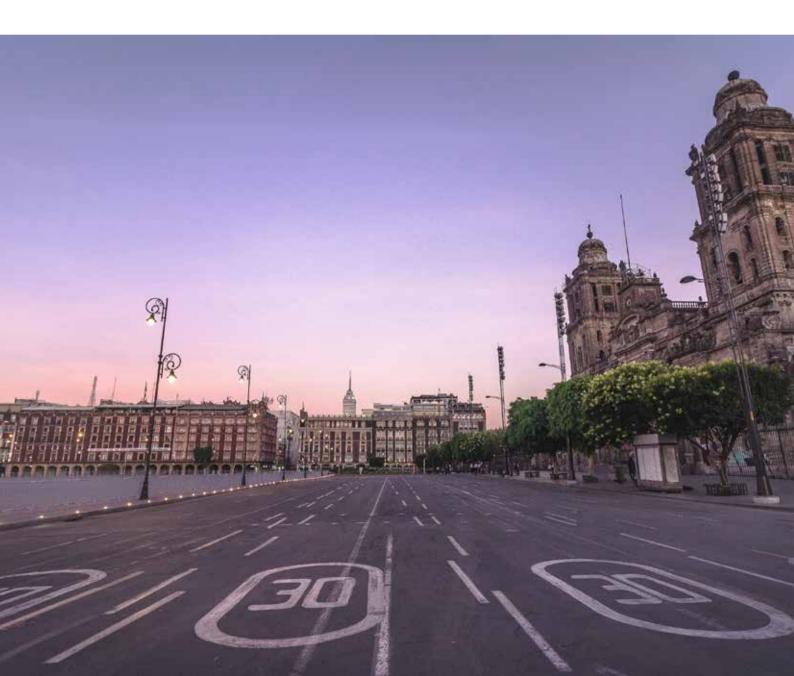


Mexico in the Time of COVID-19: an OPIS Primer on the Impact of the Virus Over the Country's Fuel Market

## Your guide to diminishing prices and fuel demand



**Leading Author** Daniel Rodriguez

**OPIS Contributors** Justin Schneewind Eric Wieser

**OPIS Editors** Lisa Street Bridget Hunsucker

IHS Markit Contirbuitors Carlos Cardenas Debnil Chowdhury Felipe Perez Kent Williamson Paulina Gallardo Pedro Martinez

OPIS Director, Refined Products and Renewable Fuels Jennifer Brumback

**OPIS VP, Strategic Content** Steve Tan

## Table of Contents

A Historic Demand Crash2IHS Markit: Worst Case Drops Mexico's Gasoline Sales to 1990 levels3KCS: Mexico Fuel Demand to Drop Up to 50%4ONEXPO: Retail Sales Drop 60%4ONEXPO: A Retail View on COVID-19 Challenges5IHS Markit: USGC Fuel Prices to Remain Depressed Into 20216Dimensioning the Threat7Mexico Maps Timeline for Returning to Normality7Tales of Two Quarantines8End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster.22IHS Markit: Mexico's Energy Policy to be Tested in 202123	Coronavirus Clouds Mexico's Energy Reform1
KCS: Mexico Fuel Demand to Drop Up to 50%	A Historic Demand Crash2
ONEXPO: Retail Sales Drop 60%	IHS Markit: Worst Case Drops Mexico's Gasoline Sales to 1990 levels
ONEXPO: A Retail View on COVID-19 Challenges.5IHS Markit: USGC Fuel Prices to Remain Depressed Into 2021.6Dimensioning the Threat.7Mexico Maps Timeline for Returning to Normality.7Tales of Two Quarantines.8End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization.9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery.18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up.20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster.22	KCS: Mexico Fuel Demand to Drop Up to 50%4
IHS Markit: USGC Fuel Prices to Remain Depressed Into 2021.6Dimensioning the Threat.7Mexico Maps Timeline for Returning to Normality.7Tales of Two Quarantines8End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization.9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery.18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up.20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster.22	ONEXPO: Retail Sales Drop 60%4
Dimensioning the Threat7Mexico Maps Timeline for Returning to Normality7Tales of Two Quarantines8End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster.22	ONEXPO: A Retail View on COVID-19 Challenges5
Mexico Maps Timeline for Returning to Normality7Tales of Two Quarantines8End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	IHS Markit: USGC Fuel Prices to Remain Depressed Into 2021
Tales of Two Quarantines8End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	Dimensioning the Threat7
End of COVID-19 Maybe 2022: Harvard8Virus Doesn't Hold Back Market Liberalization9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster.22	Mexico Maps Timeline for Returning to Normality7
Virus Doesn't Hold Back Market Liberalization9IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	Tales of Two Quarantines8
IOCs Outcompete Pemex on Pricing: PROFECO12Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	End of COVID-19 Maybe 2022: Harvard8
Uncertainty Surrounds Construction of Terminals13Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	Virus Doesn't Hold Back Market Liberalization9
Clash Over Construction Jurisdiction14Mexico Should Delay Fuel Inventory Policy: Analysts15COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster.22	IOCs Outcompete Pemex on Pricing: PROFECO
Mexico Should Delay Fuel Inventory Policy: Analysts	Uncertainty Surrounds Construction of Terminals13
COVID-19 Impacts the Second Wave of Terminals16Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	Clash Over Construction Jurisdiction14
Refining as Part of Economic Recovery18Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	Mexico Should Delay Fuel Inventory Policy: Analysts
Challenges to Boosting Refining Levels19IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	COVID-19 Impacts the Second Wave of Terminals16
IHS Markit: COVID-19 Could Disrupt Maintenance Efforts19Pemex's Balancing Act20Government to Support Pemex as Losses Pile Up20Force Majeure Could Hit USGC Refiners: Analysts21COVID-19 Turns Mexico Freight Rates Into a Rollercoaster22	Refining as Part of Economic Recovery18
Pemex's Balancing Act	Challenges to Boosting Refining Levels
Government to Support Pemex as Losses Pile Up	IHS Markit: COVID-19 Could Disrupt Maintenance Efforts
Force Majeure Could Hit USGC Refiners: Analysts	Pemex's Balancing Act
COVID-19 Turns Mexico Freight Rates Into a Rollercoaster	Government to Support Pemex as Losses Pile Up
	Force Majeure Could Hit USGC Refiners: Analysts
IHS Markit: Mexico's Energy Policy to be Tested in 2021	COVID-19 Turns Mexico Freight Rates Into a Rollercoaster
	IHS Markit: Mexico's Energy Policy to be Tested in 2021

## Coronavirus Clouds Mexico's Energy Reform

Tracking the unfolding coronavirus disease 2019 (COVID-19) crisis will be critical to understand and measure the immediate impact on Mexico's fuel demand, prices and private expansion plans. In addition, considering medium-and-long-term developments of the pandemic and the resulting economic crisis will allow fuel marketers, distributors and retailers to prepare for the uncertainty ahead.

The coronavirus spread during a critical year for the liberalization of Mexico's downstream market and also came at a time when President Andres Manuel Lopez Obrador was planning to strengthen Pemex.

In 2020, international oil companies (IOCs) expected to start up operations across many major terminals to boost fuel imports across Mexico. At the end of the previous year, OPIS by IHS Markit projected up to 13 new private terminals could come online by the end of 2020, based on information from market participants. However, due to the disruption caused by the virus this number was reduced by half.

Data from Mexico's Energy Secretariat (SENER) showed gasoline demand fell 30% YOY during the first week of April. However, preliminary data from Mexico's largest retail association, ONEXPO, showed demand dropped 60% during

the second week of April as the government urged people to stay home.

The worst may be yet to come for Mexico's COVID-19 crisis. The Lopez Obrador administration declared on April 21 the phase three of its virus outbreak. At this stage, the government expects an exponential growth in cases in May that risks jeopardizing the country's health system.

It is yet to be seen how much Mexico's fuel demand could drop as a result of the crisis. In April, OPIS estimated U.S. gasoline retail sales fell as much as 50% year-over-year (YOY) as three in four Americas were under some sort of stay-home order. Meanwhile in one of the hardest hit European nations, Spain, data from midstream operator CLH showed gasoline demand fell 82%, for diesel 68% and for jet fuel 92%, as the country faced a strict lockdown as it number of cases second to Italy at the onset of the pandemic.

For this special primer, OPIS by IHS Markit gathered its news coverage from recent months to examine COVID-19's impact on the landscape of the world's fifth-largest gasoline and 16thlargest diesel markets. This report provides the most updated information as of April 30.



### A Historic Demand Crash

With over 3 million cases across the globe, by the end of April, COVID-19 cut oil demand as economies across the globe shut down, starting with the Chinese province of Hubei in January. IHS Markit on April 15 projected oil demand will drop to uncharted levels as a result of the pandemic. The firm expects global fuel demand to fall by 21 million b/d during the second quarter of 2020. OPIS is a division of IHS Markit.

OPEC in its April monthly market update forecasted global oil demand to drop by 28 million b/d for the month and described the coronavirus outbreak as a "historic shock." OPEC noted that 60% of global oil demand is in countries under quarantine measures.

In the case of Mexico, IHS Markit forecasted in April that Mexican gasoline demand could drop as much as 45% YOY in April and May due to stay-at-home orders and the rollout of phase three measures.

Mexico declared a sanitary emergency on March 30, requesting companies to cancel all non-essential economic activity to curve the virus' exponential growth. On that day, Mexico's COVID-19 cases exceeded 1,000.

By mid-April, Mexico's Federal Deputy Health Secretary Hugo Lopez-Gatell said regional outbreaks could spread the virus at a national level, generating thousands of infections and putting the country's health system at risk of collapse. "The epidemic isn't going to slow down. It is unstoppable," Lopez-Gatell said.

Under the national "phase three" of the pandemic declared on April 23, the federal government ordered states and municipalities to enforce the suspension of non-essential activities and promote stay-at-home orders. That day, the number of confirmed cases in Mexico reached 9,500. On April 30, cases reached 19,500.

Google's mobility data for March showed Mexico trailed behind stay-at-home orders in the United States, Spain and other Latin American countries. Mexico began coming in line with those countries later in April, with fewer people taking public transit and visiting retail locations and close to half of the population not commuting to their workplaces in the week ended April 26.

Mexican gasoline demand fell along mobility trends in the country, SENER data revealed. During the last week of March, gasoline demand dropped 15.7% YOY down to 700,000 b/d, and during the first week of April, gasoline demand fell 33% YOY to 537,000 b/d.

How much gasoline demand falls in Mexico and how fast © 2020 OPIS by IHS Markit





#### Mexico's Diesel Demand ('000 b/d)



#### Mexico's Jet Fuel Demand ('000 b/d)



"During the first week of April, gasoline demand fell 32.1% year over year with diesel dropping 24.4% and jet fuel 69.3%"

Mexico's Gasoline Demand ('000 b/d)

900

750

600

## IHS Markit: Worst Case Drops Mexico's Gasoline Sales to 1990 levels

it recovers to pre-COVID-19 levels will depend on how successful the country is at containing the pandemic, said Paulina Gallardo, an IHS Markit downstream analyst for Latin America, on April 15.

"The determinant factor on any fuel demand projection is how restrictive Mexico's quarantine measures are under phase three," Gallardo said. There is a risk that Mexico could undergo a slower U-shaped recovery, due to a weak adherence to social distancing measures rather than a V-shaped obtained with a strict quarantine, she added.

Under its base scenario with a slim U-shaped recovery, IHS Markit sees Mexico gasoline demand beginning to recover to normal levels in September. Under this base scenario, gasoline demand falls about 33% in April and May, with demand in 2021 reaching between 760,000 b/d and 780,000 b/d, slightly under 2019 reported levels.

In its worst-case scenario, IHS Markit forecasts an extended U-shaped recovery if quarantine measures are not strictly followed. Under this scenario, demand drops 35%-45% YOY from April to July, with fuel demand recovering to normal levels later in 2021 due to a major GDP contraction.

"If the economic conditions worsen, fuel demand in 2021 could be 40,000 b/d to 50,000 b/d lower than the average for 2019," Gallardo said. Under IHS Markit's worst-case scenario forecast, OPIS calculates Mexican gasoline demand in May could drop to levels unseen since 1990—somewhere around 450,000 b/d.

40% 20% 0% -20% -40% -60% -80% -100% Retail & Workplaces Residential Transit Recreation Stations Ecuador Mexico U.S. Brazil Argentina Colombia Italy Spain Source: Google Mobility Data

#### Mexico Stay-Home Efforts Trailed Other Countries at the End of March

IHS Markit forecasted in mid-April that Mexico's GDP would fall 8% this year amid the COVID-19 crisis. Some institution have estimated even deeper declines, such as Spanish bank BBVA projecting a GDP drop of 12% amid the lax response from the government.

It is yet to be seen how restrictive stay-at-home orders in Mexico could be as the number of cases grow. Lopez Obrador said in April he will not declare a state of emergency or use security forces to enforce quarantines.

Due to poverty, it will be difficult for Mexico to implement a strict quarantine, Lopez-Gatell said in late March, adding that half of Mexico lives workday-to-workday.

#### "The determinant factor on any fuel demand projection is how restrictive Mexico's quarantine measures are under phase three," Gallardo said.

While those factors clearly weigh on the outlook for gasoline, projecting how much diesel demand will fall in Mexico is more complicated, Gallardo said. The biggest drop could be seen in May, after factory inventories deplete in April amid plant shutdowns, she added.

The diesel demand decline for 2020 could be 10% compared with the previous year, Gallardo said. However, other sectors, such as the agricultural industry, could provide support for diesel demand. "How rapidly diesel demand recovers this year will depend on how fast manufacturing activity picks up after the pandemic is constrained," she added.



#### Mobility Trends Shows 50% Fewer People Are Going to Workplaces Vs. January

© 2020 OPIS by IHS Markit



## KCS: Mexico Fuel Demand toONEXPO: Retail Sales Drop 60%Drop Up to 50%As Mexico extended stay-at-home measures until May, the

Kansas City Southern (KCS) expects a drop in Mexico's fuel demand of up to 50% in the short term, the rail company disclosed April 17 during its quarterly investor call.

Fuel marketers "expect a demand rebound, and they are planning to move ahead with their retail expansion across Mexico," said KCS Chief Marketing Officer Mike Naatz. The company ships a fifth of all Mexico fuel imports, according to an OPIS estimate.

Fuel marketers shipping fuel with KCS told the company the COVID-19 impact on fuel demand will be short-lived, Naatz said.

The number of fuel carloads moved into Mexico by KCS grew 43% YOY during the first quarter, reaching 26,700. The company's revenue from fuel shipments into Mexico grew at the same rate, closing at \$56.5 million.

Naatz said KCS did not see any COVID-19 impacts on fuel shipments until the last two weeks of March. Compared with the fourth quarter of 2019, KCS' Mexican fuel carload movements jumped 25%. Considering a typical rail fuel car holds 715 bbl, KCS moved 209,785 b/d of gasoline, diesel and LPG during the first quarter of 2020.

Based on SENER data, KCS imports represented 20% of total refined products, including LPG, brought into Mexico during January and February. Naatz did not disclose the breakdown of its imports by product. However, KCS previously told OPIS that from the 40 million bbl it moved in 2019, 52% was gasoline, 30% diesel and the remaining was LPG.

As Mexico extended stay-at-home measures until May, the country's largest retail association, ONEXPO, reported fuel demand dropped 60% during the second week of April compared with March.

Roberto Diaz de Leon, ONEXPO president, told OPIS on April 17 that grouping sales data from its state chapters showed the largest drops in fuel sales in large urban areas.

According to anecdotal information from ONEXPO members, weekend fuel sales in rural areas were near normal conditions as people moved to visit the main towns in the areas.

However, this was expected to change as some regions, such as Oaxaca and Sonora states, began restricting movements with curfews to prevent the spread of the coronavirus.

A retail group in San Luis Potosi reported a 58% loss in fuel sales from taxi groups in April, according to Diaz de Leon.

The fall in demand in other parts of Latin America and Spain has been as high as 80%, Diaz de Leon said, based on data shared April 15 at a meeting of the Latin American Commission of Fuel Retailers (CLAEC).

Fuel marketers shipping fuel with KCS told the company the COVID-19 impact on fuel demand will be short-lived, Naatz said.



## ONEXPO: A Retail View on COVID-19 Challenges

Roberto Diaz de León, ONEXPO president, told OPIS on April 17 that falling sales with the prospect of higher fuel prices could leave Mexico's retail sector decapitalized.

Retailers worry about the peso depreciation along the possibility of a price surge in the next months amid oil production cut efforts by OPEC++, he added

"With a diminishing cash flow, any sudden increase in fuel prices could collapse our operations as we have to replenish more expensive inventories," Diaz de Leon said.

To sort this challenge, the Latin American Commission of Fuel Retailers (CLAEC) in a joint statement urged fuel suppliers to extend the term on credit sales and contractual payments.

The interest of international oil companies to expand across Mexico has not changed despite the COVID-19 crisis; however, their investment plans are going to be rethought, he added. "I don't have doubts these companies will adjust their investment plans," Diaz de Leon said. "Their initial goals for market share won't change, but their tactical approach to achieve it might."

An example of this is that from March 30 to April 6, private companies importing fuel had the lowest fuel prices in

Mexico, according to the Federal Consumer Protection Attorney Office (PROFECO).

New foreign and domestic players are sustaining competitive prices that are making for a more dynamic retail landscape, Diaz de Leon said.

"Entering Mexico's fuel market is a long-term strategy. New players could change their plans temporarily, but their longterm vision remains," Diaz de Leon said.

ONEXPO expects no fuel supply disruptions during phase three. However, Mexico's fuel retail sector will likely change the way it operates based on the experience in other Latin American countries under strict quarantines, Diaz de Leon added.

In areas with a large concentration of pump stations, retailers will likely operate under reduced hours or intermittently coordinating closures based on weekdays, he added. "We don't discount that similar measures could be implemented

"Entering Mexico's fuel market is a longterm strategy. New players could change their plans temporarily, but their long-term vision remains," Diaz de Leon said.

## IHS Markit: USGC Fuel Prices to Remain Depressed Into 2021

IHS Markit does not expect refined products spot prices to recover to until at least October 2021. Projections show U.S. Gulf Coast refiners will have diminished returns for every refined oil barrel until at least mid-2021, Stephen Jew, IHS Markit global refining and marketing director, told OPIS on April 21.

"We do not expect year-on-year crude run growth to shift to positive levels until 2021," Jew said. The price of USGC regular gasoline will not recover to pre-COVID-19 levels until at least third quarter 2021, reaching \$1.076/gal (6.82 peso/liter) by December 2021, according to an IHS Markit price forecast for the region. USGC ultra-low-sulfur diesel (ULSD) prices will also remain under pressure over the coming year, with prices going up to \$1.255/gal (7.96 peso/liter) in December 2021, the IHS Markit regional forecast showed.

Considering those IHS Markit projections, and applying OPIS methodology for calculating Mexico landed spot fuel prices, regular USGC gasoline delivered to the east coast of Mexico—including special sales tax (IEPS), CO2 taxes and VAT—could rise to \$2.049/gal (\$13 peso/liter) by mid-2021 from an estimated price of about (\$1.245/gal) (7.90 peso/liter) for May. Applying the same methodology calculations to the IHS Market distillates forecast showed the landed price for diesel possibly reaching \$2.324/gal (14.74 peso/liter) by mid-2021 from \$1.631/gal (10.35 peso/liter) in May. Both price calculations for ULSD and regular gasoline considers no fiscal stimulus on the IEPS sales tax.

Fuel prices have not tanked as much as crude as U.S. refiners cut utilization rate to 69% during the first week of April, down from 94% for the last week of 2019, according to U.S. Energy Information Administration data. IHS Markit expects global refinery utilization to fall below 65% in May. OPIS reported in April at least three North American refineries are temporarily shutting down.

Refiners were reacting faster to lower prices than upstream operators, an analysis of U.S. Energy Information Administration (EIA) data showed. U.S. crude output fell to 12.3 million b/d during the first week of April compared to 12.9 million b/d in December, according to the EIA. As refiners reach limits on their options such as shifting product yields, product storage, opportunistic and longer distance exports, fuel benchmark margins for the rest of the year could reach historic lows," Jew said. Fear of U.S. storage shortages led to the crash of WTI prices on April 20, breaking the floor into negative territory for the first time, with prices settling at negative 37.63/bbl on the NYMEX.



#### OPIS East Coast Mexico Waterborne Landed Spot Prices vs. WTI NYMEX (US cts/gal)

## Dimensioning the Threat

Politicians, market observers and health experts have questioned the extent of the COVID-19 crisis in Mexico and the number of cases reported by government.

Mexico uses a Sentinel Surveillance Model to monitor the severe cases at hospitals. With this sample data, the Lopez Obrador administration infers the wider number of COVID-19 cases.

Lopez-Gatell described the sentinel model similar to an opinion poll, saying it is impossible to track every case via mass testing.

The government is using a factor of 8.3 on the number of confirmed cases to infer the number of infections across Mexico. Based on this, Mexico could have an inferred number of 97,000 COVID-19 infections based on the 11,650 confirmed cases the country reported on April 23.

The Investigative Science Coordinating Council at Mexico's most prestigious university, Universidad Nacional Autonoma de Mexico, UNAM, reported in mid-April that the government could be underreporting COVID-19 cases and logging them as acute respiratory infections (ARI). According to the council, the number of ARI cases exceeded the average trendline for the last five years by 150,000 cases during the 13th week of 2020.

"We have no doubt that the figures being given (by the Mexican government) don't correspond with reality," Cristin Morales, Pan American Health Organization (PAHO) representative in Mexico, told BBC on April 6.

The director of the J. Garcia Lopez private network of funeral homes reported it attended 40 deaths with respiratory problems, 17 diagnosed as COVID-19 and 23 as atypical pneumonia between March 24 and April 6, according to a media report by Spanish wire service EFE on April 10.

Data reliability is an issue not only in Mexico but across Latin America. In the Ecuadorian province of Guayas, the country's COVID-19 epicenter, 6,700 people died during the first 15 days of April when the usual rate is 1,000. The government has not confirmed all death causes, but health experts, such as the PAHO, suspect COVID-19 as the culprit.

## Mexico Maps Timeline for Returning to Normality

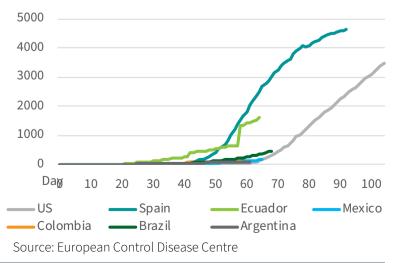
On April 17, the Mexican government announced an extension of its social distancing measures beyond April 20 until May 30 to fight COVID-19. As social distancing measures are lifted by the end of May, retailers and fuel distributors might experience an uptake in fuel demand as communities restart economic and educational activities. However, the industry has also to be prepared for a second outbreak based on the experience some countries had after surpassing their first outbreak.

The federal government's Health Science Advisory Board estimated the plateau of the pandemic could be reached as soon as the second week of May with 5,000 cases confirmed each day, Lopez-Gatell said in mid-April. On April 22, Mexico reported for the first time over 1,000 daily confirmed cases of COVID-19.

Lopez-Gatell said a significant number of municipalities in Mexico still are on phase one conditions without community COVID-19 outbreak, allowing the government to lift social distancing measures in less impacted regions by mid-May.

About 979 municipalities out of Mexico's 2,463 could start returning to normality if stay-home-orders are strictly followed, the deputy health secretary said. These 979 municipalities represent 27% of the country's population.

The government expects the "first cycle of the epidemic" will end by June 25 with a minimum level of new COVID-19 cases, Lopez-Gatell said. As stay-at-home measures are lifted, the fuel market should monitor the spread of potential successive outbreak waves, a possibility Lopez-Gatell has mentioned.



#### Confirmed COVID-19 Cases per 1 Million People Since First Infection

### Tales of Two Quarantines

As the Mexico fuel market prepares to a return to normality, the industry can evaluate the implications of mass testing programs, or a lack thereof, on the COVID-19 pandemic regionally when stay-home orders are lifted, based on the international experience.

Mexican Deputy Health Secretary Lopez-Gatell has said mass testing programs are a waste of resources, a position the Japanese government shared at the beginning of the pandemic. However, Hokkaido officials shifted course in favor of mass testing following a second outbreak.

The Japanese island saw the begining of a second outbreak in April after successfully containing its first wave 26 days before. It was the first region in the country to declare a state of emergency in February.

Local authorities aggressively tracked the steps of each single COVID-19 case and quarantined anyone who had contact with those infected. The strategy worked and by mid-March the number of new cases fell to one or two per day, according to media reports. On March 19, the state of emergency ended. However, on April 14, Hokkaido declared another state of emergency as it registered 135 new cases over one week. Meanwhile, Daegu, the epicenter of South Korea's COVID-19 crisis, also reported its first cases in February, but its mass testing program resulted on a different outcome.

Daegu's testing program tracked asymptomatic cases and prevented a second wave of cases. Meanwhile, the Japanese authorities did a small number of tests at the time, considering it a waste of resources, BBC reported. By the end of April, Japan changed course and began ramping up its testing program, the British broadcaster said.

The World Health Organization said on April 6 that the latest research shows ill people can infect others with COVID-19 one to three days prior to showing its first symptoms, making it challenging to contain the virus without testing people.

**Caption:** Deputy Health Minister Hugo Lopez-Gatell. Source: Goverment of Mexico.

### End of COVID-19: Maybe 2022?

A return to normality will only happen when a successful cure or vaccine is developed or when humanity develops herd immunity, according to a research paper published April 14 by Harvard University's T.H. Chan School of Public Health.

Harvard researchers concluded that it is likely that successive global COVID-19 outbreaks will happen in the medium and long term, which creates uncertainty about the pace of fuel demand recovery under the scenarios.

Under all scenarios, COVID-19 cases resurge as soon as social distancing measures are lifted, even under a five-month quarantine. It is likely distancing measures could be ended by early-to-mid 2021 with the epidemic ending in July 2022, the Harvard paper concluded.

According to the paper, it could take months to years to develop and test pharmaceutical treatments and vaccines to contain COVID-19, leaving social distancing and mass testing as the only immediate tools for countries to contain the virus.

The World Health Organization said it is unlikely a cure or vaccine is developed in the short term. However, companies making these seek to be ready by September, according to media reports. However, even if these were successful, it would be challenging to mass produce them, according to British daily newspaper The Guardian.

There is much unknown about COVID-19, such as how long human immunity lasts against the virus. The Harvard paper indicates humans have one year of immunity against coronavirus HCoV-HKU1 and HCoV-OC43, two of the most common cold viruses. On April 24, WHO said recovered COVID-19 patients are likely at risk of reinfections as there is no evidence that they develop antibodies against a second infection.

It is unknown if seasonality could boost COVID-19 contagions. Harvard researchers worry a large COVID-19 outbreak along the influenza season could stress health systems this autumn. If the immunity is annual, the world could see major COVID-19 outbreaks every winter, the Harvard report shows.





### Virus Doesn't Hold Back Mexico's Market Liberalization

The coronavirus struck at a critical time for Mexico's energy reform. Some fuel importers were close to achieving economies of scale as multiple new terminals were expected to come online this year. Despite the uncertainty emerged by the COVID-19 crisis, IOCs announced new or reaffirmed their plans for Mexico.

In March, Pemex's market share of gasoline and diesel represented 84.5% and 74.2% respectively of the national demand, an OPIS analysis of SENER data revealed. In comparison, Pemex supplied 94% of Mexico's gasoline and 81.7% of the diesel consumption in January 2019.

Private companies continued expanding in the retails sector in early 2020 against a backdrop of an evolving regulatory landscape as the current administration solidified Pemex's market position. Mexico had 8,800 retail stations under the Pemex flag on March 31, 14.4% less than in March 2019, data from the company shows. Based on this data, new brands control 37% of the country's retail market, according to OPIS calculations.

Total announced in March it seeks to end its dependency on Pemex and import 100% of the fuel it sells in Mexico—up

from 10% currently—once Monterray's marine terminal in Tuxpan comes online in 2021.

Valero opened its first 15 retail stations earlier this year. The U.S. refiner emerged as a significant player, contracting more than 5.8 million bbl of storage throughout Mexico with the goal of importing fuel produced at its USGC refineries.

Once IEnova completes its 2 million-bbl marine terminal in the Port of Veracruz in the coming months, Valero will be able to supply central Mexico in a competitive manner. MINT shows the terminal has yet to receive its first test cargo.

ExxonMobil kicked off April by inaugurating 12 service stations in Mexico City, the country's largest fuel market. In addition to these new stations, in April, ExxonMobil had contracts with nine large distributors that have opened 380 stations under the Mobil brand in 19 states.

Itzoil's Tuxpan marine terminal will allow ExxonMobil to supply its central Mexico stations. Tuxpan is the closest marine location to Mexico City at about 180 miles. Itzoil received its first two test fuel cargoes in late March, MINT by IHS Markit data shows. The facility also counts Shell and Trafigura as known offtakers.

## Mexico by the numbers

## 50+

Private companies are importing fuel

## 1.2M+

b/d of combined gasoline, diesel and jet fuel demand

## 1/3

Of retail stations across carry a non-Pemex brand.

22%

of total fuel imports were done by private companies

IIII

## 70+

New terminal projects are being planned

## 900K +

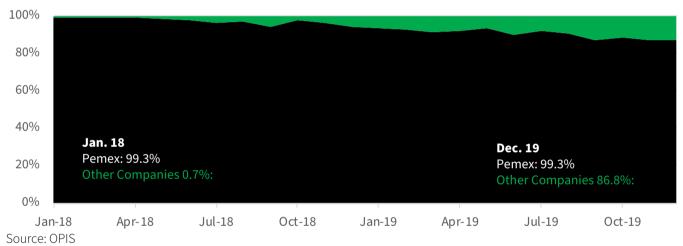
b/d of combined gasoline, diesel and jet fuel imported . . . . .

100%								
80%	Jan. 18							
60%	Pemex: Others:	2.1%				Dec. 19		
40%		ar: 1.4% on: 0.5%				Pemex: 78 Exxon: 4.4 Others: 4%	%	Marathon: 3% Koch S&T: 2.4% Valero: 2.1%
20%	Exxon: (					Windstar: 3 Glencore: 3	3.2%	Novum: 1.5%
0%		1 1	1 1 1	1 1 1	1 1 1	1 1 1	1	
Jar	n-18	Apr-18	Jul-18	Oct-18	Jan-19	Apr-19	Jul-09	Oct-19

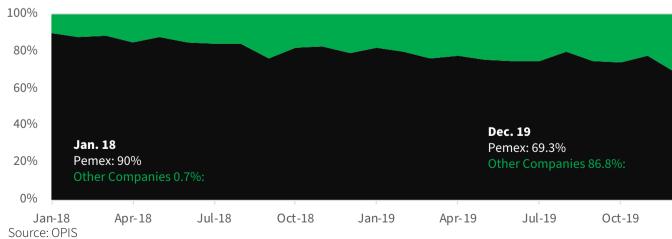
#### Pemex has Slowly Lost Share Over Mexico's Gasoline and Diesel Market

Note: Graph shows market share of total gasoline and diesel imports Source: SENER, PIERS Enterprise by IHS Markit

#### Market Share of Mexico's Total Gasoline Demand



#### **Market Share of Mexico's Total Diesel Demand**



## IOCs Outcompete Pemex on Pricing: PROFECO

The differential between Pemex's and ExxonMobil's retail regular gasoline prices reached 0.62 pesos/liter in mid-April, its widest point so far this year, according to the weekly fuel market report from Mexico's Federal Consumer Protection Attorney Office (PROFECO).

The average retail price of Pemex's regular gasoline price was 15.42 pesos/liter vs. Exxon's 14.8 pesos/liter. In second place was Glencore's G500, with a price of 15.11 pesos/liter. Total, BP and Repsol also have posted retail prices lower than Pemex, according to PROFECO.

Pedro Martinez, an analyst with IHS Markit's oil and gas risk group in Mexico City, told OPIS that multiple factors could be influencing the widening of the differential between Pemex and retail prices from companies like ExxonMobil.

On one side, the government stopped subsidizing fuel prices via the fiscal stimulus on the special sales tax on fuels (IEPS).

"This has reduced a factor in the volatility in prices that have allowed companies to maintain lower prices," Martinez said.

The IEPS impact on prices approximates a foreign-exchange-

risk as marketers pay this tax at the time of importing the product, but the fiscal stimulus fluctuates every week, market participants told OPIS.

The government has been pressuring the market to reduce its fuel prices via PROFECO's weekly report. Pemex branded stations were the first to lower prices, followed by the rest of the industry, Martinez said.

"Also, ExxonMobil's independent logistics system gives it a competitive edge in the market. Many of the private companies that still rely on Pemex for its fuel supply don't have this benefit," Martinez said.

Despite Mexico being the world's fifth-largest gasoline consumer, private interest in the country could drop due to its COVID-19 economic contraction, continued hostility against private investment and rising insecurity, Martinez said.

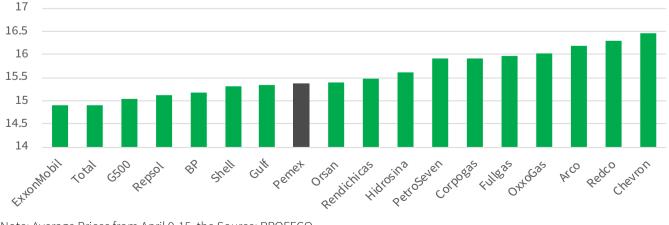
"If Mexico's situation keeps worsening, we could even see the exit of some companies from its fuel market," he added.

#### Leading New Retail Brands in Mexico by Number of Sties



Note: As of March. Source: CRE

#### IOCs Had Lower Retail Prices Nationwide Compared with Pemex (Peso/liter)



Note: Average Prices from April 9-15. the Source: PROFECO



## Uncertainty Surrounds Construction of Terminals

The project manager behind a new marine terminal at Altamira, Tamaulipas, told OPIS on April 24 that project construction continues despite the pandemic phase three declaration. Mexico's Transportation Secretariat (SCT) allowed the construction at federal ports following strict safety conditions and a reduced number of employees, the project manager said.

Construction workers on site are following strict safety distancing and wearing gloves and face mask with industrial-quality filters or N95 level, the project manager said. "No company wants to put at risk their employees, and only the vital personnel are on site," the manager said

The project manager believes that other fuel storage facilities must be following similar strict safety measures at other federal ports such as Veracruz, Tuxpan, Topolobampo and Manzanillo. OPIS was not able to confirm this independently.

COVID-19 impacted new projects with equipment delivery and permitting delays as well as reduced construction rates, IEnova said on April 23 during its quarterly earnings call. The company is Mexico's largest private midstream developer, with 10 million bbls of fuel storage capacity under construction.

Vladimir Caballero, the energy director for the municipality of Altamira, told OPIS on April 24 that COVID-19 has not deterred construction of energy projects in Altamira. "Although new fuel terminals have faced other types of obstacles and to date, no storage tanks have been built in the port yet," Caballero said.

Even if companies can continue construction, storage projects face several obstacles, a senior construction executive told OPIS on April 6. "The sector faces a triple crunch of financing problems, regulatory paralysis and supply chain disruptions," said the executive. "With all these challenges, we are heading to a very dark period, and not many companies are going to survive the COVID-19 crisis.

"Some builders have stopped construction and others not. Mexico is in chaos as we have clear legislation ordering to stop construction, but the government has not enforced it to avoid creating an employment crisis," the executive said.

Even if those projects soon complete their construction phase, they face uncertainty about starting operations, the executive said. The commissioning phase of storage terminals can be a complex and lengthy process, the executive added.

"Ensuring a project fulfills all safety requirements involves many stakeholders, and if CRE, SCT, port authorities, civil protection and other entities aren't approving permits, it is unlikely new projects will start operating," the executive said.

The Energy Secretariat (SENER), Energy Regulatory Commission (CRE) and Environmental and Industrial Safety Agency for the Hydrocarbon Sector (ASEA) has suspended approval of new permits until May 31 due to the COVID-19 outbreak.

Sources have told OPIS there is great uncertainty regarding if terminals undergoing their commissioning phases will be able to come online during the COVID-19 outbreak.

The regulatory burden to start up projects is limited as no new permits are required during the construction period, Luis Vera, a Mexico City-based energy lawyer and former director of ASEA, told OPIS on April 23.

After completion, a third party authorized by ASEA reviews and certifies the environmental and industrial safety of the terminal, he added. With this authorization, the operator requests CRE to greenlight the start of operations, Vera said. "Amid the bottleneck of thousands of permits waiting for CRE approval, it is difficult to say if new terminals will be able to start operating soon," Vera said.

### Clash Over Construction Jurisdictions

While the permitting of energy projects falls under federal jurisdiction, regional and municipal authorities oversee construction permits. As a result, some states took advantage of this regulatory framework to stop or support construction projects.

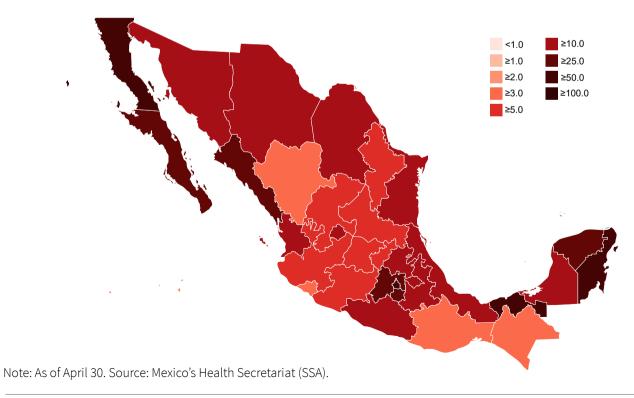
Vladimir Caballero, the energy director for the municipality of Altamira, told OPIS on April 24 there seemed to be a jurisdictional vacuum as the government of Tamaulipas classified the energy sector as an essential economic activity. "It is unclear under whose jurisdiction it is to stop economic activity between the federal and state governments. ... However, I expect both government levels to reach an agreement," Caballero added.

Many states in the Bajio region stopped construction projects and set negotiation tables between investors and construction companies, helping them to negotiate force majeure declarations and penalties, Santiago Arroyo, CEO of Queretaro-based energy consultancy firm URSUS Energy, told OPIS on April 6.

Fuel terminal developers face considerable uncertainty due to the lack of federal guidance and the absence of minimum guarantees amid the COVID-19 crisis for investors, said Arroyo, who represents several infrastructure developers as an energy lawyer.

"At the time, the federal authorities haven't established the legal environmental nor the guidelines for companies to make decisions such as continue operating or declaring force majeure," he added.

Mexican states can provide investment guarantees under a certain degree of constitutional sovereignty. "States are going to be the big winners of this crisis... They will show they are serious regional governments that can preserve foreign investment amid the federal vacuum," Arroyo said.



#### Number of Confirmed COVID-19 Cases Across Mexican StatesFor Every 100,000 inhabitants

## Mexico Should Delay Fuel Inventory Policy: Analysts

Mexico should consider postponing its Public Policy on Minimum Fuel Inventory Levels (PPMFI) as authorities have not released enforcement rules, analysts told OPIS.

Due to the lack of clarity on its implementation, enacting the PPMFI should be postponed, independent analyst Barrios told OPIS on April 14.

The policy allows marketers without access to storage capacity to acquire inventory tickets to fulfill it. However, it is unknown how tickets will be produced, traced and validated, Barrios said.

Marcial Diaz, director of Mexico City-based energy consultancy Lexoil, told OPIS that validating tickets could be a challenge due to Mexico's regulatory underfunding. Currently, there is no way to prevent a player from producing more tickets than the inventory it holds, he added.

Despite the COVID-19 crisis, SENER told OPIS on April 13 it is not considering postponing the July 1 enactment date of the policy, which requires fuel markets to store five days of fuel sales.

Without clear guidelines the ticket system could be vulnerable to corruption and fraud, Chevron and Marathon Petroleum said during a public consultation last year with other stakeholders, worrying that non-discriminatory access rules to tickets could affect competition.

The industry is waiting for Mexico to release the penalties for those who cannot follow the policy, Diaz said. "If you can't fulfill the inventory requirements, could your permit be revoked? No one knows," he added.

Since mid-2019, SENER has subjected the approval of fuel import permits to the existence of a storage contract.

"Those players who seek to renew their imports without access to storage tickets might be left out of the market," Diaz said.

Lexoil clients are closely following a Pemex pledge to grant inventory tickets, he said. To date, Pemex has promised it will produce tickets, but no one has seen a signed contract for one. Much less, no one knows what their price should be or if Pemex has enough storage capacity available for all its clients," Diaz added.

The country also has questions of image at stake in this matter, Barrios said. "Mexico is a country being brutally questioned in terms of juridical terms. Using the policy as a tool to block Pemex's competitors would tear the country's image," she said.

Such a speculative scenario is unlikely but rooted in the Lopez Obrador administration's preference on supporting Pemex over private companies, she added. "The lack of information on the policy's enforcement is fueling speculation."

If Mexico postponed its enactment by another year, the industry would have time to contribute to its implementation rules and allow new terminals to come online and Pemex to sign inventory ticket contracts, Diaz said.





	Location	Developer	Known/Presumed Offtakers	Capacity S	tartup Date
1	Salinas Victoria, N.L.	Bulkmatic	ExxonMobil	1.2M bbl	Operating
2	Paraíso, Tab.	AxfalTec	Glencore	600K bbl	Operating
3	S.J. Iturbide, Gto.	Grupo SIMSA	ExxonMobil, Pemex, Shell	650K bbl	Operating
4	Progreso, Yuc.	Hidrosur	Pemex	460K bbl	Operating
5	San Luis Potosí	ТСМ	ExxonMobil	300K bbl	Operating
6	Veracruz	Vopak	Koch Industries	464K bbl	Operating
7	Lagos de Moreno	Olstor Service	Repsol, Pemex, Akron	300K bbl	Operating
8	Nuevo Laredo	NuStar	Valero	35K bbl	Operating
9	Matamoros	Ter. Rio Bravo	Vitol	270K bbl	Operating
10	Tuxpan, Ver.	Itzoil	ExxonMobil, Shell, Trafigura	1.4M bbl	2020
11	Tula, Hgo.	Itzoil	ExxonMobil, Shell, Trafigura	720K bbl	2020
12	Atlacomulco, Mex.	SIADSA	Trafigura	300K bbl	2020
13	Veracruz, Ver.	IEnova	Valero	2.1M bbl	2020
14	Huejotzingo, Pue.	IEnova	Valero	650K bbl	2020
15	Temascalapa, Mex.	IEnova	Valero	860K bbl	2020

Access to fuel storage infrastructure has been a key enabler for companies to import fuel. Koch Industries, Glencore, ExxonMobil, Marathon Petroleum and Valero fuel imports have grown along with their access to infrastructure. Valero is the leading fuel marketer in Mexico in terms of anchoring new terminals. The U.S. refiner has offtake agreements for six new terminals with a combined 5.8 million bbl of storage capacity, all set to serve large demand centers across the country. A close number two is ExxonMobil, anchoring the development of five terminals and a suspected sixth. ExxonMobil became the leading private fuel importer in Mexico by using three rail terminals: Bulkmatic's Salinas Victoria, TCM's San Luis Potosi and Grupo SIMSA's San Jose Iturbide. Marathon is another larger player fostering the development of four facilities.



Location	Developer	Known/Presumed Offtakers	Capacity S	tartup Date
16 Ensenada, B.C.	IEnova	BP, Chevron	1.2M bbl	1H21
17 Rosarito, B.C.	Marathon Petroleum	Marathon Petroleum	660K bbl	1H21
18 Hermosillo, Son.	Windstar	Windstar	130K bbl	1H21
19 Chihuahua, Chih.	Windstar	Windstar	130K bbl	1H21
20 Topolobampo, Sin.	IEnova	Marathon Petroleum, Chevron	1.6M bbl	1H21
21 Manzanillo, Col.	IEnova/Trafigura	Marathon, Trafigura, BP	2.2M bbl	2021
22 Guadalajara, Jal.	Sylos-Tysa	Valero	900K bbl	2021
23 Guadalajara, Jal.	IEnova	BP	290K bbl	2021
24 El Salto, Jal.	Itzoil	Marathon Petroleum	450K bbl	2021
25 Acolman, Mex.	HST/CLH	Repsol	1.2M bbl	2021
26 Axapusco, Mex.	Enermex	Enermex	1M bbl	2021
27 Tuxpan, Ver.	SSA Marine/Monterra	Total, Repsol	3.1M bbl	2021
28 Coatzacoalcos, Ver.	High Level Energy	Unk.	600K bbl	2021
29 Queretaro	Avant Energy/Savage	Unk.	450K bbl	2021
30 Altamira, Tamp.	Avant Energy/Savage	Unk.	1.2M bbl	2021
31 Altamira, Tamp.	Huasteca Fuel Term.	ExxonMobil, Trafigura	1.6M bbl	2021
32 Altamira, Tamp.	Operadora de Term. Maritimas	Valero	1.1M bbl	2021
33 Monterrey, N.L	Grupo Mexico	Valero	425K bbl	2021



After taking power in December 2018, Lopez Obrador set a \$1 billion refinery maintenance program. So far, Pemex has disbursed 28% of these funds between then and March, an OPIS analysis of expenditure records show.

Mexico's Reliance on Fuel Imports Have Grown in Recent Years Amid Refinery Challenges (b/d)



## Refining as Part of Economic Recovery

Despite the challenging environment, President Lopez Obrador holds to his goal of making Mexico fuel selfsufficient and strengthening its energy sovereignty.

On April 21, Lopez Obrador said Pemex will process 1 million b/d of crude oil in May. "We're going to be able to produce more gasoline in Mexico and stop buying gasoline abroad," he added. Mexico is one of the largest fuel importers among oil-producing nations, the president said.

"It's a paradox. I always say that it is like selling oranges and buying orange juice," Lopez Obrador said. Pemex reported on April 30 during its quarterly earnings call it ended the month processing 670,000 b/d of crude oil while first quarter refinery runs averaged 542,000 b/d.

Refineries have suffered from a lack of maintenance since the 2013 oil price crash. Pemex's maintenance spending reached \$1 billion that year, declining to \$278.8 million by 2019, data from Mexico's Financial Secretariat (SHCP) collected by OPIS shows.

Energy Secretary Rocio Nahle on April 15 said Pemex has completed 60% of its major rehabilitation program started early last year. After taking power in December 2018, Lopez Obrador set a \$1 billion refinery maintenance program. So far, Pemex has disbursed 28% of these funds between then and March, an OPIS analysis of expenditure records show.

In September, Nahle pledged Pemex would process 1 million b/d in December. However, Pemex failed to reach that mark. The secretary has said delays to receive replacement pieces held back maintenance works.

Ongoing refinery projects will not be subject to spending postponement as part of Mexico's economic package to confront COVID-19 impacts. "This leads us to reaffirm the necessity of continuing to build the new Dos Bocas refinery, to seek to become self-sufficient and not import foreign gasolines," Lopez Obrador said.

The government pledged the 340,000-b/d Dos Bocas refinery will be completed by 2022 at a cost of \$8 billion. Analysts said this is unachievable and that divest needed funds for upstream projects or to tackle the current COVID-19 crisis.

Mexico expects to process 775,000 b/d of oil in 2020 and 1.251 million b/d in 2021, levels unseen since 2009, according to an OPIS analysis of SHCP revised budgetary planning assumptions released April 2.

## Challenges to Boosting Refining

Market observers told OPIS in recent months they are concerned that by boosting refinery runs, Pemex will further increase its losses. Pemex reported negative operative refining margin of minus \$12.51/bbl during the first quarter, down from minus \$2.64/bbl during the fourth quarter of 2019.

In comparison, Valero Energy, which has developed an infrastructure system to import fuels into Mexico, reported an operative refining margin of \$3.87/bbl during the first quarter, down from \$4.15/bbl a year ago. After considering amortization and asset depreciation, Valero's refining margin was \$1.28/bbl.

Higher maintenance spending will not solve Pemex's underlying efficiency problems, Rosanety Barrios, a Mexico City-based independent energy analyst, told OPIS in early March.

"It isn't an issue of funding but execution capacity. Pemex, as a company, faces an ample range of problems," Barrios said. For example, coking units at Cadereyta, Madero and Minatitlan refineries require not only general maintenance but also replacing entire units, something that can be very expensive, she said.

Higher maintenance expenditures will not solve Pemex's 20% high-sulfur fuel oil yield, which has a negative crack spread of over \$20/bbl, Barrios said.

The refining panorama for Pemex seems worse during the second quarter as the structural challenges remain in place, Kent Williamson, IHS Markit refining director for Latin America, told OPIS on April 30.

"The conditions that contributed to the poor result in the first quarter have only worsened in the second quarter. If they do succeed in ramping up refinery runs, they will produce even more fuel oil, which will degrade margins further," Williamson said.

HR Ratings said on April 30 that Pemex risks greater losses by ramping refinery runs as the value of the company's sales could fall 42% in 2020 versus the previous year due to lower fuel demand and energy prices.

According to an analysis by Mexico's Federal General Auditor (ASF), Pemex's 2018 gasoline production cost was \$90.64/ bbl, which was 15% higher than the average OPIS spot price for USGC Reg. 87 price that year. "The decrease in the reliability of Pemex's assets due to its budget constraints directly impacted its production costs," ASF concluded.



### COVID-19 Could Disrupt Maintenance Efforts

Pemex maintenance efforts could encounter staffing issues amid the COVID-19 crisis, Felipe Perez, IHS Markit downstream director for the Americas, told OPIS. In late March, the company began operating under stage four emergency protocols, which entailed only 10% of administrative, 25% of field and 40% of operational personnel required to be on site.

According to Pemex, it had 360 confirmed COVID-19 cases among its employees and retirees as well as 40 deceased and 2,400 suspected cases on April 30.

The personnel reduction could also pose a challenge considering the dated state of the Pemex refineries, Perez added. "These are not super modern refineries that can be run without people. They need a certain level of operators," he added.

As seen at U.S. refineries, large-scale maintenance efforts could be postponed while complying with social distancing efforts to help curb the spread of COVID-19. That could also impact efforts on Pemex's planned 340,000 b/d Dos Bocas refinery targeted for 2022.

## Pemex's Balancing Act

As oil demand falls in Mexico and around the globe, Pemex faces a difficult situation deciding whether to let its downstream or upstream operations suffer, Erick Tapia, a Mexico City-based independent energy analyst, told OPIS on April 24.

"Currently, Pemex needs to ramp up its refinery operations or shut down some fields with the risk of damaging them," Tapia said. However, the company has to sort with its longterm fuel supply agreements as it seeks to ramp up its refineries, he added.

Following orders from the Lopez Obrador administration in December 2018, Pemex's international marketing division, PMI, shifted its supply strategy seeking to secure better prices via long-term contracts.

"Before, around 60% of PMI fuel purchases were done via the spot market. However, around 80% is acquired today via long-term contracts," a source aware of PMI operations told OPIS on April 23.

As Mexican fuel demand fell combined with the country's limited storage capacity, the number of clean tankers waiting to offload at Mexican ports grew, reaching 70 vessels on April 23, data from Market Intelligence Network (MINT) by IHS Markit shows.

Amid this situation, Pemex Industrial Transformation (PTRI), the company's downstream division, declared force majeure

on April 22 over its fuel purchases from PMI, two sources close to Pemex told OPIS. Another industry source told OPIS on April 23 that Pemex stopped taking fuel shipments from the 340,000-b/d Deer Park, TX, refinery.

Pemex did not answer multiple comment requests from OPIS about the situation. Reuters reported on April 27 that Pemex was trying to renegotiate contracted cargoes scheduled for May and June.

"It might be difficult for Pemex-PMI to defend a force majeure on imports, a measure to delay payments at an international court, while at the same time it boosts refinery levels domestically," Tapia added. The situation could hurt PMI's financial standing and its reputation, he added.

The majority of ships stranded are blended to fulfill Mexico's needs. "These cargoes represent parked capital for PMI that won't be easy to recover by reselling them to third parties," Tapia said.

Most force majeures occur away from the public spotlight, but current market dynamics have buyers evaluating their options, said Debnil Chowdhury, IHS Markit executive director for North America refining, told OPIS on April 24.

"This issue isn't exclusive to Mexico, but it is happening all around the United States and the world as energy demand has dropped," he added. In April, media reported Flint Hills Resources declared force majeure on some of its crude purchases while India LNG importers issued force majeure on imports.

### Goverment to Support Pemex as Losses Pile Up

The Mexican government set a support package of 156.15 billion pesos (\$6.35 billion) to help Pemex sort the current difficulties, Alberto Velazquez, Pemex CFO, said on April 30 during the company's quarterly earning call.

This support package comes as Pemex lost \$24 billion during the first quarter, more than all its losses in the year earlier, despite paying 35% lower taxes than in the first quarter of 2019.

This includes an additional cut of the profit-sharing duty (DUC) of 65 billion pesos (\$2.6 billion). The effective DUC rate would be 39% from March to December, down from the 58% previously established for 2020. In 2019, this rate was 65%, he added.

"Petroleos Mexicanos has the absolute support from the Mexican government, and Petroleos Mexicanos gives its entire support to the Mexican government," Velazquez said.

Pemex will cut its investment budget by 45 billion pesos (\$1.83 billion). From this, 88% will come from upstream projects and the rest from other divisions, Velazquez said. "Pemex is going to prioritize its projects with a higher profitability rate," he added.

To date, the company has spent 21.1% of its 2020 investment budget of 332 billion pesos (\$16.7 billion), a figure that excludes the recently announced cut. The state company did not give any updates on the construction of its 340,000 b/d Dos Bocas refinery in its quarterly fillings or in its earning call.

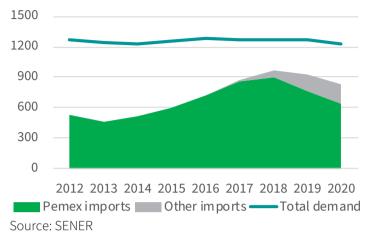
Pemex's worst-case scenario would be an average Mexican crude oil blend price of \$30/bbl for the year. The price of Mexico's crude oil closed on April 30 at \$9.4/bbl after

20

## Force Majeure Could Hit USGC Refiners: Analysts

The force majeure could be a hit to U.S. Gulf Coast refineries, Erick Tapia, a Mexico City-based independent energy analyst, told OPIS on April 24. These refiners depend on exports to maintain higher utilization rates, he added. U.S. EIA data shows U.S. overall refinery utilization rate was 67% on the week ended April 17, while PADD3 refiners including those in the Gulf Coast had the highest rate at 73%.

Gulf Coast refiners depend not only in Mexico but also Brazil and other European and Latin American nations, Debnil Chowdhury, IHS Markit executive director for North America refining, told OPIS on April 24. Mexico's Reliance on Fuel Imports Have Grown in Recent Years Amid Refinery Challenges (b/d)



"Refiners have shifted their yields as much as possible, and lower utilization rates could force them to shut down entire facilities," Chowdhury added.

Trading sources told OPIS on April 27 they worry how the force majeure could impact USGC spot prices as Mexico imported a 20% of finished gasoline and 8% of diesel produced in PADD3 in 2019, according to U.S. EIA data.

Commodities at Sea (CAS) by IHS Markit showed that Mexico imported 6.43 million bbl of gasoline and distillates in April, down from 13.3 million bbl in March. YOY, Mexico's imports fell 55% in April. "Even with current run cuts, refiners are still making way more than demand. If they don't pull the plug, they are going to have the same problem with products we have with crude right now," a trader told OPIS on April 27.

On April 22, 13 medium-range tankers were waiting at the port of Tuxpan, according to MINT. If all these are gasoline cargoes, OPIS estimated it could take close to 40 days for the 3.9 million bbl carried in the ships to be consumed across central Mexico based on the reported 60% drop in sales according to Onexpo and demand levels from previous year.

The latest available government data from SENER showed Pemex's gasoline output remained stable between March 15 and April 10 at around 240,000 b/d. However, with demand expected to fall 60% nationwide, according to ONEXPO, fuel imports could fall significantly in the coming weeks, analysts told OPIS.



## COVID-19 Turns Mexico Freight Rates Into a Rollercoaster

Shipping freight rates for clean cargoes to Mexico have been on a rollercoaster in recent months after the coronavirus disease 2019 (COVID-19) weakened demand for refined products.

Freight rate assessments for the U.S. Gulf Coast to East Coast Mexico (USGC-ECMX) route strengthened at the beginning of March, with limited tonnage talked about in the marketplace. Also, the lack of production cuts at OPEC kept global freight rates firm.

USGC-ECMX freight rate values climbed to around lump sum (LS) \$600,000 by March 10 and hovered above LS \$500,000 through midmonth. However, the second half of March saw USGC-ECMX freight rates deteriorate to around LS \$227,500 by March 31. Weak prices continued into early April as interest for ship owners remained limited during this period with the soft rates, as some started to eye longer hauls to lock in what some saw as better rates.

Midway through April, prices started to change with market rumblings about global storage capacity, floating storage and other routes, such as those to Europe, starting to firm and gain momentum and premiums. Around mid-April, prices had steadily climbed and continued through the rest of the month to hit around LS \$950,000 by April 27. About this time, the region started to see limited tonnage to charter as market players looked toward floating storage and time charters to lock in strong rates.

Limited on-land gasoline storage capacity to unload tankers waiting at ports along with those heading to Mexico further complicated market dynamics. By the end of April, tankers started to pile up in anchorage in regions outside of ports waiting to discharge. The lack of gasoline demand had caused pileups at ports such as Tuxpan and Pajaritos. For instance, there were 28 tankers waiting to load or discharge at Pajaritos at the end of April compared with around 10 tankers at the beginning of March.

The tanker pileups and lack of gasoline demand put the brakes on the lofty freight levels seen near the end of the month. Heading into very end of April and early May, prices started to soften as there were limited cargoes for the region. Also, market players noted that there may not be many cargoes heading to Mexico in May with tankers waiting to discharge at ports.



#### **OPIS USGC-ECMX Freight Rates Assessment**



Note: Rate is based on a lump sum payment for a 38,000ton cargo. Source: OPIS Mexico Fuel Report

## IHS Markit: Mexico's Energy Policy to be Tested in 2021

While navigating economic recovery, a slim possibility exists that Lopez Obrador could reverse course and promote private energy projects to bolster investment, Pedro Martinez, an analyst with IHS Markit's oil and gas risk group in Mexico City, told OPIS on April 17.

When Lopez Obrador considers a threat or menace is credible, he changes his mind, said Martinez. Despite initial opposition to detaining undocumented migrants, the president deployed security forces to the borders after U.S. President Donald Trump threatened to impose tariffs on Mexican imports.

Lopez Obrador faces an uphill battle to re-activate the economy after Mexico's GDP fell 0.1% in 2019, Carlos Cardenas, analysis director with IHS Markit's Latin America country risk division, told OPIS on April 17. Delaying major spending packages and tax breaks will make economic recovery more difficult, Cardenas added.

Changing course on private energy projects might be difficult due to the president's position, said Martinez, adding that since taking power, Lopez Obrador's ambition has been to return Pemex and CFE to be Mexico's dominant energy supplies. "By not granting downstream and midstream permits and suspending upstream auction rounds, Lopez Obrador achieved his agenda," he added. Likely, he will only allow already approved private upstream and downstream projects to move ahead, preventing Pemex from further losing market share, Martinez said.

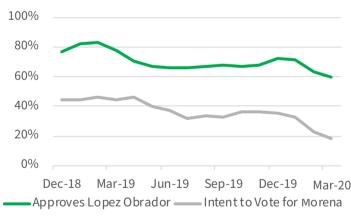
Since taking power, the president promised to leave legal framework around the energy reform untouched until 2021, giving time to prove the benefits of allowing private participation. This generated uncertainty whether Mexico will introduce major energy legislative changes that year, market participants told OPIS throughout 2019.

Currently, Lopez Obrador's MORENA party have enough seats to modify legislation requiring 51% of the votes, but MORENA needs congressional and state alliances to secure the two-thirds needed to reform the constitution. However, all 500 federal congressional seats will be on the election ballot during 2021 along with 32 state legislatures and 15 governorships.

"MORENA will face an uphill challenge if the political opposition uses the handling of COVID-19 and the perceived lack of support for their states as an opportunity to turn the election into a plebiscite against Lopez Obrador," Cardenas said. "However, the political opposition is weakened and divided. There is no single opposition leader at this moment politically benefiting from Lopez Obrador's decline in popularity," he added.

Political parties join what they perceive as the most likely alliance to win the next presidential election. If MORENA loses in 2021 and Lopez Obrador's approval weakens, it will be difficult to see smaller coalition parties supporting the president, Martinez said. Losing its congressional majority would force Lopez Obrador to negotiate with political opponents to approve federal budgets, Martinez said. This could lead to opposition parties requesting to allow further private energy investments or cut funding for refining projects such as Dos Bocas.

#### MORENA's Popularity Falls Despite High Approval for Lopez Obrador



Source: El Financiero business newspaper



## About the authors



#### **Daniel Rodriguez**

Senior Editor, Mexico Fuel Markets OPIS by IHS Markit daniel.rodriguez@ihsmarkit.com +52-55-6931-5581 Twitter: @dl\_rod

Daniel Rodriguez has covered energy markets for four years with a primary focus on Mexico's energy reform with OPIS and previously with S&P Global Platts and Calgary's Daily Oil Bulletin. Born in Caracas, Venezuela, he graduated in 2017 from the journalism undergraduate program at Mount Royal University in Calgary, Canada, with a minor in economics and finance. Daniel has reported on critical landmarks in Mexico's upstream, downstream, natural gas and power markets.



#### **Justin Schneewind**

Market Editor, U.S. Midwest and Mexico Fuel Markets OPIS by IHS Markit justin.schneewind@ihsmarkit.com

Justin Schneewind has more than five years of experience in the energy industry, with roles in petrochemicals, natural gas and refined products. He covers U.S. Midwest refined products markets at OPIS and contributes news and analysis to the OPIS Mexico Fuel Report. He has an MBA from the University of Houston's C.T. Bauer College of Business and an undergraduate degree in journalism.

#### **Eric Wieser**

Senior Editor, Americas Freight and Marine Fuels OPIS by IHS Markit eric.wieser@ishmarkit.com

Eric Wieser covers shipping and marine fuel markets at OPIS. He covers Mexico freight rates and commentary on a daily basis. Wieser has covered various aspects of the energy markets and policy for over 20 years. He previously covered the power, natural gas and renewable markets for nearly 16 years at S&P Global Platts.

	Retuz Minus > Patos > Witt pGod Wholesale • U		ossed Wholesale	Options -	/17/2019 10/1	62019 10/15	2019			
12 I I	State T	Husicipality T	Territad T	Terreitsai State	(Jabya Antai). #	ndiad Rack'≑	Prez Antañ. ‡	nina Rack* o	Oies Retail #	el Rack* 9
	NAMET	LAYESON	SARGAS	JALISBO	72.99	21,7965	1441		23.99	22,7502
	JALISCO	SAK SEBASTIAN DEL DESTE	ZAPOPAN	JAUSCO	21.65	20.4207	22.69	21,4027	22.35	21.0745
	HUEYD LIIÓN	RAYDNES	BADEREVTA IMBZ	ARREVO LIBÓN	21.55	20.3771	0.000			
	MUSCO	AUCOCOTA	2420944	JAUSCO	21.53	20.3041	22,733	22,4491	22.477	21.2047
	NICHERICAN DE DEAMPO	CHARLOWED	LIRUSARIAN	MACHOAGÁD DE DICAMPO	21.52	20.3249	12.89	21.6369	22.96	21.7185
	CHOREMAN	URIQUE	PARTAL	OHDHEMAHISA	21.5	10,2159	· · · · ·	-	22.5	21.1694
	ESTABO DE MÉXICO	TLATLAYA	TOLLICA	CIVERED DE HÉOCO	71.5	20.3015	(***-		23.2	21.9551
	AALASICO	AJEMANAC DE BRIZVELA	24.9094K	AND BED AN	313	30.1175	22.2	10.9555	22.65	21.4211
Concession in co	CHALENO	GUADALUPE Y CACYO	PARRAL	CHEHIJAHIJSA	21.269	20.0249	22,02	20.7219	22.314	21.0275
	GLANAJUATO	PURISING DEL BENCON	LECAN	GUANAISATO	23.223	10.093	22.62	21,432	22.31	21.1336
	GUERRERD	PUNGARABATO	IGUALA	GLERRERO	21,217	20.0049	12.857	21.5869	22.857	21.5985
200 L	DAXAGA	SAN MUAN CADRAD	CANAGA	DAXADA	717	19,9931	32.17	20.9051	22.95	21.6967
	GUERRERO	AJUCHITLAN DEL PROGRESO	IGUALA	GUERAERO	21.2	10.9977	12.85	31.5397	22.85	21.6013
	GUERRERO	COYUCA DE CATALAN	IGUALA	GUERRERD	21.2	19.9859	The state		22.85	21.5895

# Price transparency and insights to capitalize on the cross-border fuel trade

Uncertainty is the common denominator in Mexico's liberalized fuel market. Governmental policy changes reverberate across the supply chain. OPIS provides fuel buyers and sellers from upstream to downstream with the unbiased price discovery and analysis needed to make more profitable decisions during this volatile period.

#### **OPIS Mexico Fuels Report**

## Price visibility and insight you've been missing, delivered every day

OPIS Mexico Fuels Report provides a comprehensive daily pricing index that evaluates the landed spot price of refined fuel shipping from the U.S. Gulf Coast and U.S. West Coast to Mexico. Discover the full value chain for imported fuel in Mexico.

Data sources for landed spot fuel in Mexico have been limited, opaque and often inaccurate. This lack of price transparency becomes an even greater obstacle as energy reform increases supply chain diversity. OPIS now delivers an exclusive solution with an accurate assessment of true cost build-up, including RVP and octane differences between Mexico-delivered fuel and the benchmark U.S. spot index.

- Make smarter buying decisions using our indexes for gasoline, diesel fuel, jet fuel and oxygenates, revealing the true build-up cost of cross-border fuel shipments
- Discover daily price arbitrage between the U.S. Gulf Coast pipeline spot market and Pemex-posted wholesale prices. Know where the best buys are regionally
- Use our new indexes for accurately pricing cargos and for valuing RVP and octane differences between U.S. and Mexico blends
- Identify the most accurate price point for each import area when securing contracts
- Receive timely news coverage of Mexican energy reform and infrastructure growth



### Photo Atribution

Cover page: Mexico City afternoon without people, by Panda. Adobe Stock. Executive Summary: Satelite Towers Mexio City, Photo by Luis. Adobe Stock. Page 2: Mexico City afternoon without people, by Panda. Adobe Stock. Page 5: An empty KCS train going through two waiting coal trains at Saginaw, Photo by Kurt Haubrich, under CC BY-ND 2.0 Page 6. Roberto Diaz de Leon. Photo by

ONEXPO. Page 9: Hugo Lopez Gatell at Mexico's presidential palace, April 23, 2020. Photo by Andres Manuel Lopez Obrador's communication team.

Page 10: President Lopez Obrador visits refinery, June. 2019. Photo by Andres Manuel Lopez Obrador's communication team.

**Page 11:** Coatzacoalcos refinery. Photo by Pemex Logistica.

Page 13: Screenshot of MINT by IHS Markit of clean tankers waiting to offload in Mexico on May 4, 2020.

Page 15: Vopak marine terminal in Veracruz on November 2018. Photo by

Koch Industries.

Page 16: Museo Universitario el Chopo, March 22, 2018. Photo by Eneas de Troya, under CC BY 2.0.

**Page 19:** Dos Bocas refinery construction site. Photo by SENER.

**Page 22:** Fuel storage terminals. Photo by Pemex Logistica.

Page 23: Andres Manuel Lopez Obrador campaigning in Chiapas state, 2018. Photo by Andres Manuel Lopez Obrador's communication team.

Oil Price Information Service (OPIS) by IHS Markit provides price transparency across the global fuel supply chain so that all stakeholders can buy and sell oil products with confidence. We do this through accurate pricing, real-time news, powerful software tools and educational events and training. Our commitment to reliability is reinforced by worldclass, personalized customer service and constant innovation. OPIS listens to what customers need and responds with flexible and easy-to-use solutions. Navigating world oil markets is complex – OPIS makes it simpler. Learn more at opisnet.com.

## Contact OPIS

About OPIS

Tel: +1 888.301.2645 (toll-free within the U.S.) +1 301.284.2000 or Mexico City (local) +1 55 3067 0300 Email: energycs@opisnet.com



<u>itter</u> in

Share this on LinkedIn



Share this on Facebook

## **IHS Markit ExpertConnect**

From the shop floor to the C-Suite and at every level, our customers benefit from our breadth and depth of expertise. Our global team of subject-matter experts closely follow global and local markets and offer a balanced perspective on forces impacting your industry. When your success depends on it, choose trusted advisers that you can rely on for market insights and accurate data.

In uncertain market conditions, ExpertConnect is here to help. Get started and book a consultant today. IHS Markit now offers ExpertConnect, a new on-demand consultation service to provide rapid, actionable answers.

Examples of frequently-requested consults:

- Get perspective on emerging market and economic changes
- Review your business headwinds and priorities to help shape a strategy
- Identify new market opportunities amidst change

#### 600+ Experts Available for Consultation



Daniel Yergin, Ph.D. Vice Chairman, IHS Markit



Gustavo Ando VP, Industry Services & Life Sciences, IHS Markit



Anna Boyd Associate Director, Economics & Country ' Risk, IHS Markit