Oil and Gas, Natural Resources, and Energy Journal

Volume 6 | Number 4

May 2021

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ONE J

Oil and Gas, Natural Resources, and Energy Journal

VOLUME 6 NUMBER 4

PETRÓLEOS MEXICANOS: A VICTIM OF MEXICAN POLITICS

CARLOS COHEN-LEON*

Introduction

Historically, Pemex has been catastrophically managed and neglected financially, leading to declining reserves and crippling debt. Current managers lack petroleum expertise and are loyal to President López Obrador ("AMLO"). Nevertheless, AMLO has made Pemex "the cornerstone of his presidency and his economic policy."[1] A goal of AMLO's administration is to save Pemex and ensure it becomes profitable as . "Pemex means so much to AMLO . . . because he is from a petroleum state and came of age in the 1960s, when Pemex was very powerful."[2]

Unfortunately, AMLO's Pemex strategy repeats prior mistakes that will either maintain Pemex's current situation, or hasten its decline. Continuing its current path is a guaranteed death sentence. Although one could argue letting Pemex go bankrupt is the best option, due to the nature of the Mexican political system and its relationship to Pemex, its collapse might lead to an overall economic disaster which could greatly disrupt Mexican

* LLB, Universidad del Valle de Mexico; JD University of Melbourne. Special thanks to Professor Owen L. Anderson, Senior Fellow at University of Melbourne, for his review and comments on this essay. This paper was prepared as part of a writing seminar under the supervision of Professor Owen L Anderson, visiting faculty at the University of Melbourne. The author sincerely thanks Professor Anderson for his guidance and thoughtful edits.

1. Jude Webber & Michael Stott, Mexico: López Obrador Makes a Big Bet On Oil, The Financial Times (Oct. 3, 2019), https://www.ft.com/content/d5c3c1c0-e432-11e9-b112-9624ec9edc59.

2. Ibid.

politics in unpredictable ways. This paper examines Pemex's current situation and critically analyzes AMLO's so-called "rescue plan."

Background

From 1938 to 2014, Pemex monopolized the petroleum sector in Mexico as the only E&P operator. Although, it did prove capable of managing existing fields. Pemex managed to develop the Cantarell Field—discovered by a fisherman complaining of oil slicks. Due to Pemex's inability to replace, let alone increase its reserves, Mexico never saw the promised wealth from its discovery.

Under the 2014 reforms, Pemex retained exclusive rights over significant conventional resources in "Round Zero."[3] Pemex retained all currently producing fields, and approximately two thirds of the exploratory work areas it was engaged in before the reform. The balance, both onshore and offshore, was placed under the administration of the National Hydrocarbons Commission ("CNH"), a newly created regulatory agency authorized to offer prospects in competitive bid rounds.[4] Although Pemex gained greater independence from the Mexican government as a state-owned productive enterprise, it would have to compete or partner with IOCs through public tenders for rights to exploit deep-water and other petroleum resources.

The 2014 reforms further provided for CNH to administer farmout bid rounds of Pemex's retained prospects to IOCs, with the selection of qualified parties to be determined on a case-by-case basis through a CNH bid process.[5] Under this farmout regime, Pemex secured relief from an onerous tax burden by "migrating" its farmed-out holdings to a new contract and fiscal regime that matched that of competing IOCs.[6] Admittedly, the farmout reforms were designed to force Pemex to farmout under a highly regulated tender system that did not allow Pemex to control its process or partners. While this tender system was put in place to address

3. See generally Owen L Anderson & Jay J Park, *South of the Border, Down Mexico Way: The Past, Present, and Future of Petroleum Development in Mexico Part I* 56(2) National Resources Journal 257 (2016); Owen L Anderson & Jay J Park, *South of the Border, Down Mexico Way: The Past, Present, and Future of Petroleum Development in Mexico – Part II*20(1) Rocky Mountain Mineral Law Institute 20 (2016).

4. Freshfiels Bruckhaus Deringer, *What You Need to Know About Mexico's Energy Reform* (Oct. 6, 2014).

5. *Ley de hidrocarburos, art 6, 11, 13, 23* (Mexico) (Aug.11, 2014).

6. Freshfiels Bruckhaus Deringer, *What You Need to Know About Mexico's Energy Reform* (Oct. 6, 2014)

corruption concerns, there was too much government oversight and bureaucracy.

The AMLO Strategy: A Circular Firing Squad

Rather than fix deficiencies, AMLO suspended all future bid rounds, including farmouts.[7] Although AMLO pledged to honor existing contracts with IOCs, he appears intent on trying to terminate existing contracts. With no planned bid rounds, he is relying on Pemex for future discoveries and upstream development.

The Ministry of Finance and Public Credit has set a target oil-production increase of 12.9% in 2020. While Pemex is offering new integrated service contracts to support development, it will retain operatorship, and contractors will receive a cash fee based on production.[8] Thus, risk of failure will be on Pemex and indirectly on the government. Meeting this ambitious target is impossible. While production increased modestly from January to March 2020, in April, it declined to below that of February.

AMLO has publicly stated that he prefers people who are 90% honest and have 10% experience.[9] Rather than appointing a qualified professional geologist or petroleum engineer to run Pemex, AMLO appointed Octavio Romero Oropeza, an agronomist with no petroleum-sector experience; and no relevant management experience. His only apparent qualification is his loyalty to AMLO.[10] AMLO's Secretary of Energy (SENER) director is Rocio Nahle who, when asked if there would be new bid rounds, said, she "doubt[s] there will be good results." Rocio Nahle has also refused to reduce Mexico's production to cope with lower demand and prices due to the impact of COVID-19.[11] Further, she has stated that six refineries will be

7. *Id*.

8. GlobalData Energy, *Mexico upstream fiscal and regulatory guide, Offshore Technology* (Jan. 17, 2020), https://www.offshore-technology.com/comment/mexico-upstream-fiscal-regulatory-guide/.

9. Alejandro Canchola & Diego Morales, *Los funcionarios de mi administración deben tener 90% honestidad y 10% experiencia: AMLO, El Universal* (Nov. 28, 2019), https://www.eluniversal.com.mx/nacion/los-servidores-de-mi-administracion-deben-tener-90-honestidad-y-10-experiencia-amlo.

10. Steven Mufson, *The Energy 202: AMLO Seeks to Rejuvenate Mexico's Pemex, The Washington Post* (Aug. 01, 2018), https://www.washingtonpost.com/news/powerpost/paloma/the-energy-202/2018/08/01/the-energy-202-amlo-seeks-to-rejuvenate-mexico-s-pemex/5b605ad41b326b0207955e6b/.

11. See Id., see also Miguel Gutiérrez and Dave Graham, *Mexico to Sit Out Extension of OPEC+ Oil Output Cuts, Reuters* June 7, 2020), https://www.reuters.com/article/us-global-oil-mexico-opec/mexico-to-sit-out-extension-of-opec-oil-output-cuts-idUSKBN23D0TC.

refurbished in seven months—a feat considered impossible by industry experts.[12] According to Wilbur Matthews, founder of Vaquero Global Investment LP, "[a]t USD40.00 a barrel things have to be run perfectly, and Pemex is not run perfectly."[13]

In all fairness, poor petroleum policy and management decisions are not new. During the Fox and Calderon administrations, 2000 to 2012, the goal was to increase oil production to in turn, increase profitability. The result, in both administrations, was a steady decline in production, and therefore, in profits. With the oil-price drops from 2014 to2017, Pemex was forced to reduce its capital spending further. Because of that, its reserves and production plummeted as its debt skyrocketed.[14] Today, Pemex is the world's most indebted company. From 2012 to 2019, Pemex debt increased from USD59.79 billion to USD105 billion.[15] In 2019 alone, Pemex suffered losses worth USD18.3 billion.[16] Furthermore, Pemex amassed nearly USD24 billion in losses during the first quarter of 2020.[17] Pemex has asked its contractors to wait until next year for payment of services rendered of USD115 Million.[18] Adding insult to injury, an audit found irregularities in 13.3% of pension payments. In some cases, it was unclear if the beneficiaries were still alive.[19] Pension liabilities account for USD77.3

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12. Dulce Olvera, *Es viable revivir refinerías, dicen expertos, pero no están al precio y en el tiempo que calcula Nahle, Sin Embargo MX* (July 18, 2018), https://www.sinembargo.mx/18-07-2018/3443289.

13. Amy Stillman, *Mexico's Debt-Laden Oil Giant Is Asking Contractors for IOUs, Bloomberg* (July 8, 2020), https://ca.finance.yahoo.com/amphtml/news/mexico-debt-laden-oil-giant-215608415.html?soc_src=social-sh&soc_trk=tw&__twitter_impression=true.

14. Benigna C. Leiss & Adrian Duhalt, *Laying the Groundwork for the Strengthening of Pemex,* Rice University Baker Institute for Public Policy (July 2019)..

15. Securities and Exchange Commission, *Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, Pemex* (2019), https://www.pemex.com/ri/reguladores/ReportesAnuales_SEC/20-F%202019%20PDF.pdf.

16. David Alire García & Ana Isabel Martínez, *Mexico's State-Run Pemex Posts Steep 2019 Loss in Blow to President's Revival Plan, Reuters* (Feb. 28, 2020), https://www.reuters.com/article/us-pemex-results/mexicos-pemex-posts-massive-2019-loss-in-bitter-blow-to-president-idUSKCN20L2OG.

17. David Alire García & Ana Isabel Martínez, *Mexico's Pemex Bleeds More Red Ink in Nearly $24 Billion Quarterly Loss, Reuters* (May 1, 2020), https://www.reuters.com/article/us-pemex-results/mexicos-pemex-bleeds-more-red-ink-in-nearly-24-billion-quarterly-loss-idUSKBN22C2QN.

18. Ibid, 14.

19. Stefanie Eschenbacher, *Unsustainable: Mexico's Pemex Buckling Under Crushing Pension Debt, Reuters* (Mar. 06,2020), https://www.reuters.com/article/us-pemex-pension/unsustainable-mexicos-pemex-buckling-under-crushing-pension-debt-idUSKBN20T0K1.

billion above the USD105 billion debt and the USD115 million owed to suppliers.[20] The principal cause of increasing debt, and the declining production and reserves, is the transfer by Pemex of far too much revenue to the government, leaving Pemex with few funds to invest.[21]

Rather than address these problems, AMLO established one central goal for Pemex: achieve absolute energy independence. This was to be accomplished with a two-pronged strategy: First, increase exploration and production by increasing Pemex's budget by MXN75 billion starting in 2019.[22] Second, rehabilitate the aforementioned six Mexican refineries[23] and build a new one in the port of Dos Bocas in Tabasco. At a cost of USD8 billion, it is aimed at eliminating, or at least reducing, imports of refined petroleum products.[24]. This strategy is born from the fact that Mexico imported a record 713,000 BPD of gasoline in 2019, of which 530,000 were by Pemex.[25] However, this investment places the "cart before the horse" as Pemex's reserves are low, and rapidly declining, as discussed below.

Ironically, this refinery might exacerbate the frailty of Pemex. One of three AMLO's "mega projects"[26], it's related to another—the Maya Train—a 1,500 km railway system transporting passengers and cargo throughout Mexico's Southeastern region, including products produced by the Dos Bocas refinery.[27] However, Pemex doesn't produce enough diesel, the

20. Id.

21. Ibid, 14.

22. Justin Villamil and Amy Stillman, *Pemex Feels Incoming President's Heat as Investors Dump Bonds, Bloomberg* (Nov. 22, 2018), https://www.bloomberg.com/news/articles/2018-11-21/mexico-s-oil-giant-pemex-feels-amlo-heat-as-investors-dump-bonds.

23. Jorge Monroy and Karol García, *Rehabilitación de refinerías quedará en el 2020 (*Refinery Rehabilitation to Conclude by 2020), El Economista (Dec. 10, 2019), https://www.eleconomista.com.mx/empresas/Rehabilitacion-de-refinerias-quedara-en-el-2020-20191210-0001.html.

24. *The Dos Bocas Refinery Project,* NS Energy, https://www.nsenergybusiness.com/projects/dos-bocas-refinery-project/.

25. Efraín Mariano, *México rompe récord de importación de gasolina (*Mexico Sets New Record on Gasoline Imports), Energy & Commerce (Feb. 11, 2020), https://energyandcommerce.com.mx/mexico-rompe-record-de-importacion-de-gasolina/.

26. AMLO's three "mega projects" are *i)* the Dos Bocas Refinery, *ii)* the Maya Train, and *iii)* the Santa Lucía International Airport, which replaces the New International Airport being built in Texcoco.

27. Yngrid Fuentes, *Tren Maya: así es el ambicioso proyecto que propone AMLO y tiene un costo de miles de millones de dólares para México* (Maya Train: This Is the

power source for the train selected over electricity to save on operating costs. And, even when Dos Bocas is operational and existing refineries are refurbished, Mexico will still lack the ability to produce enough diesel to meet demand.[28] Therefore, Mexico will still be forced to import diesel regardless of these massive investments, which will likely erase the 6.8% savings over electric-train operating costs.[29] The situation is worsened by the fact that as of August 2020, Pemex ceased refining premium gasoline. While production of premium gasoline in Mexico amounted to only 3% of refined products, it represented income worth MXN64.1 billion.[30] Thus, Pemex will have to import over USD9.3 billion worth of premium gasoline, which, when put in perspective, equals MXN0.96 of every MXN1.00 spent on total fuel imports.[31]

Recognizing Pemex's lack of technology and knowhow, AMLO has hinted that future oil investment will be in shallow waters and onshore areas. This will limit prospective development to an estimated 37,405 MMBOE of 3P reserves, which might be attractive to small and nimble private IOCs but are unlikely to arrest Mexico's declining production and reserves. This effectively eliminates access to potentially huge deep-water reserves and the revenue gains that may result from developing deep-water and unconventional resources.[32]

Pemex generally lacks strategy for replacing its reserves, which are essential to an oil company's future. If an oil company is not reinvesting in its core asset by exploring for or by acquiring new reserves, it cannot remain viable.[33] The lack of technical capacity is perhaps the most crucial factor imperiling Pemex, which has forced Pemex to spend its limited funds

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Ambitious Project Proposed by AMLO, and has a Cost of Billions of Dollars for Mexico) BBC News (Nov. 15,2018), https://www.bbc.com/mundo/noticias-america-latina-45254080.

28. Nadia Juárez, *Tren Maya será de diesel, pero ni con Dos Bocas se cubriría la demanda: Sectur (*Maya Train Will be Diesel, but Not Even Dos Bocas Can Cover Demand) Grupo Formula (June. 9, 2020), https://www.radioformula.com.mx/noticias/20200609/tren-maya-funcionara-con-diesel-refineria-dos-bocas-tabasco-sectur/.

29. Noé Cruz Serrano, *Tren Maya usará diesel; ganó a opción eléctrica* (Maya Train Will Use Diesel; Beats Electric Alternative) El Universal (June, 9 2020), https://www.eluniversal.com.mx/cartera/tren-maya-usara-diesel-gano-opcion-electrica.

30. José Virgilio Ordaz, *Pemex dejará de producer gasolina premium (*Pemex to Stop Production of Premium Gasoline) Automóvil Panamericano (Feb. 20, 2020), https://www.automovilonline.com.mx/noticias/pemex-dejara-de-producir-gasolina-premium/.

31. Id.

32. Id. at 9.

33. Id. at 13.

on the existing Cantarell and Ku Maloob Zaap basins to prevent their decline. While increasing production from these basins provides a stopgap measure for Pemex's declining reserves, in the not-too-distant future, Pemex needs to find massive new reserves. These are available in Mexico in deep water or in shale and tight sands basins. Both require technical expertise and capital that Pemex does not currently have, further reflecting Mexican-government short-sightedness.

Because Pemex is hemorrhaging money by importing fuels, paying maturing debt, and suffering a high tax burden, it has insufficient funds to increase production; and insufficient expertise and technical ability to find and develop new reserves. One of the most serious deficiencies is Pemex's lack of deep-water drilling. Deep water is the most prospective remaining area for large discoveries in Mexico. Pemex was forced to slash USD1.8 billion from its exploration and production budget this year.[34] Thus, AMLO's energy independence strategy is akin to a circular firing squad: lack of competitiveness, due to lack of technical capacity, due to lack of funding, due to lack of revenues, due to decreasing production, due to a lack of competitiveness and technical capacity. Pemex's situation is worsened by the fact that its gasoline sales peaked in December 2019, declined significantly in January, and due to the COVID-19 pandemic, fell off the cliff (about 48%) in March and April 2020.[35]

The emphasis on production from existing assets results in larger expenditures per unit of production, leading to greater debt.[36] To put this into context, in 2018, Equinor, the Norwegian NOC, 34 years younger than Pemex, had a reserve-regeneration ratio of 213% compared to Pemex's 34.7%, which was increased from 17.5% in 2017.[37] To compound this problem, AMLO, as discussed above, refuses to curtail production as Pemex continues operating unprofitable fields and refining facilities. All

34. Id. 15.

35. *Ventas de gasolina de Pemex caen 48% en abril (*Pemex Gasoline Sales Fall by 48% in April) LatinUs (May 25, 2020) https://latinus.us/2020/05/25/ventas-gasolina-pemex-caen-abril/.

36. Ibid, 15.

37. *Equinor Fourth Quarter 2018 and Year End Results, Equinor ASA* (Feb. 6, 2019), https://www.equinor.com/en/news/fourth-quarter-2018-results-and-capital-markets-update-2019.html; Edgard Garrido, Pemex's Oil Reserve Replacement Rate Jumps In 2019 (May 12, 2020), https://www.reuters.com/article/us-mexico-pemex/pemexs-oil-reserves-replacement-rate-jumps-in-2019-idUSKBN22O0BY; *Oil Reserve Replacement Rate for Mexico's Pemex Inched Up in 2017* (May 10, 2018), https://www.reuters.com/article/mexico-pemex-reserves/oil-reserves-replacement-rate-for-mexicos-pemex-inched-up-in-2017-idUSL1N1SG2NC.

while still taking revenues from Pemex to cover the government's budget, leaving Pemex with insufficient funds to search for additional reserves.[38] While AMLO has modestly reduced Pemex's fiscal burden to the government from 65% to 54%, he has mandated that Pemex invest in refining upgrades and in onshore and shallow-water exploration, which are unlikely to bear fruit.

Although private oil companies adjust their budgets in line with oil prices, and may slow exploration, they never stop researching E&P opportunities. Because of its fiscal burdens, Pemex has failed to explore for new reserves, has poorly developed many of its proven reserves, and has comparatively high production costs and lower profits. Moreover, Pemex is a bloated bureaucracy. In 2018, Pemex had nearly 125,000 employees, produced an average of 1.8 million barrels of oil per day, and had about 7.7 billion barrels of proven reserves. In contrast, in 2018, ExxonMobil had about 70,000 employees, produced about 2.3 million barrels per day, and had about 24 billion barrels of proven reserves. Pemex produces about fourteen barrels of oil per day per employee, compared to ExxonMobil's thirty-three barrels per day per employee. At Pemex's current rate of production, it will run out of oil in just over four years without reserve replacement, while ExxonMobil would not run out for over ten years if it ceased exploration. As previously mentioned, during the Zedillo, Fox, and Calderon administrations, Pemex emphasized production while abandoning reserve regeneration.[39] And yet, AMLO resists allowing deep-water exploration by Pemex-private partnerships.[40]

The petroleum industry faces price volatility, geologic and surface risks, and high capital requirements for E&P. Companies develop project portfolios with long-term goals allowing reserve replacement, meeting production goals, and generating financial returns. IOCs tend to be diverse enough to provide some protection against market volatility. Importantly, diversification requires E&P activities in multiple resource plays in various

38. Bill Dahl, *Op-Ed – The MexicOIL – Examining the Unraveling of Mexico's National Oil Company – Pemex, The Mazatlan Post* (May 10, 2020), https://themazatlanpost.com/2020/05/10/op-ed-the-mexicoil-examining-the-unraveling-of-mexicos-national-oil-company-pemex/.

39. David Ibarra, *El desmantelamiento de Pemex*, 9, 10-15 (The Dismantling of Pemex) Economia UNAM (2012) 5(13).

40. Bill Dahl, *Op-Ed – The MexicOIL – Examining the Unraveling of Mexico's National Oil Company – Pemex* (10 May 2020) The Mazatlan Post https://themazatlanpost.com/2020/05/10/op-ed-the-mexicoil-examining-the-unraveling-of-mexicos-national-oil-company-pemex/.

locations. To facilitate this, IOCs partner up to share and reduce risk and to share knowhow.[41] Therefore, IOCs rarely have full project ownership. In 2018, ExxonMobil published a list of 27 conventional and unconventional petroleum projects across the globe from 2013 - 2019. They only held a 100% stake in three petroleum projects and a working interest ranging from 9% to 62% in the rest.[42]

Historically, Mexican presidents think of needed revenues only for their six years in office. Throughout history, Mexican politicians used Pemex to promise nationwide riches, and as a source of revenues to support social welfare programs designed to garner the votes needed to remain in power. However, rather than laying 'golden eggs,' the 'chickens have come home to roost.' Since 2004, Pemex production consistently declined, despite historically high oil prices during much of this period. As existing fields mature, maintaining production rates becomes more difficult and expensive. As it stands, Pemex will have great difficulty remaining afloat. Its efforts to remain above water will be further taxed by the capital needed to finance a USD8 billion refinery, and the increased need for imported gasolines and diesel fuels. AMLO has been rightly criticized for launching a campaign of 'fiscal terrorism'[43] to finance Pemex, and Pemex has increased its debt to meet its revenue obligations to the government. This 'strategy' is both unviable and irresponsible. This year, Pemex had to issue USD5 billion in in bonds with 11-40 year maturity dates to refinance maturing debt,[44] with USD30 billion due in 2024.[45] Pemex's current debt rating is junk status.[46]

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41. Id. at 7-8.

42. Securities and Exchange Commission, *Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934* (2019) ExxonMobil Corporation <https://ir.exxonmobil.com/static-files/cbe9b88a-c23b-43e4-b059-8aa9405596b2>

43. Jorge Monroy, *IP iniciará campaña vs. terrorismo fiscal, prevé AMLO* [PI Will Begin Campaign vs Fiscal Terrorism, AMLO foresees] (17 October 2019) El Economista https://www.eleconomista.com.mx/sectorfinanciero/IP-iniciara-campana-vs.-terrorismo-fiscal-preve-AMLO-20191017-0097.html; Forbes Staff, Arturo Herrera, *Impuestos a plataformas digitales, una cuestión de equidad: Arturo Herrera* [Taxes on Digital Platforms a Matter of Equality: Arturo Herrera], Forbes (June 23, 2020) https://www.forbes.com.mx/economia-impuestos-a-plataformas-digitales-una-cuestion-de-equidad-arturo-herrera/.

44. Anthony Esposito, *UPDATE 1-Mexico's Pemex Issues $5 Bln in Bonds to Refinance Debt* (January 21, 2020) CNBC, https://www.cnbc.com/2020/01/21/reuters-america-update-1-mexicos-pemex-issues-5-bln-in-bonds-to-refinance-debt.html.

45. Stefanie Eschenbacher, *The Numbers Don't Add Up at Mexico's Pemex as Oil Prices Crash, Reuters,* (March 24, 2020) https://www.reuters.com/article/us-mexico-pemex-debt/the-numbers-dont-add-up-at-mexicos-pemex-as-oil-prices-crash-idUSKBN21A2P3.

Corruption and 'Huachicol'

While AMLO has reduced Pemex's fiscal burden, Pemex still must cope with additional Mexican burdens: corruption and Huachicol.[47] To illustrate, Emilio Lozoya, the former head of Pemex, was arrested in February on corruption and tax-fraud charges stemming from Pemex's purchase of a fertilizer plant at a highly inflated price. In exchange for immunity, he promised to implicate many prominent politicians in the scandal, including former President Enrique Peña Nieto. The charge arises from a much larger corruption probe into the infamous 'Car Wash' (*Lava Jato*) scandal that was uncovered in Brazil, and has spread throughout Latin America. It involved a bid-rigging cartel of construction contractors that paid bribes and kickbacks to government officials, including officials of government-owned enterprises.[48] Mexico, tied with Mayanmar, ranks 103rd of 175 on TI Corruption Perceptions Index. On the TI Bribe Payers Index, Mexico ranks 26th out of 28, just above China and Russia.[49]

Furthermore, from December 27, 2018 to December 31, 2019, Mexican authorities seized 779 thousand liters of stolen gasoline. Yet, according to statements made by AMLO, 954,000 liters are stolen every twenty-four hours.[50] With this rate of loss, it is impossible for Pemex to maintain its fiscal obligations and have enough resources left to be competitive.

The overall situation in Mexico translates into a concern for IOC's if Mexico eventually reopens to foreign investment, especially for onshore operations in the northeastern Mexico shale regions. Investors must be mindful of the security risk to their employees and operations.[51]

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46. *Mexico and Pemex Credit Ratings Cut by Moody's, and Fitch, Latin Finance* (April 20, 2020) https://www.latinfinance.com/daily-briefs/2020/4/20/mexico-and-pemex-credit-ratings-cut-by-moodys-and-fitch.

47. Huachicol is the name colloquially given to the theft of gasoline by crime syndicates in Mexico.

48. *Brazil Corruption Scandals: All You Need to Know, BBC News* (April 8, 2018) https://www.bbc.com/news/world-latin-america-35810578.

49. Owen L. Anderson and J. Jay Park, *South of the Border, Down Mexico Way: The Past, Present, and Future of Petroleum Development in Mexico – Part II* 61 Rocky Mtn. Min. L. Inst. 20-1, 20 (2015)., 20.

50. Mario Álvarez, *Aseguran 779 mil litros de huachicol robados en 2019* [779 thousand liters of stolen gasoline were secured in 2019], El Sol de Mexico (February 13, 2020) https://www.elsoldemexico.com.mx/finanzas/aseguran-779-mil-litros-de-huachicol-robados-en-2019-4829214.html.

51. Anderson, supra note 49. Owen L Anderson, 'South of the Border, Down Mexico Way: The Past, Present, and Future of Petroleum Development in Mexico – Part II' (2016) 20(1) *Rocky Mountain Mineral Law Institute*, 20.

Evaluating the AMLO Strategy and Prophesying the Future

AMLO presents Pemex as a 'cure-all if it had only been managed properly by past administrations. Which we will do…'. To ensure efficient wealth enhancement, savings, and an equitable distribution system, a petroleum-rich country must *i)* maintain comparatively low oil and gas production exploration and development costs, *ii)* a high level of economic and political development, and *iii)* a political system that does not pressure the government to spend the revenues obtained from natural resources to alleviate social, political, and economic problems.[52] The Mexican government failed in achieving *all* of them due to, among other things, systematic corruption. According to Duncan Wood, head of the Mexico Institute at the Wilson Center:

> What he's (AMLO's) doing is taking scarce resources from elsewhere in the budget and plunging the money into Pemex desperately hoping to boost its production and make it the incubator of growth… It's a very strange idea that petroleum, the archetypal 20th century commodity, can drive growth in a 21st-century economy.[53]

In review, AMLO presented ideas appearing to help Pemex, but in the end, did not. The refurbishment of the existing refineries means that there is an acknowledgment of the derelict state of the Mexican oil industry's infrastructure, which appears to justify the rehabilitation of existing refineries and the construction of the Dos Bocas refinery. However, the horcrux is in the details. The goal of these projects is energy independence. Because production is declining at an alarming rate, no amount of increased refinery capacity will correct declining feedstocks. In other words, even with the increased refining capacity, Mexico will still not be able to satisfy local gasoline and other refined-products demand. Especially since Mexico will import all premium-grade gasoline and some diesel. In other words, Pemex will continue to export cheap crude and import expensive gasoline. More funding will mean little if Pemex does not have the technical ability to access deep-water reservoirs to regenerate reserves. Without oil to refine, the refinery investment proves useless.

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52. César Saíd Rosales Torres, 'Norway's Oil and Gas Sector: How Did the Country Avoid the Resource Curse?' (2015) 1(1) *Revista Tempo do Mundo* 93, 97.

53. Jude Webber and Michael Stott, *Mexico: López Obrador Makes a Big Bet On Oil*, The Financial Times (October 3, 2019) https://www.ft.com/content/d5c3c1c0-e432-11e9-b112-9624ec9edc59.

Additionally, unless stringent actions on combating the well-established drug cartels, which have now diversified into highly profitable Huachicol, any gains made from increased production will be mooted. Cartel presence will discourage Pemex and any future IOC investment in onshore and shallow-water areas. Even deep-water facilities, evidenced by experience in Nigeria, are not shielded from criminal activity.[54] If anything, AMLO has demonstrated weakness in setting and following effective and efficient policies to curb the power of the criminal cartels. His campaign was based on the premise of 'hugs, not bullets'.[55] In fact, 2020 is projected to be Mexico's 'most violent in history'.[56] In AMLO's first eighteen months, the murder rate was 55% higher than Enrique Pena Nieto's first eighteen months , and double that of Felipe Calderon.[57] Insecurity and uncertainty drive away investment.

As discussed above, there is little to no chance that additional licensing rounds or farmout auctions will be conducted in 2021. Indeed, AMLO has signaled that no new rounds will be conducted in the foreseeable future, and existing contracts may risk termination. Therefore, Pemex is at a standstill regarding its ability to partner with IOCs to generate revenue from carried interests. Meaning that the burden on Pemex, in net terms, is unchanged and may even be worse. At least in terms of scale. As a practical matter, for example, 54% of USD10 million is more burdensome than 65% of USD100 million. To reduce its debt, let alone remain afloat, Pemex must be allowed

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54. Offshore Staff, *Nigeria FPSO Under Attack from Pirates, Offshore Magazine* (July 2, 2020) https://www.offshore-mag.com/rigs-vessels/article/14178897/offshore-nigeria-fpso-under-attack-from-pirates#:~:text=LONDON%20%E2%80%93%20A%20group%20of%20unknown,been%20kidnapped%20from%20the%20vessel.

55. Linnea Sandin and Gladys McCormick, '*Abrazos no Balazos'—Evaluating AMLO's Security Initiatives* (13 December 2019) Center for Strategic and International Studies <https://www.csis.org/analysis/abrazos-no-balazos—evaluating-amlos-security-initiatives>

56. Arturo Ángel, *Nuevo récord de violencia: primer semestre de 2020 dejó 17 mil 982 asesinatos; violencia subió en 11 estados* [New Violence Record: First Semester of 2020 Left 17,982 Murders; Violence Increased in 11 States] (21 July 2020) Animal Político <https://www.animalpolitico.com/2020/07/record-violencia-semestre-2020-asesinatos/>; Forbes Staff, *Homicidios en México alcanzarían nuevo récord en 2020 pese al confinamiento, prevé gobierno* [Government Projects Homicides in Mexico Will Reach New Record in 2020 Despite Confinement] (02 September 2020) Forbes <https://www.forbes.com.mx/noticias-homicidios-mexico-nuevo-record-2020-pese-confinamiento-preve-gobierno/>

57. Arturo Ángel, *18 meses con AMLO: han asesinado a más de 5,800 mujeres y 1,800 menores* [18 Months With AMLO: More than 5,800 Women and 1,800 Minors Have Been Murdered], Animal Político (June 22, 2020) https://www.animalpolitico.com/2020/06/18-meses-amlo-muertos-asesinados-mujeres-menores/.

to produce more oil, but it first must find it. Unfortunately, Pemex lacks the capital, and technical capacity to do so efficiently while simultaneously being denied the one possibility it has to generate revenue, increase reserves, and gain needed technological knowhow, partnering with IOCs who have the capital and technological knowhow. Something especially critical when oil prices are low as IOCs can likely conduct exploration and production at a lower cost.

The Peña Nieto administration opening the oil and gas sector provided Pemex with the opportunity to share the risk of its project portfolio with IOCs with sufficient capital and technical expertise. Round Zero in 2014 was a step in that direction. Pemex was awarded nearly all the prospects that it requested.[58] The reforms anticipated Pemex would farmout many of them. In 2015, other prospect areas were to be offered by the government in bid rounds where Pemex and IOCs could bid. They brought substantial investment commitments, but exploration and development take time, and is slowed when prices are low and IOCs are coping with a dangerous pandemic. Even in the best of circumstances, five years is not sufficient time to bring exploration prospects to full-field development and production, especially for Mexico's deep-water prospects. Furthermore, Mexico's energy investment climate has been adversely affected by regulatory changes adopted by AMLO's administration. Clear and consistent policy would send a strong signal to private investors who are closely watching for further statements regarding Pemex farmouts, and the outcome of the prolonged Talos-Pemex negotiation regarding unitization of the Zama reserves discovered by Talos in a reservoir that overlaps a Pemex block.[59] AMLO cited this and other delays, which were partly the fault of the government, as grounds for reversing the reforms.

As Pemex begins to default on debt payments and renegotiates debt to keep afloat, its long-term viability is in serious jeopardy. Today, Pemex has cancelled most of its supplier contracts and has considerable liabilities beyond its traditional debt. Nevertheless, given the dependent relationship on 'PetroPesos' for federal budgets, and because of the nationalism politics, Pemex will not be allowed to disappear. Quite simply, Pemex is a 'sacred cow' that is 'too big to fail'.

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58. SENER, *Ronda cero y migracion de contratos de Pemex* [Round zero and Pemex Migration Contracts] (December 17, 2015) Government of Mexico https://www.gob.mx/cms/uploads/attachment/file/55586/Documento_WEB_Ronda_CeroSSH.pdf.

59. *Recent Trends in Mexico's Upstream Sector, Kirkland & Ellis* (June, 16 2020) https://www.kirkland.com/publications/blog-post/2020/06/mexico-upstream-sector.

To wind up or transform Pemex requires progressive fiscal reform, and increases in upstream exploration and development investment. Although Mexico has a proven ability to attract investment, AMLO's suspension of the reforms, the threat to terminate existing petroleum investment contracts; and the cancellation of the new Mexico City airport[60] and the Constellation Brands brewery which was 70% completed, justified by illegitimate polls,[61] sends a message of Mexico's reliability to private investors.

Alternatives and Conclusion

In supporting the 2014 energy reforms, President Peña Nieto promised too much, too soon. Coupled with accusations of scandal, the voters grew impatient and elected AMLO. Unfortunately, AMLO's energy policy returns to the failed practices of the past. Is there a real solution? Probably not during the remainder of AMLO's term unless he reverses course—an unlikely prospect.

The easiest solution, which would allow AMLO to save face, would be for Pemex to manage oil and gas resources similarly to SONANGOL, the Angolan NOC. Under this model, Pemex would hold bid rounds, awarding PSCs to IOCs, retaining a carried interest through exploration. As Pemex rebuilds capital, it could transition to operate more like Norway's Petoro, managing the state's direct financial interest in petroleum investments by fully partnering with IOCs.

Alternatively, or in addition to the above model, Pemex could strive to become more like Equinor. Under this approach, CNH would continue to hold bid rounds, and Pemex would compete or partner with IOCs. Eventually, like Equinor, Pemex could become partially privatized, ensuring transparency and operational efficiency. It could begin conducting petroleum operations outside Mexico to spread its risk of failure. Under this approach, Pemex would become a competitive IOC, improving its risk profile 'by not putting all of its eggs in a Mexico-only basket.' Unlike

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60. Kevin Sieff, *A Referendum on a New Airport Was a Test for Mexico's Incoming President – And It Ended Badly, The Washington Post* (October 30, 2018) https://www.washingtonpost.com/world/2018/10/30/referendum-new-airport-was-test-mexicos-incoming-president-it-ended-badly/.

61. David Agren, *Mexican City Rejects Plans for Giant US-Owned Brewery Amid Water Shortages, The Guardian* (March 23, 2020) https://www.theguardian.com/world/2020/mar/23/mexico-brewery-mexicali-constellation-brands.

Norway's NOC, Equinor, Pemex operates only in Mexico and its ability to partner with IOCs has been suspended[62].

Regardless of the approach taken, Pemex must become leaner and more efficient. Above all, it should be managed by professionals who are held to the highest ethical standards and who guarantee autonomy from the whims of politicians.

And what of the Mexican government? It must become less dependent on Pemex for budget revenues. Mexico should manage its petroleum resources and revenues in a sustainable way. A significant portion of the revenues should be held in a sovereign wealth fund, so that when oil production eventually ceases, Mexican citizens will not be taxed into poverty.[63]

62. Amy Stillman and Peter Millard, *Mexico Oil Giant Suspends Contracts, Sparking Job Losses, Bloomberg* (June 10, 2020) https://www.bloomberg.com/news/articles/2020-06-10/mexico-oil-giant-suspends-service-contracts-sparking-job-losses.

63. After this paper was submitted, Charles Waine, 'Pemex Scales Back Upstream Goals', *Petroleum Economist*, October 2020, 41 (Pemex loses US$26.4 bn and scales back its spending).