concrete example, when it comes to the oil sector opening, Mexico has proceeded to implement secondary legislation and a redefined energy governance structure that created several new agencies and reconfigured others. Additionally, as the government is keen to emphasize, Mexico has hosted eight auctions that have garnered over 100 contracts with new, private market participants with major investment commitments.

**Constitutional Amendments**

As Mexico hurtles toward elections in July 2018, the steps taken by the Peña Nieto government to gain energy reform through a constitutional amendment are of increasing importance. A two-thirds majority vote in Congress is needed to amend, or in the case of the energy reform, overturn, the constitution. Given the fractured state of politics and the likelihood of a fairly divided legislative body, it is unlikely that whoever wins the presidency will be able to cobble together sufficient support for a new constitutional change. Therefore, as the political rhetoric of the 2018 electoral cycle ramps up, it is evident that enshrining the reform tenets in the constitution provides important sustainability and greatly reduces the potential for political interference, or at least demands a political majority to reverse the constitutional changes.
Regrettably, the Peña Nieto administration has suffered greatly from a series of scandals that called into question the integrity of his government. Indeed, much of the aforementioned 2012 campaign rhetoric—particularly that of a new PRI, one above scandal and not tainted by the party’s legacy of corruption—have all but disappeared. But with regard to the energy reform, there have been important strides and progress to ensure the uprightness of the measures and their implementation across the government. Three key indicators point to the gains made during the energy reform.

First, during the entire development and execution of the upstream auctions held by the government and specifically CNH, the process has been conducted in an open, well-defined, and transparent manner. The qualification process, in fact, has been criticized for its bureaucratic hurdles, which surely have been done with an eye to full openness. Moreover, the actual auctions and selection process have all had live transmissions, with fully open and transparent solicitation and bid opening ceremonies, and have been applauded by experts and practitioners across the globe.

Second, the previously discussed farmout process at Pemex has been conducted with true openness. As awkward and unusual as the process may be for a company to acquire a partner through a public bidding process, the reform clearly spelled out the procedures as a critical part of the effort to render the highest level of transparency to the entire upstream auction and bidding process. Government officials and all stakeholders involved in the reform understood and recognized that any doubts (or worse, scandals) could greatly impinge the reputation of the entire reform and jeopardize its future.29

Finally, in late 2017, the EITI board approved Mexico’s application to join what has been called the global standard for the good governance of oil, gas, and mineral resources. Acceding to the EITI is an important step of the energy reform process in Mexico and its efforts to not only increase transparency but also bring to bear international best practices and further decentralize and socialize the access to critical information about the development of Mexico’s natural resources, particularly its oil reserves. According to the
press release coinciding with Mexico’s accession, “the EITI addresses a range of issues relevant to the outlook for the oil, gas and mining sectors, including license allocation, production data, tax transparency, the role of state owned enterprises, and the allocation of the revenues, including to the recently created Mexico National Oil Fund.”30 Mexico will now proceed to gain implementing country status with the EITI, a process that will require it to adopt EITI reporting standards within 18 months. Further, the process requires validation within two-and-a-half years from the acceptance of its candidacy. The validation process could prove to be the most relevant. Attention derived from adherence to EITI standards typically focuses on boosting governance and transparency in revenue management. In Mexico’s case, the focus is on the EITI’s multiple-stakeholder group and its efforts to promote dialogue. The validation process will assess how Mexico has fared with the adoption of the EITI standard, along with the critical lessons learned and evidence of addressing stakeholder concerns and recommendations. Indeed, as Shell’s Mexico country chair, Alberto de la Fuente, noted, “The EITI is a fundamental standard in our industry . . . this tool will contribute to an informed, transparent and accountable public discussion for the benefit of Mexicans.”31

In addition to joining a large group of like-minded countries and the agreement to standards, protocols, and procedures for managing natural resource development, the EITI is also an important mechanism for the involvement of civil society and nongovernment organizations in a forum for open, transparent dialogue with government and industry. Beyond the obvious elements of increased transparency and improved management of the natural resource value chain, a key EITI element is the multi-stakeholder group involved in all implementing member countries. Each country develops its strategy for adherence to EITI standards through its multi-stakeholder group composed of government, industry, and civil society representatives.

Naturally, the need to further imbue Pemex with a sense of this goal and end-game remains a huge element going forward, one that should be addressed as part of the effort to consolidate the reform. Suffice to say that the recent scandals, including the
transgressions of President Peña Nieto’s first Pemex director-general, are significant knocks against what has indeed been a transparent and honest market sector opening.

**Investments**

The results from the reforms in terms of investment commitments have increased as the market opening and auction process has been refined. Recent investment commitments have begun to underscore a key factor supporting Mexico’s opening: the potential and prospectivity of the below-ground resource. The auctions and bidding have demonstrated that the reforms have been successful in designing an internationally competitive legal and regulatory framework and significantly incorporating the global oil industry’s best practices. The Mexican government proudly touts the running total of contracts, the number and geographic diversity of companies, and the level of investment commitments attained as part of the upstream auctions and bidding process. As of late March 2018, Mexico had received commitments greater than $173 billion to develop the projects.  

An 2016 IEA analysis assessed the investment impact of the reform measures on investment and private participation, and speculated on what might have transpired had the reforms not been implemented. The study found that if Mexico had not implemented the 2013–14 reforms, its oil production would barely recover to 2.3 million barrels per day and it would receive 45 percent less revenue from the oil sector. Specifically, the IEA “No Reform Case” indicates that by 2040, the value caused by the lost oil output could have reached $650 billion, while upstream investment would be around $260 billion lower.

**Discoveries**

As discussed, one of the strongest challenges that had built up over time for Mexico and its national oil company was declining production, worsened by an inability to replace the oil reserves it was producing. Even as Pemex produced less and less oil, it also found less and less of it, and could not achieve the standard for future sustainability of at least 100 percent of reserve replacement. This challenge remains at Pemex, but Mexico’s national oil sector outlook has seen important developments directly related to the
entrance of private participants and stemming from the auction process and investments flowing into the sector.

In January 2018, for the first time since the expropriation of foreign oil companies in 1938, Mexico certified oil reserves of private and foreign market participants. According to CNH, the discoveries made in two projects amount to some 251 million boe from two shallow water blocks auctioned in late 2015 to Italy’s Eni and Argentina’s Pan American Energy. CNH president Juan Carlos Zepeda announced to the media that “what we see here is the first certification of reserves that are being presented by two companies that received contracts at auction.” He added that the reserves from the two blocks have tripled since the companies took them over from Pemex. The latter point should require little explanation in terms of its importance for the reform’s implementation and as a diagnostic of the ills afflicting Pemex.

But in terms of plaudits reinforcing the structure and necessity of the reform, as well as potential material impact for Mexico’s oil future, there may be no better example than the discovery announced in July 2017 by the consortium of private firms Talos Energy, Premier Oil, and Mexico’s own native Sierra Oil & Gas. Though yet to be fully appraised, the discovery—known as the Zama well—could reach as high as 2 billion barrels. It has been called one of the top 20 largest oil discoveries of the past 20 years. Unlike the discovery made by Eni, the Zama well was in a previously unexplored area in close proximity to where a dry hole had been drilled. It was literally the first purely private oil discovery in Mexico in more than 80 years. In an interview with the Financial Times, Talos CEO Tim Duncan noted that “what really makes this unique is that this is truly an exploration project.” The discovery in many ways also highlighted Mexico’s prospectivity in its shallow waters, an area that Pemex had plied successfully for years, particularly the Cantarell field.

Innovation
For years, the legacy of nationalism and constitutional prohibition denied Pemex partnership opportunities with foreign and international firms and curtailed its ability to
innovate. Given these constraints, Juan Pardinas, director of Mexican think tank IMCO, described Mexico’s energy sector as “hermetically sealed” in a manner on par with that of North Korea. The major transformation of the industry evident in other countries—in many ways the digitalization of the oil sector—would have been virtually impossible through a monopolistic state-run system.

The lack of innovation was particularly acute with regard to the touted potential that Pemex and Mexico failed to monetize off its coast. With the shale revolution and the growth of unconventional hydrocarbon production in the United States, as well as continued developments in the deep waters of the Gulf of Mexico, the hindrances have become more apparent as multinational partnerships (including several national oil companies) took advantage of innovations in the oil industry. The benefits of such major innovations and technological advances were nowhere more evident for Mexico than in the discovery of significant oil and natural gas reserves just across the land and maritime border in the United States. Likewise, beyond the northern neighbor, much time was spent studying the innovation that propelled Brazil and its national oil company to be the world’s leading deepwater driller. These developments provided important elements to build broader arguments for the reform measures. Thus, a key goal of reform was to modernize the oil sector, in particular to provide avenues for Pemex to innovate and embrace opportunities.

In many cases, the aim to foster innovation was more implicit than explicit. However, specific language was aimed at what is known as technology transfers. The reforms contained elements of the overhaul at Pemex that would direct and incentivize the use of new technology and innovation. Indeed, certain provisions gave Pemex a chance to use the newly created realm and opportunities of contracts and joint ventures to maximize innovation and technology transfers. Reforms of the public works law and guidelines also granted Pemex the ability in some cases to use direct contracts if they or the joint ventures involved technology transfer. Such an approach is a clear display of how the reform measures have come together to boost private sector participation and partnerships at
Pemex at the same time as leveraging technology and know-how for corporate innovation.\textsuperscript{40}

Just after the historic date of March 18, President Peña Nieto inaugurated a new phase in Mexico’s oil innovation and the launch of the Deepwater Technology Center located in Veracruz. The center, a collection of five laboratories, will be spread across 21 hectares and will seek to place Mexico’s oil sector at the cutting edge of innovation and technology. Specifically, it will look for innovative solutions to three primary challenges: drilling of wells; environmental risks and qualification; and the design and development of tools, equipment, and systems.\textsuperscript{41} The launch of the center is a major milestone on the path to incubating innovation in Mexico, directly aimed at its need to innovate its deepwater capabilities. It will leverage Mexico’s existing National Science and Technology Council (Conacyt) and the Mexican Petroleum Institute (IMP) to further spur research and development to meet the reform’s innovation goals and focus on deepwater hydrocarbon exploration and production. Energy Secretary Pedro Joaquin Coldwell indicated that the new research center will develop talent and generate applied knowledge and solutions. It also will provide Mexican scientists with the opportunity to research and develop made-in-Mexico advances in equipment, processes, and materials for deepwater hydrocarbon development in the safest, most efficient, and most environmentally sustainable manner.\textsuperscript{42}

With the maturation of the Mexican oil and gas sector and the increasing deployment of private companies and capital in the country’s upstream, IMP can play a much more strategic role in supporting and boosting innovation and research and development. Instead of merely existing to satisfy the needs and requirements of Pemex, IMP can pursue medium- and longer-term strategic objectives, and perhaps collaborate with some of the recent arrivals in Mexico’s oil sector. This new outlook, as evidenced by the center in Veracruz, should greatly help to avoid a clear flaw at IMP and an inhibiting factor for innovation: the institute’s nationalistic perspective, one that favored short-term political goals.\textsuperscript{43}
**IEA Membership**

Similar to the importance for the broader economic performance and benchmarking that OECD membership affords Mexico, as well as the international best practice frameworks, the acceptance and approval of the Mexican Senate of the country’s IEA membership is another milestone. It complements the intentions of the reform to open the country’s energy sector to not just private participation but to the world. IEA membership also provides Mexico with an opportunity to integrate into the global energy governance structure. Of course, it is also important for the IEA in its effort to go beyond its traditional membership to include its first member from Latin America, a nation that straddles the line between the traditional divisions of oil producer and consumer nations.

With the formal announcement of Mexico’s IEA membership, Secretary Coldwell noted that “with this final step, Mexico enters the most important energy forum in the world . . . we will take our part in setting the world’s energy policies, receive experienced advisory in best international practices, and participate in emergency response exercises.” The official IEA press release added that it “is delighted to continue supporting implementation of Mexico’s energy reform with technical expertise, and further intensifying the fruitful bilateral dialogue of energy policy best practice exchange”

**Consolidating the Reform: The Path Forward**

Just as Mexico found itself at a crucial juncture for the future of its economic competitiveness after Enrique Peña Nieto took office, with a corresponding need to modernize its anachronistic energy sector, the country again finds itself at critical moment. Thanks to the 2013–14 energy reform measures, its energy sector has seen monumental change. But, as cases from across the globe have shown, it is even more essential to move beyond the initial overhaul and first phase of the reform process and consolidate the gains. It is at that point that Mexico finds itself as 2018 unfolds.

One point of note is that of oil prices. A significant amount of attention has been paid to the questions of the reform’s implementation against the backdrop of a major collapse in global oil prices. No assessment can ignore the impact upon the government’s plans for
auctions and even the transformation of Pemex as part of the prescriptions set forth in its mandate to become a productive state enterprise. At the same time, global commodities markets, none more than the international oil market, are impossible to predict and are notoriously volatile. Therefore, any discussion on the path forward and steps for consolidating the reform must consider a lower price environment and continued oil price volatility as a constant, transversal element, not a factor to address in and of itself. If anything, the reform’s visible successes in the face of the persistently strong headwinds of a global oil price downturn should be praised as a vital achievement. Those strides support the premise that Mexico’s oil prospectivity can attract investment even under the most challenging circumstances.

As would be expected with the implementation of measures intended to throw off almost 80 years of history and entrenched power, a wide range of areas demand further attention. But it is worth stressing five areas that, if attended to in the coming months and years by the Mexican government and its citizens, could be critical in consolidating the reforms and ensuring their sustainability:

- Revising and refining the vision for reform of the oil sector
- Whither Pemex and defining further reform of the national oil company
- Balancing regulation, oversight, and investment
- Improving security and reducing fuel theft
- Translating and highlighting benefits.

What is the Vision?
Despite the well-deserved plaudits and historical legacy overcome by the 2013–14 reform measures, the question of the vision remains. Even if Mexico has greatly advanced the national conversation to overcome its myths and taboos, it has not fully defined what the vision is for its oil sector. (Nor has it done so in terms of translating benefits, as discussed below.)
To date, the government and architects of the reform have posited a vision based upon structural adjustment aimed at eliminating the state monopoly and allowing private participation in the oil sector, all with the goal of greater economic competitiveness and GDP growth which should translate to jobs and upward economic mobility. For decades in Mexico, the oil status quo and what it represented for Mexicans could be understood in terms of economic, social, political, and environmental security. But if one steps back and digests the litany of economic, political, and energy indicators discussed throughout this analysis, they provide further questions and fewer answers. To properly define Mexico’s vision for the oil sector, it may also now be more appropriate to understand what role oil will play in the country’s development scenarios and plans in a postreform environment.

Is oil a pillar of economic development? Or rather, is it a key geopolitical tool to support Mexico’s energy security, one that guarantees access to secure and affordable supplies at reasonable prices for its citizens? This is particularly important to define as the oil and fuels markets in Mexico become increasingly unbalanced and the need to turn to imports grows, with all of its attendant economic and geopolitical concerns. These are questions that must be addressed by the country’s elected officials, but with input derived from the experiences of the implementation of the reform. Further citizen participation and deeper understanding of the fundamental question at the heart of the debate is necessary.

Perhaps part of the problem with the defining the exact vision is that Mexico does have a relative consensus as to how oil and national sovereignty are related. There is no doubt that said sovereignty allows the nation to determine and dictate how it manages its natural resources, principally its oil. But defining a vision that can rally enough support to ensure the certainty and continuity of the reforms beyond their basic enshrinement in the constitution is how to truly incorporate private investment to further manage and develop the country’s oil prospects, yet at the same time transform the national icon of Pemex into the modernized, efficient, and transparent market participant needed for the near- and midterm success of the oil sector. Which leads us to the most perplexing element: What must be done to guarantee this pillar of a revised vision and to ensure the viability of a
company that former President Vicente Fox once described as a symbol in Mexico as revered as the Virgin of Guadalupe.\textsuperscript{46}

\textit{Whither Pemex?: Reform 2.0}

Deputy Secretary of Finance Miguel Messmacher, a senior treasury official, posed a question that helps to frame the debate around transforming Pemex: can Mexico “make national champions into competitive firms” while “generating market incentives and increasing corporate governance?”\textsuperscript{47} Clearly, Messmacher, who became one of the one most public faces associated with the oil reform measures, new contracts, and investment promotion, knew what he was talking about when it came to Pemex, which explains why his questions seem rhetorical.

Messmacher also spoke of governance issues, which were clear targets of the Pemex reform. Regrettably, one of the most ballyhooed changes—the removal of oil workers’ union members from the Pemex board of directors and their replacement with private and independent directors—has proven feckless. This may have been the fault of the appointments, but more likely it was the lack of commitment within the government and the company to fully implement those pieces of this corporate governance restructuring. This demands attention in Reform 2.0. But managerial excellence, innovation, and fiscal prudence were never part of the equation of a national champion, at least as it evolved over the decades in Mexico. Thus the idea of making a national champion into a competitive firm may have been the wrong trajectory, particularly if cutting-edge innovation, technologies, and business practices were part of that end goal.

The Round Zero process may have underscored the national champion’s potential ability to avoid or delay major change. Its process was a direct counter to any reasonable suggestion that the reform would make Pemex would disappear from the sector altogether. Indeed, at the conclusion of the process, Pemex retained the rights to 85 percent of Mexico’s proved reserves and 20.6 billion boe. A series of requirements were placed upon the firm to enable it to keep these rights, but the intervening years have
proved that Pemex has the leverage to dictate how those terms and requirements are enacted and enforced.

One proposition being publicly circulated by the head of CNH is that a further reform of Pemex would include an initial public offering and minority stock offering, thereby inserting the firm into the market and raising capital but also requiring management practices and governance similar to other publicly traded companies. The focus on this idea has tended to be more on the fiscal side, on Pemex’s need to raise capital to support its development plans for the massive oil resources still under its control. Although a stock offering could be useful—examples abound from Colombia to Brazil regarding national oil companies that suffered many of the same afflictions as Pemex—it must be done in conjunction with the aforementioned three organizing principles of boosting profitability, efficiency, and competitiveness. To that end, a useful complement of any Pemex stock offering would be another version of Round Zero. Such a review and exercise would determine the parameters for the reserves and assets that Pemex is allowed to maintain in its portfolio. The process would dictate more precise terms for capital, technical capability, and timelines for executing and developing the assets it controls. If one result from the Peña Nieto reforms has been crystal clear, it is that the auction process is working and gaining in functionality and in terms of return on investment with regard to adding barrels of oil to Mexico’s reserves and potential barrels of oil to the market in Mexico and beyond.

A final important step toward Pemex’s autonomy would be to adjust the farmout process as stipulated in the reform. At first glance, this might seem counterintuitive, but it would be a significant step to provide Pemex with the ability to directly contract and form joint ventures and associations with other companies and market participants. This is the industry standard across the globe and has been a key element of the international oil industry for many years. For the first phase of the reform, it made sense to manage possible partnerships for Pemex through the auction process and under the management of CNH. However, as the oil market matures, and with the number of successful bid rounds and demonstration of transparency in the farmout process, an appropriate next
step would be to proceed to a phase whereby SENER, SCHP, CNH, and Pemex would develop a mechanism for transitioning the company to allow for direct association and partnering.

**Balancing Regulation, Oversight, and Investment**

As discussed in a recent report produced by the Mexican Hydrocarbons Association (AMEXHI), beyond the noted constraints on the country’s upstream competitiveness rendered by the rule of law and security issues, a barrier within the oil sector—albeit one that can be managed by stakeholders within the sector itself—is the inconsistency and duplication of regulatory processes. AMEXHI further noted that these issues are known and that SENER, CNH, and SHCP have recently worked on this issue and have tools that can contribute to competitiveness, but they must strive to offer greater commercial certainty with more competitive fiscal terms and greater access. Industry representatives contend that they continue to face and manage excessive bureaucracy; the existence of multiple regulators and regulatory overlap often means that partners must obtain a variety of permits and approvals, in some cases including almost identical requirements from different agencies. As the sector opening has progressed, and with the arrival of dozens of new participants in all segments of the oil and gas value chain in Mexico, the pressure on the nascent regulatory structure has greatly increased in terms of both its ability to assert its independence and specific roles and its drive to ensure that the level of so-called red tape and processes do not stifle investment.

As ASEA executive director Carlos De Regules has conceded, a newly organized regulatory body tends to overregulate at first given the enormity of the challenges and desire to properly dispense its duties. At the same time, he has argued for a framework for long-term regulatory certainty that improves social well-being and achieves the intended goal at the lowest possible social cost while minimizing unwanted side-effects. Specifically, he is interested in a model of risk-based regulation that provides an objective tool to strike an appropriate balance between risks and benefits. In Carlos’ estimation, such an approach requires two key mechanisms: (1) efforts to minimize inhibiting bureaucracy, such as expert reports and verifications by authorized third parties, and (2)
mechanisms to make accountability undiluted and unequivocal, such as self-declarations. These objectives are vital to the continued implementation of the reform’s restructured regulatory model and institutions in Mexico.

Lessons from Colombia highlight the need to strike the appropriate balance between attracting investment at auction, in concessions, and granting contracts, and facilitating actual project execution. Colombia was lauded for its major oil and gas overhaul for years but then quickly fell victim to its own success; projects and investments became constrained by severe regulatory, environmental, and institutional bottlenecks. These are early days in the Mexican market opening, but worrisome signs have begun to emerge as to similar constraints in the country. Indeed, the permitting process at the state level and the social and environmental liabilities with local communities must also be evaluated and addressed so as not to cause unneeded delays or interruptions in critical project development.

Availing themselves of Mexico’s OECD membership, the three primary energy regulatory bodies sought and developed a holistic assessment of the status of energy regulation in the postreform milieu. The 2017 report, Driving Performance of Mexico’s Energy Regulators, laid out clear recommendations for enhanced governance. Most dovetail nicely with the AMEXHI assessment. Specifically, the OECD called for the regulators to build more regular and formal relations with Congress to discuss activities and results, which in turn could support improved governance by making regulator operations more effective through increased flexibility in financial and human resource management, ultimately empowering all three regulators with fully autonomous and financially sustainable futures devoid of political interference. In addition, the OECD spelled out the need to create a one-stop shop for licensing and permits, a so-called ventanilla única (one-stop window) to alleviate some of the charges of excessive red tape.

With regard to reform’s investment goals, Mexico’s investment framework and five-year plans give signals to investors about the upcoming launches of rounds—information that in turn can generate both knowledge and certainty in the industry. Government and
industry understand that it is indispensable that the rounds must be frequent, high-quality, and competitive, and with efficient regulations based on transparency and reduced transaction costs. CNH has made strides to create a predictable auction process in which the varying opportunities—onshore, mature fields, shallow water, deepwater—are all scheduled consistently in terms of timing, bid qualification requirements, and fiscal and contractual terms.\textsuperscript{53} CNH chairman Juan Carlos Zepeda has spoken often of these challenges and is directing his agency to standardize the bidding process within the realm of what is feasible.\textsuperscript{54}

**Security Issues and Oil Theft**

Mexico’s broader security situation has been the subject of extensive analysis. The elements that comprise the perilous environment in many parts of the country will not all be considered here. But what does bear discussion and attention as part of any path to consolidating the reform measures is to understand the impact of the security challenges on the energy sector, particularly on the oil industry and Pemex. Indeed, oil theft from Pemex pipelines; money laundering by way of service stations; and, worst of all, provocative kidnappings of the company’s executives and service companies working with the state firm, are all on the rise.

According to a Reuters analysis based on reports and data obtained from the Mexican government, between 2011 and 2016 the number of unauthorized taps discovered on Mexico’s fuel lines nearly quintupled. Further data obtained from a report commissioned in 2017 by CNH indicated that between 2009 and 2016, there had been illegal pipeline taps roughly every 1.4 kilometers along Pemex’s approximately 14,000-kilometer pipeline network.\textsuperscript{55} The spike in fuel thefts and illegal trading, as well as kidnappings, presents serious questions as to whether Pemex is fully in charge of all its facilities across the nation. Indeed, many analysts indicate that the physical security and monitoring of pipelines belonging to Pemex are severely lacking. Pemex has taken steps to install systems and measures to detect declines in pressure in some oil product pipelines but the project is expected to take years to complete. Unofficial figures place thefts from the Pemex network at roughly $1 billion annually. Thefts from the Pemex network are not
new, but their increase and the strain they place on the already-taxed company are important. Security experts also point to these thefts as an important source of revenue for drug cartels, especially as the Mexican government continues to crack down on them. The illegal tapping has grown significantly in the areas where conflict with cartels is the most pervasive.56

Worse yet, the security situation and related corruption have exacerbated challenges and problems derived from years of poor upkeep and management at the Pemex refining system. Fatal accidents, including fires and explosions, have become almost commonplace. Despite the opportunity provided for Pemex by way of the reform and ability to create joint ventures and private partners, Pemex has found few takers on the refining and downstream side. Indeed, one executive from a global refining consulting firm indicated that “there is no incentive to invest in the Mexican refining system,” specifically citing “organized crime and corruption.” The aforementioned 2017 CNH report noted that blame can be assigned inside and outside the sector: “The problem is corruption, not just in security and judicial services, but also inside Pemex.”57

*Translating Benefits*

In selling the reform measures, the Peña Nieto administration and its political allies made a compelling case for the economic necessity of the reforms as well as their upside for the average Mexican citizen. The government persuasively argued that when it came to oil, the nation’s patrimony would remain just that: 100 percent owned by the Mexican people. Leaving aside the technicalities and the elements of oil contracts, regulatory models, and partnership modalities for Pemex, the government sought to ensure that citizens understood the benefits of the reform. Naturally, most of the attention was focused on lowering prices for consumers, but the creation of a modern, competitive market that would spur job creation and support Mexico’s broader macroeconomic goals also was one of the selling points.58

By passing the reform measures, the government set in motion the path to many of these objectives, which were supported by citizens through their votes for the Peña Nieto
administration and congressional leaders. However, for the average citizen the reform is not about providing the best petroleum contract to attract private investment or the most appropriate form of innovation and technology transfer. Instead, for the Mexican populace the reform means translating what has occurred to date, why it is important and relevant, and how it positively impacts the economy and workforce. For the broader society, these benefits must not only be delivered but also be fully comprehended.

To do so, the oil sector must do more than just highlight the number of blocks adjudicated, the number of firms participating, and the potential investment commitments. Even the hugely important news of major oil discoveries demand a more down-to-earth translation and messaging. Indeed, there must be a concerted effort across the government and industry to begin to share, both literally and figuratively, the benefits of the reform measures. What do the large amounts of monies committed by companies mean for employment? How is the government directing the signing bonuses gathered at auction? What about the Mexican Oil Fund? Has the importance of that mechanism for the average citizen been communicated? And beyond the fund, how will the government manage taxes and royalties from increased participation in the oil sector, particularly so that it benefits the majority and not only elites?

Beyond the need to strike the right balance between regulation and investment, a proper dialogue among the full range of relevant actors in the country must be held. Mexico clearly needs adequate dissemination and communication strategies for reaching society as a whole and reporting on the results. Communication efforts underscoring greater transparency regarding the reform measures, decisions, and actions being taken by the regulators, government, and Pemex are of utmost importance.

In the oil sector, perhaps nowhere is this improved communication strategy more feasible than in the gasoline market. The liberalization of the fuels market has seen an explosion of competition from international and Mexican private enterprises. More than 40 companies have entered the market. Mexican consumers now have choices, and can select where to purchase their fuel based on price, service, convenience, and other factors. For the average Mexican citizen, the market today is far more competitive. Unfortunately, the subsequent rise in gas prices in early 2017—the *gasolinazo*—and its impact on the population was an important lesson for the government. Many factors, most
prominently poor planning, supply bottlenecks, and infrastructure challenges, created a major crisis when the government began to remove subsidies from fuel prices and adjust the prices to the market. In particular, it provided ammunition to opponents of the reform who sought to highlight the woes of its implementation. But since that mishap, the market liberalization has proceeded apace. That the *gasolinazo* has been squarely placed in the rearview mirror is important, but its messaging and rollout lessons—not only for the fuels market but for all segments of the sector—are important to recall in future efforts to consolidate the reform.

As noted, CNH has made great strides to create a predictable upstream auction process with varying opportunities that are scheduled consistently in terms of timing, bid qualification requirements, and fiscal and contractual terms. This is important for generating results and communicating with industry. In the same way, convincing society of results is a process that requires patience while the results of the rounds unfold. Even though energy is a highly technical industry, for continuity’s sake it is essential to show society the benefits of the reform and see that predictable institutions, beyond sexennial plans, reduces uncertainty.

Finally, just as the Peña Nieto administration and its allies in Congress created and executed a public relations strategy to sell the reform and set the country on its new energy path, the effort must be continued but also deepened to convey to both citizens and incoming politicians the depth of what has been achieved. To fully consolidate the reform beyond technical and industry-specific challenges, its benefits must be translated to and understood by the wider population; the results must be tangible and understandable. To continue to support it, they must feel it, if not see its benefits in their daily lives.

**Postscript**

Borrowing from former U.S. secretary of state Dean Acheson, we should note all those involved can rightfully claim to be present at the creation of a new energy chapter for Mexico. But another figure from that bygone era, British prime minister Winston Churchill,
is probably a better reference for where we stand today at this critical juncture for energy reform in Mexico. After a momentous British victory in North Africa over the Germans under General Erwin Rommel, he famously implored his countrymen that it was not the beginning of the end, but merely the end of the beginning.

Mexico will hold elections on July 1, 2018. As with all presidential elections of the past two decades, Mexico’s democracy will be put to a rigorous test. As the campaigns officially launched at the end of March, an old familiar face tops the polls. Of course, this is not just another candidate or another election in Mexico. For almost as long as the energy reform debate has unfolded in Mexico, Andrés Manuel López Obrador has been the face of the opposition. He has led the resistance to the opening of Mexico’s energy sector in two failed presidential bids as the PRD candidate, not to mention greatly succeeding in derailing the Calderón energy reform efforts in 2008. This year, his ascendant MORENA party has again placed opposition to the reform squarely in the middle of its economic agenda and policy platform. Indeed, his comments to the press as to his desire to “review the oil contracts” and halt upcoming auctions have sent what has been called a chilling effect on the interest and possible levels of investment.

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