SPECIAL REPORT ON MEXICO

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This research has been conducted by Alice Pascoletti, Matthias Lomas and Sorina Dumitru of Global Business Reports. For more information, contact info@gbreports.com. Cover photo courtesy of Grupo Idesa.

SOLID DEMAND FACTORS BUT POLITICAL RISK RISING

A SPECTRE HAUNTS MEXICO

'It was the best of times, it was the worst of times'. Looking back at the current period, it might be tempting to refer to Mexico's economy and wider macro picture by using Charles Dickens' famous epithet. On the one hand, compared to its major Latin American peers, Mexico's economy has performed reasonably well in recent years, given that Brazil is crawling out of its worst ever recession, while Mexico has chalked up an average of 2.5% annual GDP growth over the last two years. Mexico has also amassed real manufacturing prowess: it is now the fourth largest vehicle exporter in the world, for example.

On the other hand, there is an encroaching sense of uneasiness among business leaders. True, the economy is doing reasonably well, but GDP growth slipped from 2.9% in 2016 to 2.1% in 2017, a significant slowdown. In fact, industrial production fell in nine of the 12 months leading up to October 2017. Furthermore, the United States is driving a hard bargain in the NAFTA negotiations which has unsettled some investors. More significantly, Mexico is due to hold presidential elections on July 1st 2018, and the current frontrunner, Andrés Manuel López Obrador, has threatened to scrap investor friendly policies such as the landmark 2013 energy reform.

Other factors dampening the mood are that 2017 was the most violent year on record and the government has been carrying out a fiscal consolidation program which has led to a curtailing of its infrastructure spending that has acted as a drag on the economy. Investors are generally more worried about the prospect of Obrador's left-wing populism than they are about NAFTA. Underscoring this, Focus Economics' consensus forecast of economists predict Mexico's GDP growth will be 2.2% in 2018, which is lower than forecasts for all other Latin American countries except Ecuador and Venezuela. "The elections next year are more worrying than the NAFTA renegotiations. There are some dark clouds forming around NAFTA but this is unlikely to affect the chemicals industry greatly," remarked José M. Berges, CEO of leading Latin American distributor GTM, speaking in 2017.

MEXICO REVS UP ITS ENGINE

Mexico's consumption of chemicals rose by over a fifth from 2012 to 2016. Two key factors mean that demand for petrochemicals and chemicals in Mexico are strong and will remain so going forward. First is a rising middle class: according to Euromonitor International, 47% of households were in this category by 2015, equivalent to 14.6 million households, and this number is set to rise to 18 million by 2030, equivalent to all the households in Spain. Such households devote almost half of their budget to discretionary goods and services, like food and alcoholic beverages and personal care, as well as having more money to spend on household goods; all products with a high demand for thermoplastic resins, as well as specialty chemicals.

There is also an increasing demand for chemicals from food and feed which points to growing food demand and agricultural market in Mexico. "Food and feed, water treatment, household and personal care are some of the key high growth industries for us… A growing middle class with more disposable income as well as the growing global requirement for food and clean water are some of the main growth drivers behind this," explained Eugenio Gerardo Manzano Alba, executive director of fast-growing Latin American distributors Pochteca.

There is still a large gap between middle class incomes and those of the highest earners, with the middle class being closer to the poor in income level. Despite Mexico's leading position in the production of cars and home appliances, less than half of middle income households own a car and dishwashers are a rare luxury. Therefore, domestic demand is not necessarily driving industrial production. This situation points to another important demand driver for chemicals in Mexico, namely export growth. Exports grew by 13.2% in the first ten months of 2017, with consumer goods rising by the most (18%) and automotive exports rising by 12.1%. Aerospace is another important driver, with the value of exports rising from US$3 billion in 2008 to around US$7.5 billion in 2016.

These industries demand chemicals such as lubricants and paints and coatings, which is good news for the chemical industry. "We also have dedicated teams to serve basic industries like automotive and general manufacturing, where there is a large demand for lubricants, metalworking fluids and other chemicals. Mexico exports more manufactured goods than the rest of Latin America combined," continued Manzano.

RECOVERING EXTRACTIVE INDUSTRIES

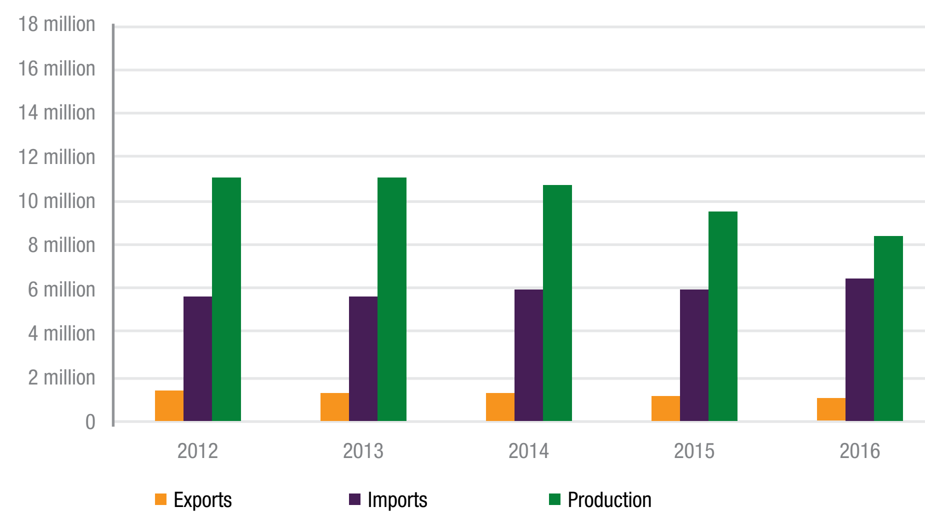
Any analyst of the extractives industries knows they go through dramatic cycles, and Mexico is no exception. The country's main mineral commodities are gold, silver (Mexico is the world's largest producer), copper and zinc which took a hit during the end of the commodity super-cycle since 2014 but have recovered more strongly than other minerals. The gold price, for instance, had its best year since 2010 in 2017. Buoyed by these trends, Mexico experienced a 50% year-on-year increase in mining investment in 2017.

A stronger gold and silver market has been welcome news for the chemical sector given that sodium cyanide is used to extract the minerals. Evonik and Grupo Idesa have reaped the benefits through their joint-venture to produce sodium cyanide in Mexico and GTM recently signed a partnership agreement with Chemours to distribute the compound. "If gold and silver production in the country and Mexico continue to develop positively there will be the opportunity to expand our business to support our customers. Mexico is the most important market in terms of sodium cyanide in the world given that it is a leading producer of gold and silver," commented Martin Toscano, president of Evonik Industries de Mexico.

Mexico's oil and gas industry was completely dominated by Pemex, the state-owned company, until President Peña Nieto's 2013 landmark energy reform. Most analysts hailed the move given Pemex had become increasingly inefficient and production levels had dropped. Players in the petrochemical industry believe the reform will lead to oil and gas production rising again as private players enter into the market. This is gradually filtering through to more demand for chemicals. "Unfortunately, sales for oil and gas have suffered over the last few years as the industry has declined dramatically. We see signs of recovery and have placed some first orders for the end of the year," remarks Berges.

The outcome of NAFTA and the elections later in 2018 are potential risks on the horizon, but deep structural factors such as Mexico's diversified economy, buoyant industrial production and growing middle class should keep demand for petrochemicals strong in the coming years. "Our expectation for the Mexican petrochemical industry is for gradual growth supported by imported raw material. Three basic industries continue to grow in Mexico: automotive, agriculture and aerospace. These industries support additional petrochemical demand growth," says Rina Quijada, director business development Latin America at IHS Markit.

PRODUCTION VOLUME OF THE PETROCHEMICAL INDUSTRY, 2012-2016



ANIQ, National Institute of Statistics and Geography (INEGI), Pemex and the Energy Information System of the Secretariat of Energy
** Based on the External Trade Information System (SICM) of the Secretariat of Economy.

PERFORMANCE OF THE PETROCHEMICAL INDUSTRY

BRASKEM IDESA PUTS MEXICO ON THE MAP

Before the energy reform in 2013, the production of basic petrochemicals was reserved to the Mexican state through Pemex. Mexico's petrochemical production had been in decline for decades after Pemex decided to invest less in the industry after Mexico joined the General Agreement on Tariffs and Trade (GATT) in the early 1990s and then NAFTA in 1994, which meant its market became flooded with petrochemical products from abroad. This not only meant Pemex produced less basic petrochemicals but also that the private sector in Mexico invested less in downstream capacity.

Therefore, the move by Braskem Idesa in June 2016 to open a new 1.05 mt/y integrated polyethylene complex in the state of Veracruz, the outcome of a US$5.2 billion investment, was a cathartic moment for the industry. The project, named Ethylene XXI, is the result of a joint-venture between Brazilian petrochemical producer Braskem, the largest petrochemical company in the Americas, and Grupo Idesa, one of Mexico's largest petrochemical companies. One of the primary reasons for the complex's construction was to help plug Mexico's gaping trade deficit in polyethylene, replacing US$1.5 to US$2 billion of polyethylene imports. The scale of the project is immense. As Stefan Lepecki, CEO, Braskem Idesa, puts it: "The project is the most significant project ever in Latin America and even in North America there has not been a project like it for twenty or thirty years."

So far the results of Ethylene XXI have been positive. According to José Luis Uriegas, CEO of Grupo Idesa, the rate of operation was above 90% in 2017 and on average Braskem Idesa sells around 80,000 mt per month. As of November 2017, the company had already sold 1.2 million mt/y of polyethylene and it now has a 43% market share of high and low density polyethylene in Mexico. There have been some hiccups as run rates fell slightly in Q3 and Q4 of 2017 due to supply issues with Pemex but Braskem Idesa is confident these issues will not cause problems going forward. "In the oil and gas market it is important to maintain a good level of investment to sustain production rates. This will therefore be important for Pemex going forward. We work very closely with Pemex and are very confident in their ability," remarked Lepecki.

Ethylene XXI is also significant because it has showed what Mexico is capable of and put it on the map in terms of petrochemicals production. "The investment is very important because it sets a precedent that, as an industry, we have not had for the last 25 years. It has precipitated the opening of new projects and generated the conditions for long-term contracts in the industry," commented Miguel Benedetto Alexanderson, general director, National Association of the Chemical Industry (ANIQ).

STILL NOT ENOUGH

Despite the success of Braskem Idesa, Mexican chemical production has continued to decline in recent years, even after Ethylene XXI began operating. According to ANIQ, the volume of petrochemical production fell from around 9.67 million mt/y in 2015 to 8.47 mt/y in 2016, whilst imports grew by 7.8% and exports decreased by 11.9% in the same period. Regarding polyethylene, the commodity Braskem Idesa produces, high density polyethylene production decreased by 28% from 2015 to 2016 and low density polyethylene decreased by 12.6%. To help fill the gap, imports of polyethylene increased by almost 30% in the first ten months of 2017, compared with the same period in 2016.

Moreover, according to ANIQ, production declined from 2015 to 2016 for all major categories of petrochemicals, namely derivatives of methane, derivatives of ethane, aromatics and derivatives, propylene and derivatives, and ethylene. Interestingly, despite the scale of the Braskem Idesa project, private production of petrochemicals actually declined from 2.41 million mt/y to 2.34 million mt/y in the same period. Unsurprisingly, Mexico had a sizeable trade deficit in petrochemicals of US$5.4 billion in 2016, and trade with the United States accounted for US$3.45 of that total.

A large part of the problem lies in Pemex's decreasing production rates of basic petrochemicals and declining refining capacity. Its total production of basic petrochemicals declined a whopping 17.6% in 2016, and its ethylene production by almost 12% in 2013 to 2015, according to ANIQ. All of Mexico's crackers are ethane based but Pemex decided when the oil price was high to invest in oil rather than gas, meaning its production and refining capacity of gas has been severely limited. In fact, since 2010, Mexico's natural gas production has decreased from about 84 billion cubic feet per day (bcfpd) to 70 bcfpd in 2016. This is impacting Mexico's entire chemical supply chain. "Unfortunately Pemex's refineries are not


Stefan Lepecki, CEO, Braskem Idesa


Jose Luis Uriegas, CEO, Grupo Idesa

operating efficiently and probably only at 30% capacity, so there is not enough propylene available. Indeed, Mexico imports 70% of its gasoline needs. Therefore, we stopped our partnership with Pemex and now import methyl methacrylate (MMA) from Brazil," said Abraham Klip Moshinsky, general director of Unigel Mexico, which used to produce MMA in Mexico.

Furthermore, companies that rely on ethylene oxide have suffered as a result of Pemex's reduced output, volumes of which fell by 8% from 2013 to 2015. "Some companies are operating at 50% capacity because there is not enough ethylene oxide," continued Moshinsky.

THE REVOLUTION WILL BE HERE SHORTLY

With Pemex stumbling, it is in this context that the Peña Nieto administration launched the ambitious energy reform in 2013. Whilst the energy reform has great potential to improve Mexico's supply of feedstock, change will happen slowly. In the most significant auction since the reform, in January 2018 Royal Dutch Shell won nine of the 19 deepwater Gulf of Mexico blocks available. Malaysia's state oil firm Petronas also won six of the winning bids and Qatar Petroleum won five bids. Ironically, Shell produced more than 60% of Mexico's oil production before all foreign assets were expropriated in 1938 and Pemex was formed. Now, Mexico's Secretariat of Energy believes the latest auction could bring U$93 billion of investment into Mexico and has the potential to add 1.5 mbpd of crude oil and 5 bcfpd of gas by 2032.

Previous auctions have also resulted in promises of US$61 billion from the winning companies. However, the government estimates $600 billion is needed to bring Mexico back to record production levels reached in 2004, meaning Mexico is still a long way from this goal. According to Moshinsky: "Once there is more oil and gas production, private players will be willing to invest in refurbishment of refineries."

That will take a while to materialize, however, given that first production at the most recent auctioned blocs is not expected before 2028. Whilst some production will come sooner, it will not be enough to change the dynamics of domestically produced feedstock in Mexico. Nor has Mexico seriously sought to develop its shale gas potential, even as it produces less gas.

To plug the void in refining capacity, in a symbolic move Pemex, for the first time, started importing ethane from abroad in January 2018. It imported 4,200 mt from Texas at spot prices and another shipment is due in February 2018, with analysts saying Pemex may opt for a medium to long term contract if things go well. This is especially important for Pemex given it has a 20 year supply contract to supply Braskem with ethane at 68,000 bpd and it also has to supply its two ethylene plants at the Cangrejera and Morelos complexes on the Gulf of Mexico. Until oil and gas production increases in Mexico, Pemex's spot imports are likely to portend the next few years.

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TRADE AGREEMENTS

NAFTA: OPPORTUNITY OUT OF CRISIS

When President Trump was sworn in as the 45th President of the United States, there was a mood of unease, even fear, among Mexican businesses given Trump had threatened to scrap the NAFTA. Trump's position rested on the negative effects of the United States' over US$64 billion in 2016 trade deficit with Mexico and that claimed that America was losing manufacturing jobs to Mexico. In the firing line was Mexico's automotive production; a key plank of US' demands is that the content requirement for autos produced in North America increases and that half of all content be produced in the United States.

NAFTA has been hugely important in the growth of Mexico's manufacturing industries. In terms of the chemicals industry, since NAFTA came into effect trade in chemicals between NAFTA countries has more than tripled from US$20 billion in 1994 to US$63 billion in 2014, according to ANIQ and its equivalent associations in the United States and Canada.

As of February 2018, six negotiating rounds have been completed and, although there has been some progress, thorny issues such as rules of origin in the automotive sector, the sunset clause and the export of crops to align with the seasonality of produce in the United States are still proving intractable. One would be forgiven for thinking the Mexican, US and Canadian chemical industries would be fretting about the potential negative implications on their businesses should the talks break down or their countries get a bad deal.

However, this certainly does not appear to be the mood among chemical industry players in Mexico. The Mexican Chemical Industry National Association (ANIQ) is leading negotiations for the chemical sector and rules of origin for all the industrial and agricultural sectors in Mexico. According to its general director, Miguel Benedetto Alexanderson: "The chemical industries in the three countries are broadly in alignment."

When NAFTA was founded in 1994, Mexico's energy and basic petrochemicals industries were completely dominated by Pemex. Due to Pemex being a state owned company, Mexico exempted itself from most of NAFTA's chapters on investment on energy and basic petrochemicals in order to forbid any private investment into its energy industry. However, since the 2013 energy reform, Mexico's energy industry has been opened up to competition, both foreign and domestic. Therefore Mexico now has the opportunity, if the agreement stands, to more actively engage in NAFTA's provisions on energy and petrochemicals.

In a joint statement made by the Chemistry Industry Association of Canada (CIAC), the ANIQ, and the American Chemistry Council (ACC), the chemical industries of the three countries call for "strong protections for cross border data flows, which is an essential element of global value chains. An updated NAFTA should also set key standards, such as on the competitive practices of State Owned Enterprises (SOEs). It should also close inefficiencies on trade disciplines that are already codified in the agreement, including rules of origin and duty drawback." Time will tell if all these goals will be met or if, as Martin Toscano, president, Evonik Industries de Mexico, predicts "the outcome will be similar to what is in place now but we will probably miss the chance to upgrade the agreement."

Another reason that the Mexican chemical industry is relatively sanguine is that the United States' trade with Mexico is actually an example of American exporting strength. In 2016, the value of US energy exports to Mexico was US$20.2 billion, more than twice the value of energy imports from Mexico which were US$8.7 billion.

TRADING PLACES

Along with putting significant resources into the NAFTA renegotiations, Mexico is pursuing trade diversification. This follows a trend of successive Mexican governments being open to free trade and it already has 44 free trade agreements with countries around the world. According to Uriegas, it is a key advantage: "It means producers benefit from lower duties and the absence of non-tariff barriers. For example, we have a trade agreement with Israel which has allowed us to gain 65% stake in the ethanolamines market in that country."

Mexico and the European Union are about to upgrade the EU-Mexico global agreement which includes economic as well as political issues. "If we do not get an agreement the conditions will be the same as now, which will mean no great impact. Nevertheless, we believe we will have an agreement as we have been liaising with our equivalent the European Chemical Industry Council and through this have agreed with the 27 EU countries on rules of origin," said Benedetto.

Furthermore, in 2018 Mexico and Brazil are due to conclude a comprehensive free trade agreement where the chemical industry will make up 75% of the total agreement, according to ANIQ. The Mercosur trade bloc of South American nations is also prioritizing improved trade ties with Mexico and Mexico and Argentina are discussing a free trade agreement. Additionally, on March 8th 2018, the Trans Pacific Partnership will be signed, without the United States, which will be very important for access to Asian markets for the Mexican chemical industry. Such moves could end up proving especially popular with the Mexican chemical industry if NAFTA talks were to collapse. "Regarding NAFTA, if we have to start paying taxes on imports from the United States, we will just look for more Chinese, Indian or European products where there is no duty," said Johnny Silva, managing director of distributors Disan Mexico.

CHEMICAL DISTRIBUTION AND LOGISTICS

WELCOME TO THE PARTY

If the situation for Mexico's petrochemical industry is not exactly rosy, the same cannot be said for the chemical distribution market. Although Mexican production of petrochemicals is declining, consumption of chemicals is relatively buoyant and has increased in volume terms by over 20% from 2012 to 2016; from about 33.6 million mt/y in 2012 to 41 million mt/y in 2016, according to the Mexican Chemical Industry National Association (ANIQ). Miguel Benedetto Alexanderson, general director of ANIQ, said: "For the last 15 years the chemical distribution market has been growing at twice the rate of GDP, so around 5% per year... We expect growth of twice GDP in the next ten years."

However, the comparison between volume and value of sales of chemicals is revealing as the value of sales actually fell slightly from US$35.7 billion in 2012 to US$35.5 billion in 2016. Nevertheless this picture may now be changing, as the market is becoming tighter. As Johnny Silva, managing director of distributers Disan Mexico, explained: "Over the last decade, chemical prices went down and it

was a buyer's market. However, over the last nine months, the whole chemical market changed and now it is the other way around. Now strategic buyers want to talk with us about availability and security of supply."

Mirroring a trend happening across Latin America, another major transformation currently underway is that of consolidation as Mexico's chemical distribution market attracts the attention of international players. Some notable examples include Texas-based Nexeo Solutions' acquisition of local player Ultra Chem in 2017, GTM's entering into the market with its purchase of High Chem Specialties México in 2016, and Brenntag's acquisition of Amco International in 2012. "The participation of distributors is less in Mexico compared with the United States or Europe so we have been trying to encourage more distributors to enter the market," continued Benedetto, suggesting there is more room for consolidation.

It is not just international players that have been driving consolidation. Pochteca has become one of the leading chemical distributors in Latin America as a result of acquisitions, including a string in Mexico, such as Shell's lubricants assets in 2010, inorganics specialist Mardupol in 2013 and specialty distributor Conjunto Lar in 2017. "Distribution in Latin America represents an incredible opportunity, with growth of 8% to 10% and consolidation will continue. We will be in this business for the long term and will continue to invest. We are in the right region, in the right industry and in the most dynamic part of the value chain; it is a bright future," remarked Eugenio Gerardo Manzano Alba, executive director, Pochteca.

OPEN TO THE WORLD

Predictably, given declining petrochemical production in Mexico, much of the lifeblood of distributers is imports. As Mexico imports more chemicals, demands for storage are increasing, meaning good news for chemical distribution in Mexico. At the same time, the energy reform has transformed the importation market for oil and gas as previously only PMI Comercio Internacional, Pemex's international trading company, was allowed to import products like gasoline and diesel. Oiltanking México is taking advantage of this trend and will operate two terminals and a pipeline for the storage and transportation of diesels and gasolines. According to Richard Ricardo Diogo, director business development, Oiltanking México, "The demand for fuels and gas has meant more attention generally on the wider market and this has pushed up more foreign investment into chemicals."

The demand for fuels has taken away some capacity for chemical storage and driven up demand for services in this area, just as imports of chemicals are expected to rise. "For the short and medium term, we foresee more imports coming into Mexico from both the oil and chemical sides," said Ralf van der Ven, commercial and business development director, Vopak Americas.

KEEPING UP TO SPEED

In fact, the increasing imports come at a time when Mexico's infrastructure in general is struggling to keep up. In the first half of 2017 there was major congestion at some of Mexico's ports, in particular the Port of Veracruz, a significant port for importing chemicals. Martin Sack, director general of freight forwarder Lescharco, which specializes in logistics for the chemical industry, believes that the infrastructure is not good enough: "Too much cargo is being moved by truck and rail infrastructure, whilst getting better, needs to be greatly improved. Highways also need to be upgraded, especially those connecting ports with Mexico's hinterland. Next year we expect major growth of capacity at ports, such as a new terminal at the Port of Veracruz and additional capacity at the Port of Manzanillo."

As Mexico's economy continues to mature and as long as it continues to pursue a highly proactive free-trade policy, logistics companies will continue to grow. Silva sums up the positive sentiment: "Mexico is the biggest opportunity in Latin America. From here you can import chemicals from everywhere as Mexico has free trade agreements with many countries. There are very few import taxes on chemicals…"