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Mexico 101

The 2024 Country Handbook

In your hands is the much-anticipated Mexico 101 in its 2024 edition. The intention of this long-standing Economics & Equity Strategy collaboration is for it to become your go-to reference when thinking about investing in Mexico, regardless of whether you are a dedicated investor in the country or are looking at it for the first time. Inside you will find detailed information on Mexico's economics, politics, financial markets, social development, and key economic and corporate sectors. Please see inside for details.

Mexico Equity Strategy

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com
J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero

Ana Pous Avila
(52-55) 3261-9391
ana.pousavila@jpmorgan.com
J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero

Mexico Economics

Gabriel Lozano
(52-55) 5540-9558
gabriel.lozano@jpmorgan.com
Banco J.P.Morgan, S.A., Institución de Banca Múltiple, J.P.Morgan Grupo Financiero

Steven Palacio
(52 55) 5283-1651
steven.palacio@jpmorgan.com
Banco J.P.Morgan, S.A., Institución de Banca Múltiple, J.P.Morgan Grupo Financiero

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See page 144 for analyst certification and important disclosures, including non-US analyst disclosures.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

J.P.Morgan

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Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Mexico 101

We intend for this handbook to serve as a useful primer and reference guide for all those looking to better understand and invest in Mexico.

Adrian Huerta & Gabriel Lozano

Key Macro Forecasts

After an eventful six-year term (2018-2024) in which the pandemic took center stage in 2020 amid a complicated start for the Morena administration that experienced a recession even before the lockdown, a hefty recovery took place in 2022 on the back of pent-up demand and with the indirect support of investment rotation away from China.

A resilient US economy has fueled an expansion south of its border that in 2021 was expected to be a major laggard within Latin America given erratic policies from an administration too focused in discretionary spending, curbing private investment, and denting polices and institutions aimed at greater accountability given President Lopez Obrador's (known as AMLO) poorly-designed policies to curb corruption.

Still, as investors looked away from the pandemic and into a less uncertain environment in which USMCA replaced NAFTA (in 2020), the economy expanded at a 3.5% pace between 2022 and 2023 on the back of two engines of (domestic) growth. We now expect the economy to grow 1.8%y/y this year as public spending wanes and external demand (away from the auto sector) softens. With the economy seemingly entering the mature phase of its business cycle and new challenges arising given the lack of fiscal discipline and a number of trade tensions with its regional partners, we see a complicated 2H24 and an even more uncertain start for President Sheinbaum.

Mrs. Claudia Sheinbaum, soon to be the first woman president in the history of Mexico, won with almost 60% of the votes, leading the incumbent party to a second consecutive six-year mandate. The strong win also echoed strongly in the legislative ballots, ensuring the incumbent party a constitutional two-thirds majority (supermajority) in the Lower House, a scenario nearly mimicked in the Upper House.

This strong mandate will ensure the continuation of the AMLO agenda (known as the Fourth Transformation, or 4T) from heavy discretionary spending to populist policies intended to extend the strength of the party across the country. More concerning, both AMLO and Sheinbaum have flagged their intentions to implement constitutional amendments in order to alter the balance of power in the country, particularly the judicial system.

With fiscal policy becoming increasingly loose between 2018 and 2024, we expect the Sheinbaum government to launch a fiscal plan intended to tackle a fiscal deterioration that could otherwise result in credit rating downgrades in the next couple of years. In opposite directions, monetary policy finally turned slightly less restrictive at the start of the year on the back of more benign inflation dynamics and considering extremely high real (ex-ante) policy rates above 7%.

Other domestic and external risks are worth emphasizing. The incoming government's agenda is circled around the founding member of Morena, who continues to emphasize the need to weaken the institutions built in the years that led to his big win in 2018.

While this agenda contains important elements aimed at improving short-term conditions of lower income classes (annual 20% minimum wage increments; lump-sum transferences to the elderly and the young), it also aims at reducing the influence of the Judicial system – which blocked a number of initiatives approved in the last years – and autonomous institutes that have gained credence between 1994 and 2018. The market reaction in the last couple of weeks reflect investors' concerns on the institutional framework of the country.

Finally, the review of USMCA scheduled for July 2026 is expected to gain relevance as the US election gains relevance. Still, we see this as an unbeatable opportunity to dust off some of the pending themes that should give Mexico the opportunity to cash in on some of the opportunities related to global investment relocation that so far have been modest given the above-mentioned institutional uncertainty.

Table 1: Macro Summary

	2022	2023	2024E	2025E
GDP Growth (%oya)	3.9	3.2	1.8	1.3
Consumer Inflation (%oya)	7.9	4.7	3.8	3.7
Current Account Balance (%GDP)	-0.9	-0.3	-0.9	-1.3
Fiscal Balance (%GDP)	-3.9	-3.5	-5.1	-3.5

Source: J.P. Morgan.

Equity Strategy View

Despite the recent election-related movements, we see Mexican equities at an attractive entry point valuation-wise (-1.8SD vs. historical). We believe that severely punishing the market today based on possible reforms that could have an impact on the country's democracy in the long term seems excessive, especially considering that measures taken by Morena, and more specifically AMLO, so far, haven't posed a material risk to equities. This does not mean we do not see

real potential risks for the market coming from decreased support for foreign and national private investment, additional tax regulation on certain sectors, potential changes to the pension system, removal of concessions, among others. For now, we remain comfortable with our relative Neutral stance on Mexican equities in our LatAm portfolio and see the market returning at least to the levels it was prior to the election (+3% upside) and potentially even to our base case scenario of 58,000 (+9% upside) by year-end.

U.S. exceptionalism, strong macroeconomic fundamentals, and the near-shoring thematic provide support to Mexican equities in the short to mid term. The former could start to show signs of a potential slowdown, but Mexico should continue to benefit from the re-edition of "America First" now that it is the US's most important trading partner. However, we note that there could be some volatility ahead of the US election in November as the potential for another Trump administration (which we wouldn't necessarily view as negative) weighs on markets. For the latter two points, we continue to expect economic activity to hold on with inflation yielding some, remain OW on the MXN, and keep our bullish stance on the near-shoring thematic, at least until we have more information on the new administration's strategy to attract investments and de-bottleneck pending issues such as water and electricity. Lastly, we see pension funds continuing to support the local equity market, with a consistent $3-5bn incremental flow into equities each year until 2030 coming from the 2020 reform, which we have seen starting to materialize in the past few months.

With the exception of Financials on potential tax regulation and Mining on open-pit prohibition and royalties, we see low risk of strong regulatory changes that could have a negative impact on earnings on the rest. We like Industrial Real Estate, Cement, and Consumer names in the aftermath of the election and have a neutral stance on Airports and Communication Services. Note that a lot of the companies that make up the index have a high revenue exposure to other markets, particularly the US, which in our view makes them even more defensive during times of spiking country risks.

But what about the long term? For those investors thinking about equities on a longer horizon, we have less visibility on regulatory risks for companies. However, near-shoring provides comfort that at least that part of the Mexican story should remain strong as long as the government is committed to moving ahead with structural changes required to modernize Mexico's supply chains and invest more in infrastructure, education, and technology. We see listed companies across the board reaping the benefits of greater investments and a stronger domestic economy if it materializes. Lastly, we strongly believe that changes to the pension fund system will provide solid support in the long run, and we see equities potentially trading back in the 15x historical range on a P/E basis by 2030.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Things to Know

*Mexico is the 14th largest country in the world and the fifth in the Americas, with a **total area** of ~2mn sq. km.*

*Mexico comprises **32 states** with ~40% of GDP coming from just four and Mexico City as the country's capital. It is divided into four main regions: North, Bajio, Center, and South.*

*Mexico has **~130 million people**, with 81% living in urban areas, giving it the 10th-largest population in the world and the third largest in the Americas. It is a young country with an average age of just 30 years old.*

***Life expectancy** stands at an average 75 years, with females having a higher expectancy at 78.0 and males lower at 72.2. Heart disease and diabetes are the largest causes of death.*

*Mexico has an **indigenous population** of 7.3 million (~6% of total), with over 68 indigenous languages spoken across the country. The most prominent of these are Nahuatl, Mayan, and Tseltal.*

*The Mexican **health system** is divided into public and private, covering 73.5% of the population. The public health system is then divided into several vertically integrated units that incorporate financing, insurance, and provision.*

*Over 91% of children in Mexico attend primary school, but only 42% attend upper secondary school. Moreover, only 21% of the adult population has more than an upper secondary **education**, which is significantly below the OECD's average of 40%.*

*Roughly 19% of college graduates study engineering, making Mexico of the OECD countries with the largest number of **professionals in engineering**. Other important fields of study include law and business administration.*

*Mexicans account for a large share of the foreign population in border states of the US, reaching more than 50% in some cases, with the largest number of **Mexican immigrants** residing in California.*

*55% of **Mexican migrants** work in the services sector, followed by workers in the construction, maintenance, or natural resources businesses with 27% and the remainder performing production or transportation duties.*

*The **labor market** in Mexico is still dominated by a large share of informal workers, which continues to account for roughly 54.5% of workers, but this share has been on a downward trend.*

*Mexico has the second highest number of **average hours worked** among OECD members but still the lowest GDP per hour worked.*

*The number of people living in **poverty** decreased from 43.2% of the total population to 36.3% in relative terms (2016 to 2022). For the same period, extreme poverty in Mexico remained flattish in percentage terms, but in nominal terms it has gone up from 8.7mn to 10.8mn people.*

***Government spending on social programs** is currently more than double in real terms what it was in 1995, with 26% of GDP destined toward public spending in 2024's federal budget.*

*Around 46 high-level **organized crime groups** are operating in the country, with each state having an average of three.*

*The most prominent forms of **corruption** in Mexico are bribery, procurement and rent-seeking, "clientelism," patronage, and embezzlement, with attempts at countering it having no documented success.*

*While Mexico is generally perceived as having sound macroeconomic fundamentals, it ranks poorly in terms of institutional strength as per the WEF **competitive index**.*

*Mexico's **Central Bank** was founded in 1925 but did not become independent until 1994. In 2001, Banxico officially implemented its inflation target regime, setting its long-term objective at 3%. The policy rate target was adopted in 2005.*

***Inflation** has struggled to converge decidedly to the Central Bank's 3% target over the past six years even though in the years after the independence of Banxico (see previous section) the disinflation gains were remarkable.*

*With an estimated daily turnover of $114bn, the **peso** is the third most liquid currency across emerging markets, just below the Chinese renminbi and the Indian rupee, and the 16th most liquid globally.*

*Since the adoption of the **free-floating exchange rate** regime in December 1994, there have been no major restrictions on buying/selling the peso.*

*Despite a large informal sector, the country has managed to dramatically increase its **taxpayer base**. Efficiency gains and increased power of the SAT (Mexico's IRS) yielded an increase in the taxpayer base of about 75% to currently 68 million during the past administration.*

*The United Mexican States is a **federal republic**. The government is based on a congressional system, where the President is both head of state, head of government, and of a multiparty system. Governmental powers are divided into three branches: executive, legislative, and judicial.*

***Suffrage** is universal, free, secret, and direct for all Mexican citizens 18 and older. Presidential elections are scheduled every six years, except in the case of absolute absence of the President. Legislative elections are scheduled every six years for the Senate (concurrent with the Presidential election) and three years for the Chamber of Deputies. The National Electoral Institute (INE), an autonomous public agency, is in charge of organizing federal elections.*

*Since the restoration of democracy after the Mexican Revolution and the drafting of the Constitution of 1917, Mexico has had **22 presidents**. Claudia Sheinbaum, the current president-elect, will become the 23rd and first female on Oct 1.*

*Mexico's **financial system** is made up of banks, credit organizations, insurance companies, brokerage firms, pension and mutual fund managers, as well as regulatory and supervisory institutions. The Mexican banking system, which is dominated by foreign-controlled banks, is well capitalized (capital/risk-weighted asset ratio of 15.2%) with non-performing loans at a moderate 2.1% of total as of 2023, and a minimum capitalization rate of 10.5%.*

*The **Mexican Stock Exchange** hosts 1,932 listed equities of which 131 are local stocks and the rest are GDRs, local and international ETFs/ETCs, and FIBRAs. Domestic listings amount to 162.*

*The **total market cap** of all the listed Mexican companies in the Mexican Stock Exchange is $387 bn ($190 bn free-float), or 26% of the country's 2023 nominal GDP.*

*In 1997 Mexico represented over 12% of the MSCI EM. 25 years later, Mexico's **weight in the index** has fallen five-fold to 2.6% as of 2024.*

*Sector-wise, Mexico is largely perceived as a defensive market. In terms of the **market's composition**, 50% of the weight of the MSCI Mexico is in defensive stocks (including Consumer Staples, Telecom, and Real Estate).*

*Mexico has not had any **IPOs** in the past two years. Prior to that, total equity issuance (includes follow-ons) in Mexico averaged $3.0bn per year since 2006. 2012 and 2013 were the strongest years on record, with the former recording over $9 bn and the latter $12.3bn.*

***FIBRAs** were a new investment vehicle designed by the Ministry of Finance with its main structure derived from the Mexican REIT (FIBRA) and designed to be an MLP-like vehicle.*

*Mexico's **pension fund system** is government mandatory and privately funded by private sector companies. It has one of the lowest contribution rates in the OECD, but the Reform passed in 2020 will improve net replacement rate to 65% from 35%.*

*There are currently **10 AFOREs** (Retirement Fund Administrators) in the Mexican pension fund system, which manage ~$360 bn in assets. Each AFORE is divided into 10 subgroups called "Siefores Generacionales" based on workers' date of birth to better balance returns, risk, and volatility as they approach retirement.*

*The **industrial sector** in Mexico represents 29% of the country's GDP and is divided into four sub-sectors: manufacturing, construction, mining, and utilities production, with manufacturing by far the largest of the four. In 2023 manufacturing represented 17% of GDP or 58% of total industrial activities, ranking second just behind commercial activities.*

*88% of Mexico's exports come from the **manufacturing sector** (20% in 1980). Excluding oil, the share is even higher at 94% of total exports. Automotive manufacturing and electronics are the two most important export categories.*

*The US is Mexico's **largest trading partner**, accounting for 83% of total exports, previously driven by NAFTA and now the USMCA free trade agreement. In 2023, Mexico surpassed China as the US's main trading partner, accounting for 15.5% of its imports.*

***Automobiles and auto parts** represent Mexico's largest export (28% of total), contributing 21% of industrial GDP and 4% of total GDP as of YE23.*

***Light vehicle production** in Mexico has more than doubled since 1999 and since 2014 it has been stable, ranging between 3mn and 4mn units per year.*

***Tourism-related activities** have grown strongly in Mexico, which is the 6th most visited country. Dollar inflows from tourism reached almost $30 bn last year.*

*51% of the **total energy consumption** in Mexico is destined for final users, while the rest is used within the energy sector for transformation and other self-consumption purposes.*

*Mexico's total energy consumption has grown 57% since 2000, at an average annual pace of 2.3%, slightly above the average annual growth of Mexico's population (1.2%). Conversely, **energy production** has declined 21% since 2000.*

*The **energy sector** is largely controlled by the state through its productive companies. Pemex dominates in the hydrocarbon space (both upstream and downstream), while the CFE controls the electric industry. Hence, the majority of the data presented below for national purposes are also Pemex's data.*

*Mexico is the 11th-largest **oil producer** in the world and the fourth largest in the Americas after the United States, Canada, and Brazil. According to the Energy Information Administration, Mexico produced 1.8 million barrels per day in 2023, up from 1.6 million barrels the year prior.*

*Mexico's **natural gas production** has declined 29% from its peak level in 2009 but has increased, albeit marginally, over the past five years to ~5 bn cubic feet per day. Mexico is a net importer of both natural gas and gasoline.*

*Mexico's National Electric System (SEN) comprises nine regions, a binational electricity system in Baja California, and a small isolated electric system (Mulgué). **Total installed capacity** by YE22 was 87 GW (+1.1% vs. 2021) while production amounted to 238 TW/hour. Roughly 71% of the electricity produced in Mexico is generated from fossil fuels.*

*Mexico has established short- and mid-term targets for **generation of clean energy** in accordance with international GHG reduction pledges tied to the Paris Agreement, to which it adhered in 2016. The aim is to reach a share of as much as 40% of power generation from zero or low-emission energy types by 2035 and 50% by 2050. However, recent changes made by the Regulatory Energy Commission (CRE) to the definition of clean energy have meant that reported data is no longer an accurate representation of reality.*

***Private investment in Mexico's energy space** reached a peak of $4.8 bn or 0.4% of GDP in 2018, when accounting for electricity generation and hydrocarbon exploration and extraction. This has since fallen to $721 mn or 0.04% of GDP by YE23.*

*Mexico's **road network** has an extent of 836.6k km and interlinks the interior part of the country with the North and South borders, making connections between the United States, Guatemala, and Belize. Mexico has nine formal border crossings in the south (eight with Guatemala and one with Belize).*

***Railway infrastructure** represents one of the most important logistics assets in Mexico, with 26.9k kms of tracks covering a large portion of the Mexican territory.*

*Mexico has **85 airports** divided among four large operators and individual private concessionaires. A total of 70 airports are international airports and the other 15 are national. Their concessions are modeled based on the Master Development Program (MDP), in which the concession holder submits a program for the approval of the regulatory entity to establish the tariffs and CapEx curve for the next five years.*

*Mexico has **117 ports**. All but the Acapulco port are operated by the government – municipal, state, or federal. Cabo San Lucas and Huatulco ports are operated by the federal agency in charge of tourism development in Mexico.*

*Mexico's **total internal renewable water resources** are 457 bn cubic meters per years in addition to 50 bn coming from neighboring countries. The historical mean annual precipitation is 750 mm, with most accruing between June and October. However, droughts are highly frequent, particularly in the North and Center States.*

*There are more than **6,500 dams** in Mexico of which 210 are large dams, which make up 85% of the total storage capacity. In addition, Mexico has seven major lakes with the most important being Chapala in between the states of Jalisco and Michoacan.*

*Total **water withdrawals** for consumptive use are 80 billion cubic meters (BCM) a year. The largest consumptive water user is agriculture (76%), followed by domestic use (14%) and industry (5%). Even though only ~18% of total water sources are withdrawn for consumptive use, there is water stress in several regions of the country.*

*Although an important sector for the country's economy both politically and historically, **agriculture** now only accounts for 1.2% of GDP (vs. 5% back in 1990, pre-NAFTA). Mexico's main agricultural products include sugarcane, alfalfa, white corn, forage corn, cultivated grass, forage oats, and sorghum grain and forage, which make up 69% of agricultural production.*

*16% of Mexico's territory is dedicated to agricultural crops and 56% is used for livestock production. Climate and topography limits **agricultural production** to only 10.5% of the nation's territory, while 3.2% of national territory must be irrigated.*

***Mining activities** represented 4.9% of total GDP in 2023. However, mining GDP has been decreasing since 1994. The GDP for this sector has contracted -21% since 2000.*

*During 2023, **four metals accounted for 83% of total production**: gold represented 31%, followed by copper at 27%, silver at 18%, and zinc at 7%. The mining and metals industry production index decreased -4.4% y/y in 2024 vs. 2023, dragged by the government's policy of freezing new concessions as well as uncertainty due to new reforms.*

*Mexico has a variety of **reserves**, being the fifth biggest in both copper and zinc. It has 3% of global gold reserves, 6% of copper, 6% of zinc, 7% of silver, and 7% of lead.*

***Construction** is Mexico's fourth most important economic sector, making up 6.2% of GDP as of 2023 and employing 8% of Mexico's economically active population.*

*Mexico's **cement industry** is made up of six players. Together, they have a production capacity of ~66 mn mt through ~35 cement plants installed throughout the country. Annual production of grey cement was 41.5 mn mt in 2023, meaning the industry's implied utilization rate stood at 64.5%, but we estimate that is much higher as there is significant idle/old capacity.*

*The **banking sector** in Mexico is formed by 50 banks and is among the least penetrated in the region at ~21% banks to GDP ratio, only above Argentina.*

***Credit penetration** is low compared to regional peers and has been relatively stable in recent years, ranging between 20-22% since 2015.*

***Loan growth** has been accelerating in recent years from a low base. Specifically, from 2019-2022 Mexican banks grew fairly in line with inflation, implying virtually zero real growth given overall volatile political and economic environments. By late 2022, banks started reaccelerating growth and total loans grew ~12% y/y. In spite of some deceleration, loans kept growing at a good ~9% y/y pace in 2023.*

*Banks tend to be **asset sensitive**, meaning that margins benefit from higher rates. Specifically, commercial and government loans tend to reprice with rates.*

*Mexican banks have one of the **best deposit mixes** in the region with low-cost demand deposits representing over 65% of total.*

*Excluding a small Covid-19–driven cycle in 2020-2021, **asset quality** has remained behaved with NPLs around 2% since 2016. Moreover, banks built additional reserves in 2020, and since then cost of risk has remained below historical levels.*

***Total retail sales** in Mexico (ex-fuel and vehicles) reached Ps 3,826bn in 2023, representing 6% y/y growth and 14% of GDP.*

*Mexico **e-commerce sales**, according to the AMVO (Mexican Association of Online Sales), represents 13% of total retail sales in Mexico and has been growing at a 38% CAGR since 2019, which is one of the fastest paces globally.*

***Housing demand** in Mexico is down vs pre-pandemic levels due to economic uncertainty around inflation and rates, with the average interest rate for mortgages in 2023 at 11.5%. More than 50% is concentrated in eight states, with the highest demand in Mexico City.*

*The **industrial real estate inventory** in Mexico is geographically diversified, with most of it located in the North region and the Bajio, while Mexico City and the Metropolitan Area accounts for one-third, mostly related to logistics (rents in pesos), while in the North and Bajio it is mostly manufacturing (rents mostly in USD). Manufacturing, Automotive, and Distribution Logistics are the main tenants of the industrial real estate space, with 52%, 23%, and 17%.*

***Retail stock** in Mexico is currently at 25.1 mn m2, a steady, albeit small, increase since 2018 when inventory was closer to ~23 mn m2. Close to 47% of the total retail stock is concentrated in the country's top three cities.*

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Overview

Area

With a total area of nearly 2 million square kilometers (0.8 million square miles), Mexico is the world's 14th largest country. It is also the fifth largest country in the Americas, after Canada, the US, Brazil, and Argentina.

Figure 1: Top 5 Countries in the Americas by Total Area

Country	km^2 million	$miles^2$ million
Canada	9.98	3.85
US	9.63	3.72
Brazil	8.51	3.28
Argentina	2.77	1.06
Mexico	1.97	0.76

Source: World Bank and J.P. Morgan estimates.

Mexico comprises 32 states, with one of them being Mexico City, the country's capital. It is divided into four main regions: North, Bajio, Center, and South, according mostly to their geographic locations, although they also share similar cultural, economic, historical, and social aspects. Note that ~40% of the country's GDP comes from just four of the 32 states: Mexico City, State of Mexico, Nuevo Leon, and Jalisco.

Figure 2: Mexico's Regional Division

Source: INEGI.

Figure 3: Regional Profile

North	
Area	1,050,774 km2 or 53.5% of toal
Population	28.6 million or 22.7% of total
	26.6 inhabitants / km2
GDP	$359 billion or 28.2% of total
	$9,310 per capita
Main Activities	Services, Manufacturing, Commerce and Construction
States	Baja California, Baja California Sur, Chihuahua, Coahuila, Durango, Nuevo Leon, Sinaloa, Sonora, Tamaulipas
Bajio-Pacific	
Area	325,774 km2 or 16.6% of total
Population	29.5 million or 23.4% of total
	89.0 inhabitants / km2
GDP	$260 billion or 21.1% of total
	$6,669 per capita
Main Activities	Services, Manufacturing, Commerce and Construction
States	Aguascalientes, Colima, Guanajuato, Jalisco, Michoacan, Nayarit, Queretaro, San Luis Potosi, Zacatecas
Center	
Area	188,705 km2 or 9.6% of total
Population	47.2 million or 37.5% of total
	249.0 inhabitants / km2
GDP	$483 billion or 37.9% of total
	$7,264 per capita
Main Activities	Services, Commerce, Manufacturing and Communication
States	Hidalgo, Mexico City, Morelos, Puebla, State of Mexico, Tlaxcala, Veracruz
South	
Area	397,137 or 20.2% of total
Population	20.7 million or 16.4% of total
	50.3 inhabitants / km2
GDP	$160 billion or 12.9% of total
	$5,800 per capita
Main Activities	Services, Mining, Commerce and Manufacturing
States	Campeche, Chiapas, Guerrero, Oaxaca, Quintana Roo, Tabasco, Yucatan

Source: INEGI and J.P. Morgan estimates.

Mexico is bordered by the US to the north (3,145 km of border), by the Pacific Ocean to the south, to the southeast by Guatemala, Belize, and the Caribbean Sea, and to the east by the Gulf of Mexico. The northern border consists of six Mexican states (Baja California, Sonora, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas) colliding with four US states (California, Arizona, New Mexico, and Texas), with the length of this division over 3,000 km. To the south, Mexico borders Belize and Guatemala, colliding with four

Mexican states (Chiapas, Tabasco, Campeche, and Quintana Roo), with a border 1,146 km long. The country has 49 customs facilities (21 on borders, 11 internal and 17 maritime), 58 ports and terminals on the Pacific Ocean coast, 59 terminals on the Gulf of Mexico and Caribbean coast, and 15 road corridors. (Mexico City, State of Mexico, Jalisco, and Nuevo Leon).

Figure 4: Size of Mexican States Territories, Population and GDP Contribution

State	km2	% of total	Population (mn)	Population/ km2	GDP per Capita (USD)	Contribution to GDP
Chihuahua	247,938	12.6%	3.7	15	8,089	3.5%
Sonora	182,052	9.3%	2.9	16	10,419	3.4%
Coahuila	151,571	7.7%	3.1	21	10,139	3.7%
Durango	123,181	6.3%	1.8	15	5,883	1.2%
Oaxaca	93,952	4.8%	4.1	44	3,234	1.5%
Jalisco	80,386	4.1%	8.3	104	7,701	7.2%
Tamaulipas	79,384	4.0%	3.5	44	7,750	3.1%
Chiapas	74,211	3.8%	5.5	75	2,494	1.4%
Baja California Sur	73,475	3.7%	0.8	11	10,519	0.9%
Zacatecas	73,252	3.7%	1.6	22	4,947	0.9%
Veracruz	71,699	3.7%	8.1	112	5,253	4.5%
Baja California	69,921	3.6%	3.8	54	8,065	3.5%
Nuevo León	64,924	3.3%	5.8	89	12,538	8.0%
Guerrero	64,281	3.3%	3.5	55	3,593	1.4%
San Luis Potosí	63,068	3.2%	2.8	45	6,901	2.3%
Michoacán	59,928	3.1%	4.7	79	4,724	2.5%
Sinaloa	58,328	3.0%	3.0	52	6,950	2.2%
Campeche	50,812	2.6%	0.9	18	29,442	2.7%
Quintana Roo	50,212	2.6%	1.9	37	8,252	1.6%
Yucatán	38,402	2.0%	2.3	60	5,995	1.5%
Puebla	33,902	1.7%	6.6	194	4,778	3.3%
Guanajuato	30,491	1.6%	6.2	202	6,013	4.2%
Nayarit	26,979	1.4%	1.2	46	5,177	0.7%
Tabasco	25,267	1.3%	2.4	95	9,872	2.3%
State of Mexico	21,355	1.1%	17.0	796	4,915	8.8%
Hidalgo	20,813	1.1%	3.1	148	4,669	1.7%
Querétaro	11,499	0.6%	2.4	206	8,997	2.3%
Aguascalientes	5,471	0.3%	1.4	261	8,245	1.3%
Colima	5,191	0.3%	0.7	141	7,881	0.6%
Morelos	4,950	0.3%	2.0	398	5,388	1.1%
Tlaxcala	4,016	0.2%	1.3	334	4,074	0.6%
Mexico City	1,479	0.1%	9.2	6,227	17,973	16.0%

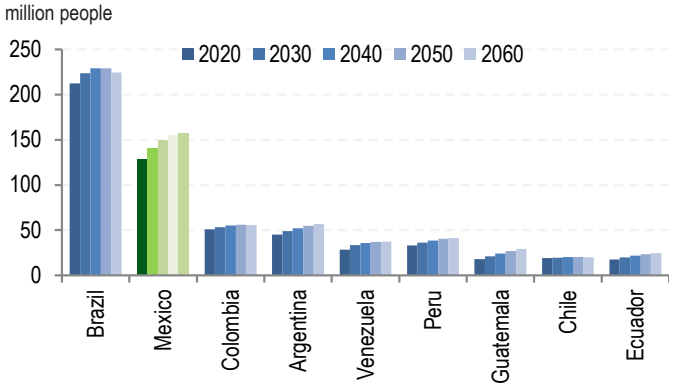
Source: INEGI.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Population

Mexico has an estimated population of 126 million (2020 census), giving it the 10th-largest population in the world and the third largest in the Americas, behind Brazil and the US. It also has the most Spanish-speakers. **51.2% of the total population are females while 48.8% are males.**

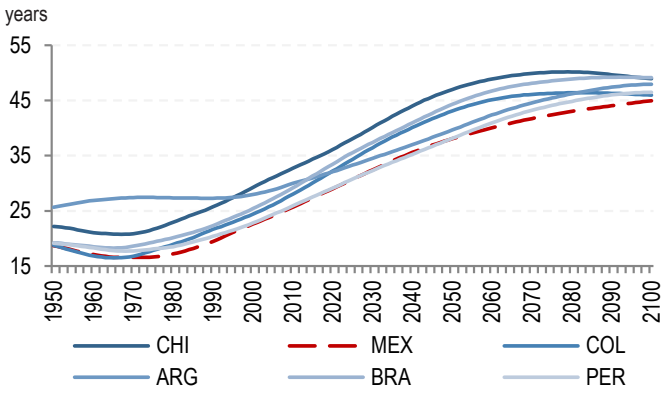
Figure 5: Population in Selected LatAm Countries



Source: CELADE.

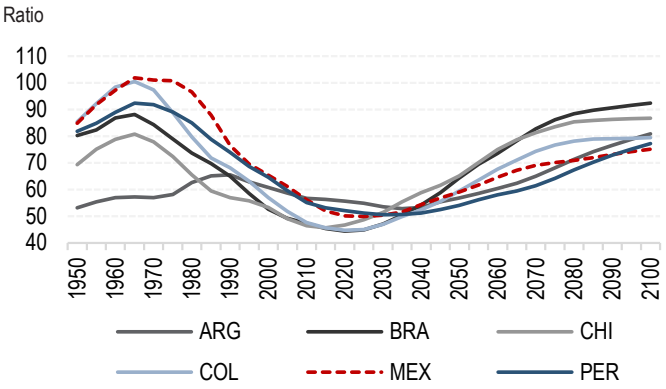
Mexico is a young country, with ~45% of its population under 25 and an average age of 30. According to CELADE, Mexico will reach its lowest total dependency ratio (ratio of younger to older population, see below for details) in a century within 10-20 years. Despite an anticipated further decline in young dependency, it will likely remain one of the highest in the world. In contrast, the old-age dependency ratio, despite rising, should be only around one-third of the projected average in developed markets. Among Latam countries, Mexico and Peru have the lowest average age at 30.4, followed by Argentina at 33.0, Colombia at 33.9, while Brazil and Chile have the highest at 35.2 and 37.7, respectively.

Figure 6: Average Age of Population Projections - Selected LatAm Countries



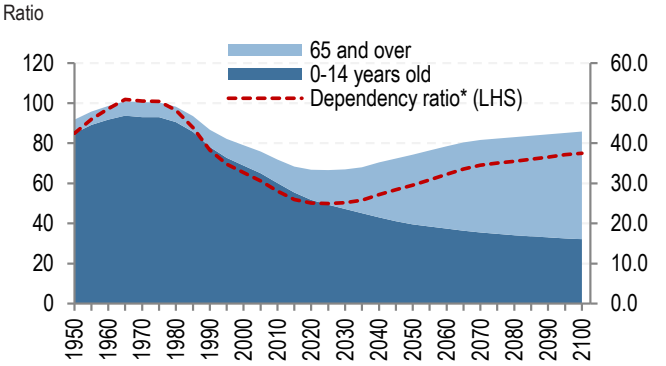
Source: CELADE.

Figure 7: Dependency Ratio – Selected LatAm Countries



Source: CELADE. Note: Dependency ratio = (population aged 0-14 + population aged 65 and over)/ population aged 15-64)*100.

Figure 8: Mexico's Dependency Ratio



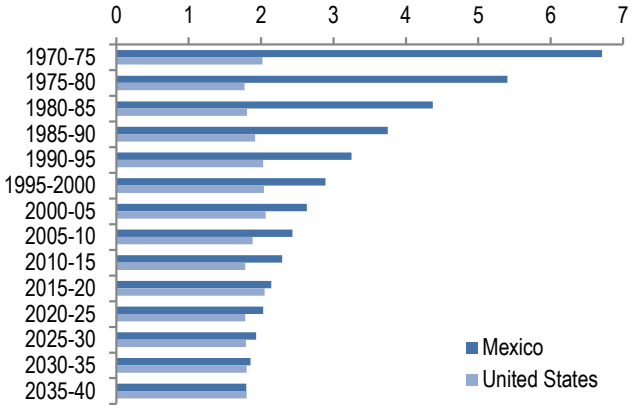
Source: CELADE. Note: Dependency ratio = (population aged 0-14 + population aged 65 and over)/ population aged 15-64)*100.

The country's average population growth rate accelerated sharply during the first half of the 20th century, reaching 3.1% per year, at which time the fertility rate was c.6.5 children per woman. This acceleration came after the Mexican Revolution, which caused a decrease in the population growth rate at -0.1% y/y at the beginning of the century and has been at +2.2% on average in the past 10 years. According to the 2020 population census, the **current average fertility rate is c.2.1 children per woman**, a bit higher than the 1.8 in the US.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 9: Average Fertility – Mexico vs. United States

Average children per women

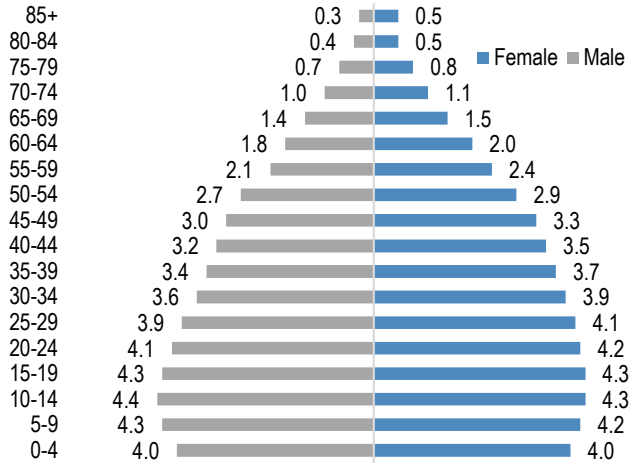


Source: The Economist, UN Population Division.

The above-mentioned population growth dynamics and the improvement in Mexico's population life expectancy explain the current shape of the population pyramid and its expected transformation in the next 40 years.

Figure 10: Population Pyramid – 2020

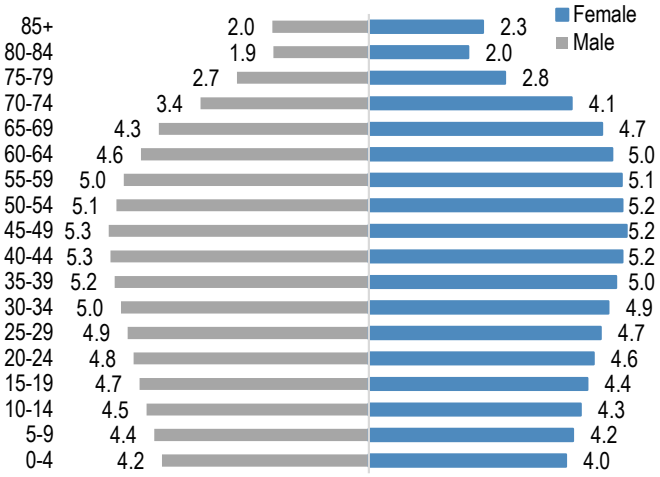
million people



Source: INEGI. 2020 Population Census

Figure 11: Population Pyramid – 2060e

million people

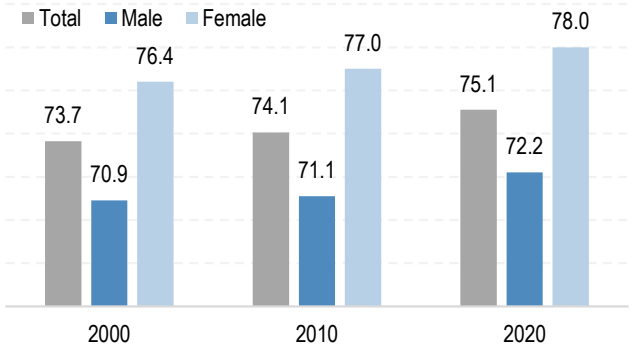


Source: CONAPO.

Life expectancy in Mexico stands at an average 75.1 years, with females having a higher expectancy at 78.0 and males lower at 72.2. As the population growth rate decelerates (young population dependency ratio decreases) and life expectancy improves, the Mexican demographic bonus could translate into increased saving rates, which in turn should boost investment and growth. However, in our view, the biggest challenge to fully harness the demographic bonus has to do with improving education and productivity of the population.

Figure 12: Life Expectancy in Mexico

years



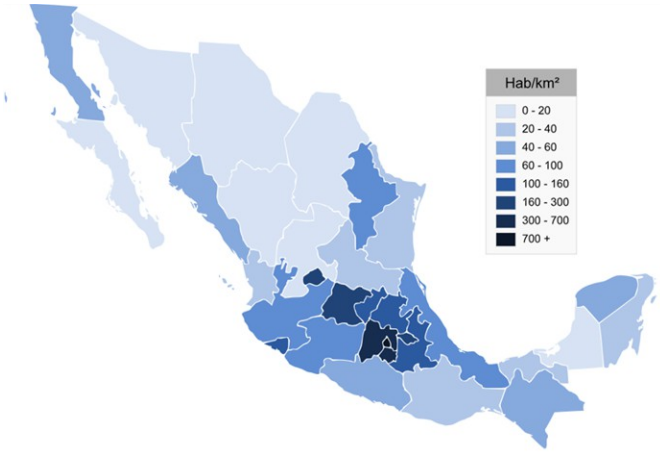
Source: CONAPO.

Population is concentrated in central Mexico and around the metro area of Mexico City. The north region of the country, where ~27% of the population lives, is the least densely populated area and generates around 30% of national production. In contrast, the Central area of Mexico concentrates 64% of the population and represents 58% of GDP. Lastly, the Southeast of the country produces 12% of Mexi-

co's GDP.

Figure 13: Population Distribution by Region

million people

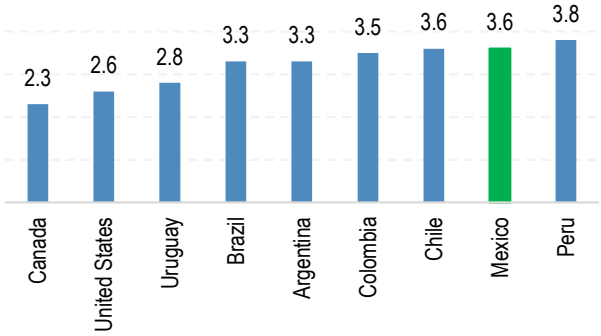


Source: INEGI.

The average Mexican home has 3.6 members, one of the largest in LatAm and the world. Sweden and Germany are the countries with the lowest family size, with an average of 2 members per household. Between 2000 and 2020, household size in Mexico has declined from 4.4 to 3.6 members.

Figure 14: Average Size of Households – Selected Countries in the Americas

no. of people

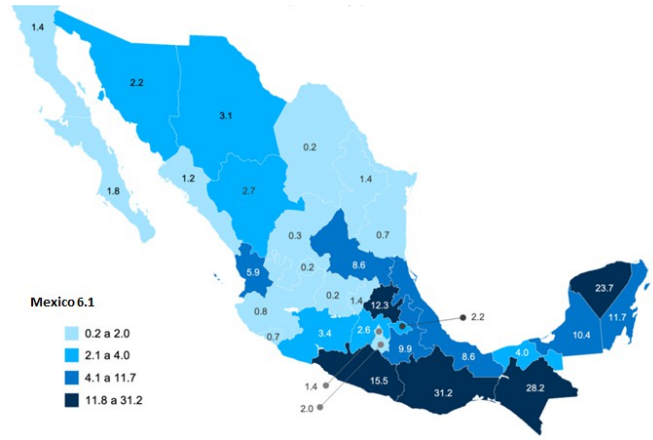


Source: World Bank.

According to INEGI, **Mexico has an indigenous population of 7.3 million (~6% of total), with over 68 indigenous languages spoken across the country.** The most prominent of these are Nahuatl, Mayan, and Tseltal. Thus, it is among the 10 countries with the most native languages and the second in Latin America, after Brazil.

Figure 15: Indigenous Population Density by State

thousands of people



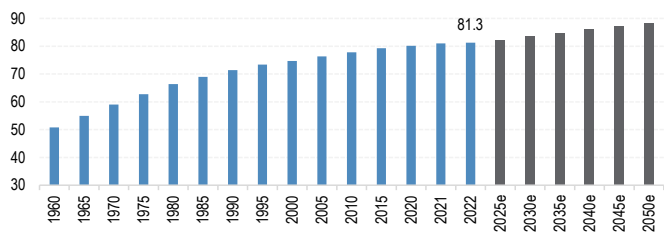
Source: INEGI.

Urbanization

According to the UN, 57.5% of the world population lived in urban areas in 2023, and the number is expected to increase to 68.4% by 2050 with the largest increases concentrated in Asia (29.6%) and Africa (35.6%). Mexico is no exception to this trend. Since 1940, Mexico's urbanized area has increased significantly, with the urbanization rate now at 80.2% and high by developing country standards. Increased urbanization has been spurred by migration to the northern Border States, attracted by the rapid growth of the "maquila" (offshore assembly for re-export) industry, and to tourist centers on the Caribbean and Atlantic coasts. Hence, on a regional basis, the Southeast remains the least urbanized region of the country (63%) with Chiapas and Oaxaca the least urbanized states both at 49%. On the other extreme the Bajio (77%), North (89%), and Central (86%) regions have an average of 82% of the population urbanized. Some of the problems caused by disorganized formation of urban areas are evident such as the lack of satisfactory infrastructure (i.e., transportation, sewage, hospitals, and schools), while a lack of access to public services of good quality in several states continues to be a key complaint from the population.

Figure 16: Urban Population in Mexico

% of total population



Source: INEGI, UN, The World Bank.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

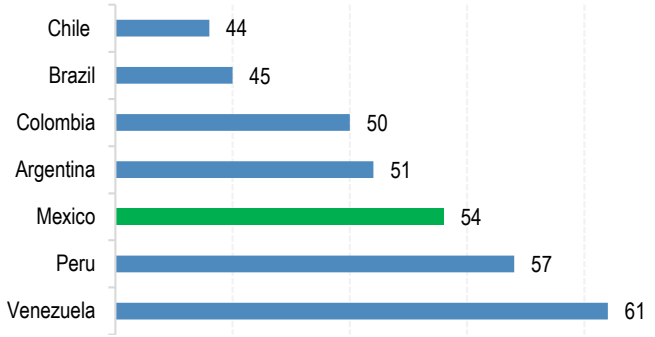
Social Aspects

Health

According to the International Institute for Management Development (IMD) World Competitiveness Booklet, Mexico's score in health ranked 54 out of the 64 countries evaluated (vs. 55 in 2022 and 53 in 2021). Moreover, among LatAm countries ranked, Mexico stood at five out of seven, behind Chile, Brazil, Colombia, and Argentina. Top ranked countries included Switzerland, Iceland, Denmark, Sweden, and Finland.

Figure 17: Health Competitiveness for LatAm Countries

rank

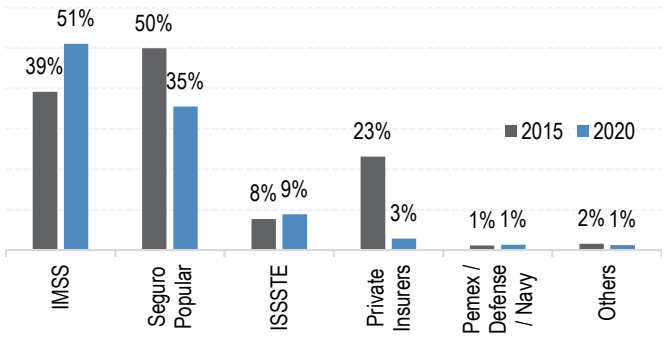


Source: IMD. Note: the ranking is for health and environment.

The Mexican health system is divided into public and private. The public health system is then divided into several vertically integrated units that incorporate financing, insurance, and provision. The National Health Institute (IMSS) tends to workers in the private sector, while the Social Security (now incorporated with INSABI) and Health Institute for Workers of the State (ISSSTE) tends to public employees. Since 2004, the rest of the population who were not covered by either of the two were tended to by the "Popular Insurance" scheme (Seguro Popular). The Seguro Popular was eliminated in 2020 by President Lopez Obrador, who substituted it with the newly created National Health Institute for Welfare (Instituto Nacional de Salud para el Bienestar, INSABI), which is intended to perform very similar functions as the Seguro Popular: provide medical care for those who do not have access to any health institution.

Figure 18: Distribution of Population Affiliated to Health Insurance Providers

% of population



Source: INEGI. Note: the sum of the percentages may be greater than 100% as there are people affiliated in two or more institutions.

Hence, 73.5% of the Mexican population has access to one of the mentioned health institutions compared to 64.6% in 2010. Coverage across states varies considerably, with the gap between the most covered and the least covered state standing at 22.2%. The top 10 states on coverage ranking represent 27.4% of GDP, while the bottom 10 represent 31.7%

Figure 19: Health Coverage Among States

% of population

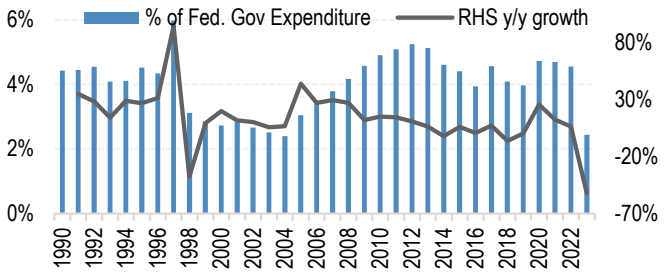
Entity	Percentage of Population Affiliated with Health Services
Chihuahua	84.4%
Baja California Sur	83.2%
Colima	82.8%
San Luis Potosi	82.5%
Aguascalientes	81.4%
Sonora	81.2%
Nuevo León	80.9%
Sinaloa	80.9%
Coahuila	80.7%
Zacatecas	79.7%
Tamaulipas	79.5%
Querétaro	79.1%
Guanajuato	79.0%
Yucatán	78.0%
Nayarit	77.7%
Campeche	77.5%
Baja California	77.1%
Durango	74.6%
Guerrero	74.3%
Quintana Roo	73.5%
Mexico City	72.6%
Veracruz	72.3%
Morelos	71.9%
Tlaxcala	71.8%
Puebla	70.6%
Oaxaca	70.3%
Jalisco	69.9%
Hidalgo	69.7%
Tabasco	68.5%
Chiapas	66.7%
México	66.3%
Michoacán	62.2%

Source: INEGI.

Total expenses associated with healthcare amounted to 5.5% of GDP in 2022, considerably below the OECD's average of 9.2% and LatAm's 7.2%. Moreover, government spending on public health for the same year represented ~4.6% of total federal expenditures, slightly over the 4.4% average of the preceding five years. However, health expenditures increased 9.5% in absolute terms relative to 2021.

Figure 20: Federal Government Expenditures on Health

% of expenditure, y/y



Source: SHCP.

Life expectancy in Mexico has increased 60% since the 1950s, to 75.3 years from 46.9. However, gross mortality has not varied much since the 1980s, standing at 7 for every 1,000 people. Thus, while considerable improvements have been made in the treatment of infectious diseases, chronic diseases, such as diabetes, have now taken the lead in terms of causes of mortality.

Figure 21: Causes of Mortality

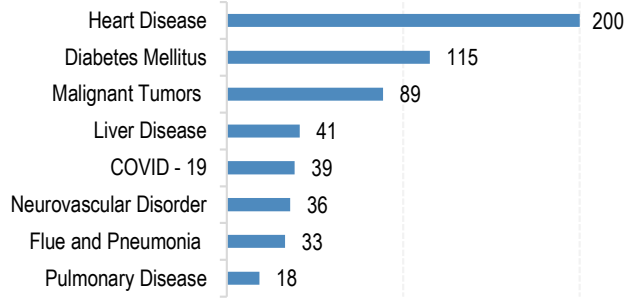
number of deaths per year

Causes	Deaths
Heart Disease	200,023
Diabetes Mellitus	115,025
Malignant Tumors	88,574
Liver Disease	41,281
COVID - 19	38,508
Accidents	37,450
Neurovascular Disorder	35,977
Homicide	33,287
Flue and Pneumonia	33,049
Chronic Obstructive Pulmonary Disease	18,463

Source: INEGI.

Figure 22: Deaths per Primary Illnesses in Mexico

thousands of people



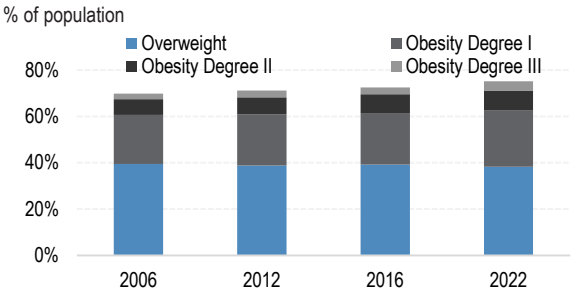
Source: INEGI.

Obesity has become a severe challenge for Mexico as adult obesity increased 21.4% from 2006 to 2022 after adjusting for population change. The latest national health census showed that 36.9% of adults are obese, with higher prevalence among women (41.0%) than men (32.3%). Results also showed only 23.6% of the population had healthy weight. Around 38.3% of the Mexican population is overweight and holds the first place in child obesity, revealing 18.1% of kids from 5-11 years old are obese, and 17.2% from 12-19 also present this issue. The Ministry of Health stated that the main consequences for overweight people are (1) a 12x higher mortality rate for people aged 25-35 years; (2) occupational disabilities, of which 25% are disorders related to obesity; and (3) an increase in family expenses of 22-34%. Between 80% and 90% of the people diagnosed with Type II diabetes are obese. Currently, one in three deaths in Mexico have diabetes as the secondary cause of death, and 87% of patients diagnosed with

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

diabetes receive a treatment to control the disease.

Figure 23: Overweight and Obese Adult Population

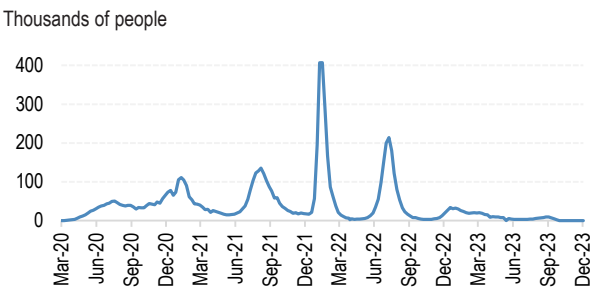


Source: ENSANUT. Note: categories are determined by the body mass index as: normal weight (18.5-24.9 kg/m2), overweigt (25.0-29.9 kg/m2), and obesity (≥30 kg/m).

Covid-19

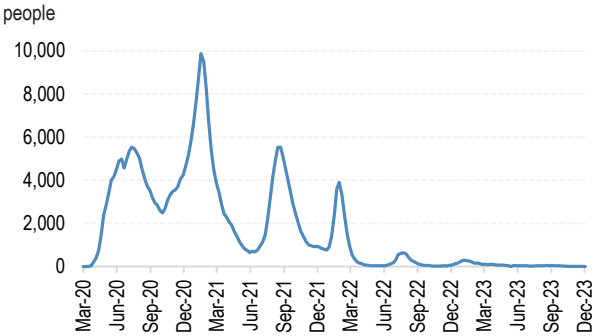
The first three cases of Covid-19 in Mexico were confirmed on February 28, 2020. On March 18, 2020, the first Covid-19 death was confirmed. Travel restrictions between the Mexico-US border were enacted on March 20, nearly at the same time the government announced several health guidelines with the most relevant aimed at limiting mobility and activity to only those deemed to be essential to slow down the pace of contagion. In late March, the government announced strict social distancing measures, which lasted, generally, through the end of May 2020. From then onward, the government introduced a tiered system, named the "traffic-light" system, through which activity across the 32 states in Mexico was administered. However, these restriction were never as harsh as those of many other countries in the region (Chile and Argentina, for example) and were the target of important criticism. Mexico ended up being one of the places where Covid-19 hit the hardest globally, with 334,930 deaths registered. When looking at deaths per 100,000 people, Mexico is in ninth place. Sadly, four of the 10 countries with the most deaths per 100K people were in LatAm: Peru (#1); Chile (#3); Brazil (#4), and Mexico (#9). By YE23 there were 7,702,476 million confirmed cases in the country.

Figure 24: COVID-19 Cases



Source: WHO.

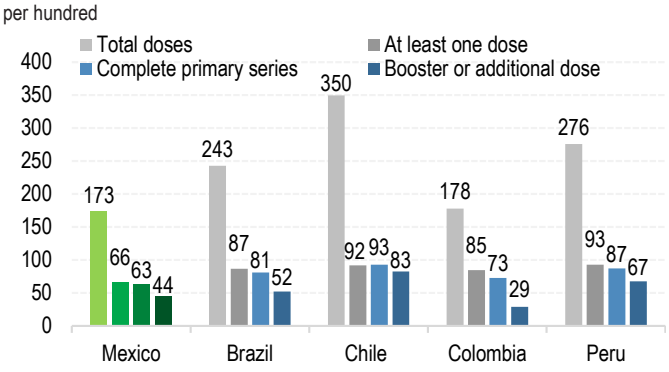
Figure 25: COVID-19 Deaths



Source: WHO.

Vaccination started slow, but the pace picked up over the next few months and stabilized at around 500k vaccines per day. Vaccination in Mexico started in December 2020, with health personnel from the public sector vaccinated first, from Dec 2020 to Feb 2021. Then, groups were formed by age, starting with people over 60 (Feb-May 2021), people between 50 and 59 (May-Jun 2021), people between 40 and 49 (Jun-Jul 2021), and finally the rest of the population (Jul-Mar 2022). Initially vaccines used were limited to Pfizer, with Astra Zeneca vaccine joining in January 2021. The latter seemed on track to become the main form of vaccination in Mexico when a deal was reached to produce the vaccine jointly in Mexico and Argentina. However, CanSino, Sputnik V, and SinoVac were later approved and widely used as well. It is estimated that about 63 per 100 population is fully vaccinated (complete primary series).

Figure 26: People Vaccinated



Source: WHO.

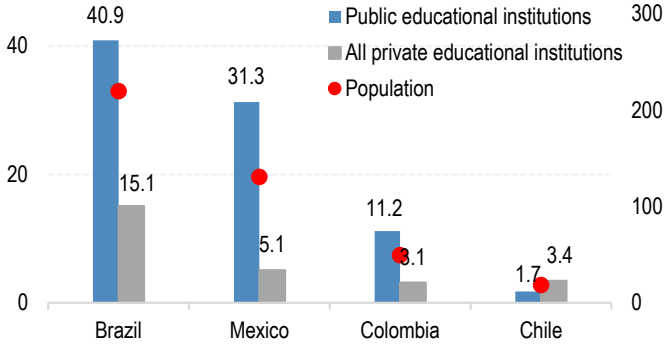
Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Education

The Mexican state has been directly involved in education since the 19th century, promoting secular education. Education is currently regulated by the Secretariat of Education (SEP), with education standards set by the Ministry at all levels except in "autonomous" universities chartered by the government (i.e., National Autonomous University of Mexico). Accreditation of private schools requires mandatory approval and registration with this institution, while religious instruction is prohibited in public schools. However, religious associations are free to maintain private schools, receiving no public funds, and with a number of private universities opened since the mid 20th century.

Figure 27: Public vs. Private Education Enrollment

mn institutions, mn people

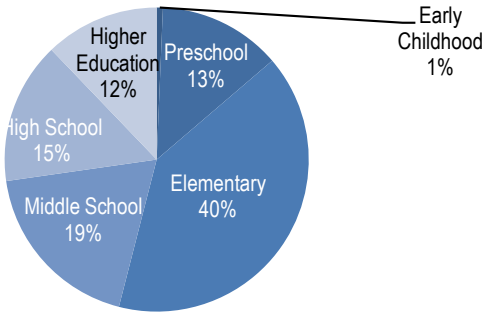


Source: OECD.

Mexico classifies its education system into basic, upper secondary, higher education, and postgraduate education. Children attend preschool between the ages of three and five, primary school between six and 11, lower secondary education between 12 and 14, and upper secondary between 15 and 18. In Mexico, secondary is divided into lower secondary and upper secondary, each lasting three years. Before 2012, basic education only included preschool, primary, and lower secondary. In 2012 Congress approved a reform to make upper secondary education mandatory. According to the OECD, in Mexico, 8% of two-year-olds are enrolled in early childhood education, 39% of three-year-olds, 81% of four-year-olds, and 75% of five-year-olds. Compulsory education in Mexico starts at the age of three and continues until the age of 17, with 26% of 15- to 19-year-olds enrolled in general upper secondary education and 16% in vocational upper secondary education. A further 5% are enrolled in lower secondary programmes and 12% in tertiary programmes. This compares to an OECD average of 37% enrolled in general upper secondary programmes, 23% in vocational upper secondary programmes, 12% in lower secondary programmes, and 12% in tertiary programmes. On average across the OECD, bachelor's programmes (undergraduate degrees awarded by colleges and universities upon completion of three to six years of study) attract 76% of all new students compared to 93% in Mexico.

Figure 28: School Enrollment Distribution by Educational Level

% of total

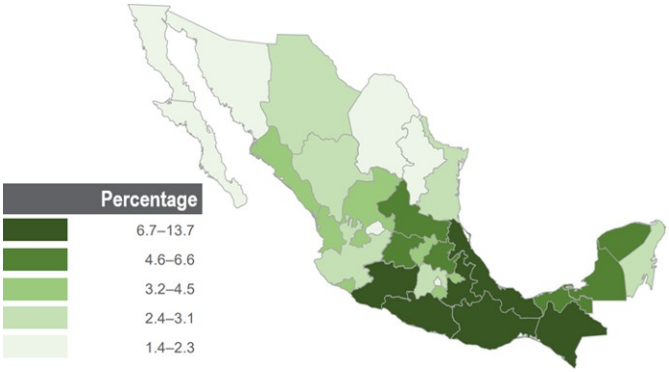


Source: INEGI. Note: School year 2022/2023.

Education is recognized as one of Mexico's main structural problems. The illiteracy rate in Mexico as of the most recent data stands at 4.7% for those over 15 years old. Moreover, it reflects the regional inequality within the country: the highest illiteracy rate is observed in the South with Chiapas, Guerrero, and Oaxaca having the highest percentage and the lowest in the North and center with Mexico City, Nuevo León, and Coahuila having the lowest percentage.

Figure 29: Illiteracy by State

% of population over 15 years old



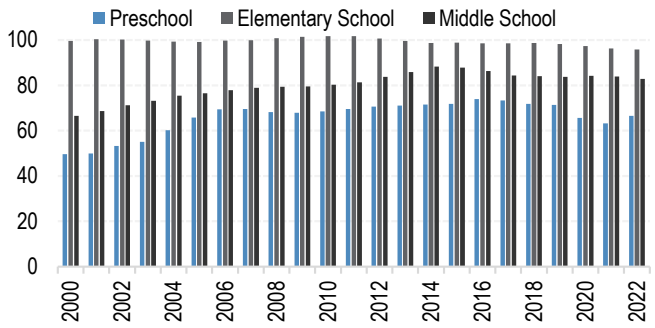
Source: INEGI. Note: the population considered illiterate are those 15 and older who do not have the ability to read and write.

The problem is not in terms of enrollment but in the transition between primary and secondary school. While over 91% of children in Mexico attend primary school, only 42% attend upper secondary school and around 43% of 25- to 34-year-olds have not attained an upper secondary qualification, this being considerably higher than the OECD average of 14%. Only 23% of 25- to 64-year-olds have upper secondary or post-secondary non-tertiary attainment, a little higher than the 21% that have tertiary attainment. This means only 21%

of the adult population in Mexico has more than an upper secondary education, which is significantly below the OECD's average of 40%.

Figure 30: Enrollment Rate per Education Level

rate

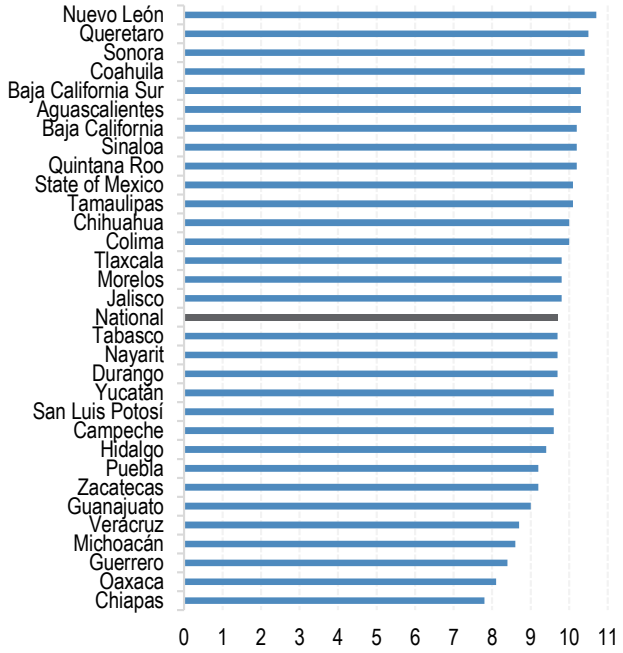


Source: INEGI.

On average, a Mexican student spends 9.7 years at school, which is roughly enough to complete primary education. According to the UN, the global average is 8.7 years. Higher averages are recorded for Germany, Canada, Iceland, and the US. There is no large difference across states.

Figure 31: Average Years of Schooling

per State

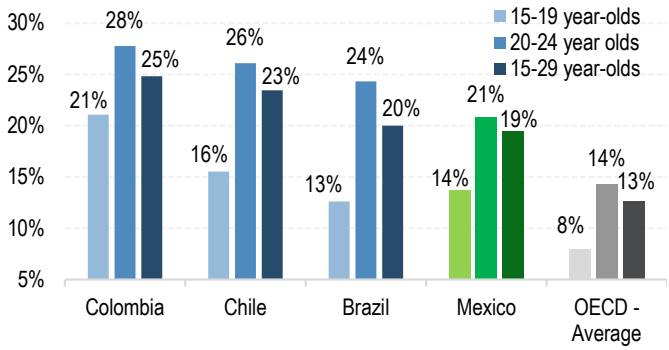


Source: INEGI.

NEET: Neither employed nor in formal education or training. We found this acronym at the OECD, but it is one we have been familiar with for a long time (commonly referred as "Ninis" in Mexico). Data from the OECD show that Mexico has an above-average proportion of people aged 18-24 years who are NEET at 21.7% of the population in Mexico vs 16.1% at the OECD. The percentage rises among those aged 25-29 years, with 25.6% vs. 20% for the OECD average. Even though compared to the OECD average Mexico has an above average percentage of people neither working nor studying, it is among the lowest in LatAm.

Figure 32: People Neither Working Nor Studying

% of 15-29 year-olds

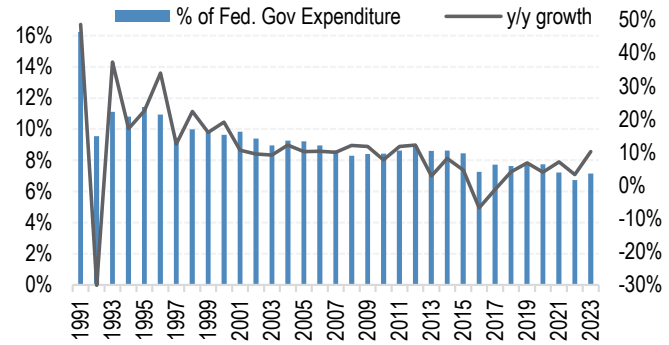


Source: OECD. Data as of 2022.

Public spending on primary to tertiary education as a percentage of total government expenditure was only 1.3% of GDP in Mexico, well below the 10.6% of the OECD on average. However, it is important to note that since 2015 education spending has increased an average of 3.6% annually.

Figure 33: Education Expenditure as a % of Total Expenditures

% of expenditure, y/y



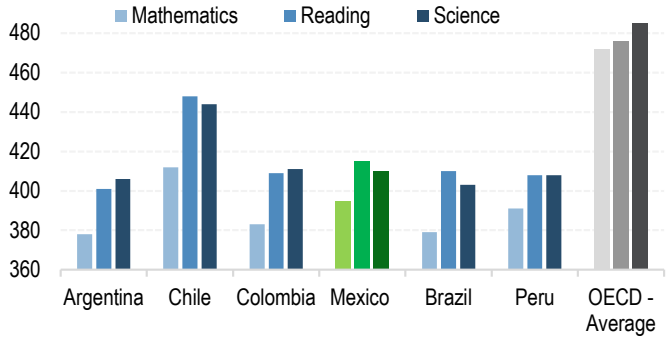
Source: SHCP.

Results are also pretty subpar with Mexico well below average in all topics. The PISA (International Student Assessment) is an international study conducted by the OECD with the aim of evaluating the proficiency of 15-year-olds worldwide in key subjects (reading, math, and science). Mexico has been well below average in all topics. PISA 2022 recorded an unprecedented drop in the mean performance of all countries in both reading (-10 score points) and mathemat-

ics (-15 score points), likely related to a negative shock related to the Covid-19 pandemic, and Mexico was no exception. Average 2022 results in Mexico were down compared to 2018 in mathematics and science and about the same as in 2018 in reading. In mathematics, the recent drop (2018-2022) reversed most of the gains observed over the 2003-2009 period, and average scores returned close to those observed in 2003 or 2006. Also, compared to 2012, the proportion of students scoring below a baseline level of proficiency increased by 11pp in mathematics and by 5pp in reading, but did not change significantly in science. Mexico scored below the OECD average in all categories. The mean mathematics score among OECD countries was 472 points, 77 points above Mexico's mean score of 395. Reading was the best category for Mexico with a slightly lower difference of 61 points (Mexico at 415 vs. the OECD's 476); and in science Mexico scored 410 vs. the OECD average of 485, representing a difference of 75 points.

Figure 34: Performance in the PISA Evaluation

Mean Score

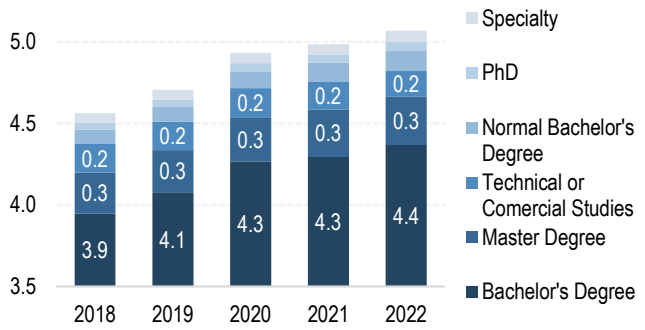


Source: OECD.

There are both public and private institutions of higher education, which typically follow the US education model with at least four-year bachelor's degree undergraduate level *(Licenciatura)* and two degrees at the postgraduate level, a two-year Master's degree *(Maestria)* and a three-plus-year doctoral degree *(Doctorado)*. While still low compared to the OECD average, Mexico has made great progress in increasing tertiary educational attainment from 16% in 2008 to 21% in 2023.

Figure 35: Higher Education Enrollment

mn people



Source: Ministry of Economy.

On average, a tertiary qualification results in better labor-market outcomes. Tertiary-educated workers in Mexico enjoy the second highest earnings premium over those with upper secondary education among OECD countries. In fact, 25- to 34-year-old workers with bachelor's attainment earn 61% more than their peers without upper secondary attainment, while those with master's or doctoral attainment earn 143% more.

Figure 36: Employment rate per Education Level

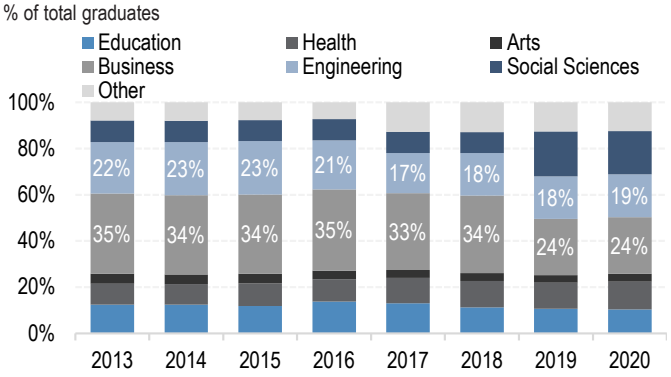
Percentage of employed 25-64 year-olds among all 25-64 year-olds

	Below upper secondary	Upper secondary or post-secondary non-tertiary	Tertiary	All levels of education
Mexico	**65**	**71**	**80**	**70**
Colombia	64	69	79	70
Chile	52	63	80	65
Brazil	58	73	84	69
Argentina	66	73	86	74
OECD average	**59**	**77**	**86**	**78**

Source: OECD.

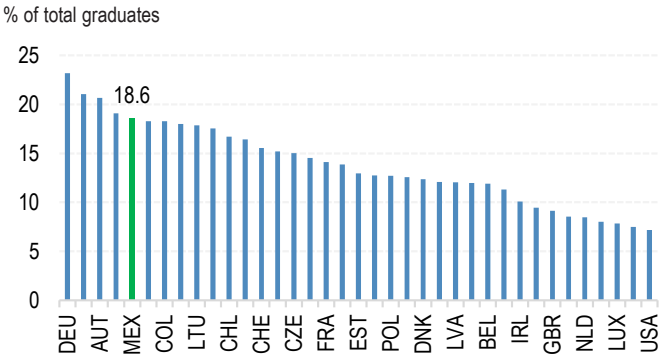
The fields of study with the largest number of graduates in 2022-23 were engineering, law, and business administration. Note that in Mexico ~18.6% of graduates studied engineering, making it one of the OECD countries with the largest number of professionals in engineering.

Figure 37: Tertiary Graduates in Mexico by Field of Study



Source: OECD.

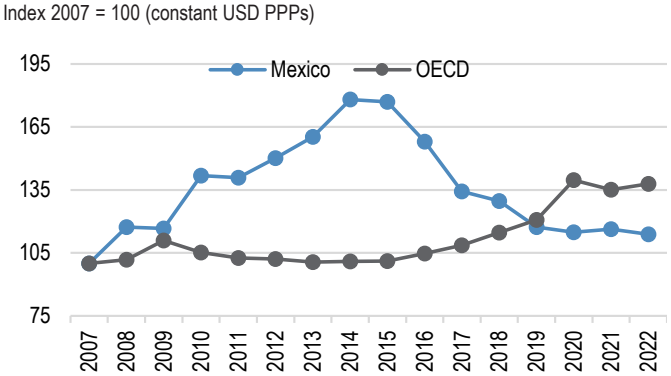
Figure 38: Percentage of Engineers



Source: OECD.

Government research & development budget index has been historically low and has decreased substantially in the past 10 years, at a -3.4% CAGR. As of 2022, Mexico's government R&D budget index was 113.8, 24.14 points below the OECD.

Figure 39: Government Research and Experimental Development Budget Trends



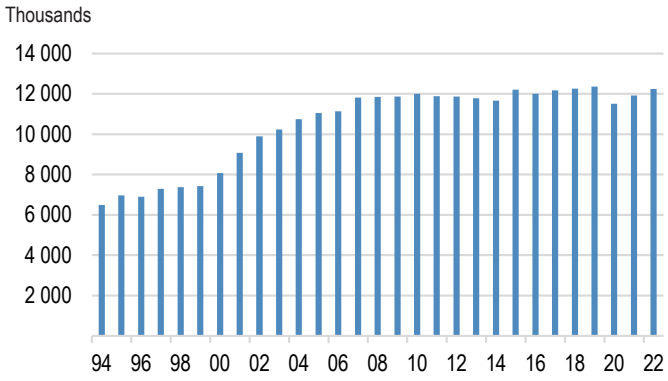
Source: OECD.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Migration & Remittances

Migration to the US (roughly 85% of total migration) remains an important phenomenon in Mexico but one that has changed notably over the past decade. Since the implementation of NAFTA 25 years ago, the number of Mexicans living in the US doubled from about 6 million people to just over 12 million in 2010 but has since then remained broadly stable. The US accounts for almost the entirety of Mexicans migrating abroad (92%). The slow recovery in the US economy after the Great Financial Crisis definitely had some bearing on the reversal in net migration flows to the US, but its recovery has not led to a significant change in net migration over the past half decade. In the 10 years prior to 2008, migration to the US grew at an average 5% annual rate, reaching 11.8 million in 2007. By contrast, in the 10 years through 2020, the annual rate of growth has dropped to -0.4%. The number of Mexicans living in the US picked up recently but is still below previous highs.

Figure 40: Mexicans living in the U.S.

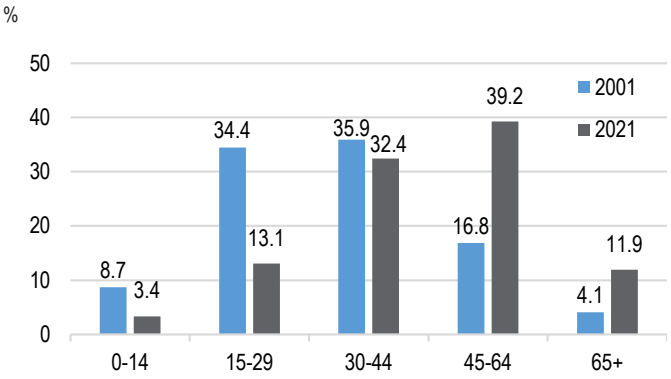


Source: CONAPO with data from U.S. Census Bureau.

Mexicans account for a large share of foreign population in US border states, reaching more than 50% in some cases, with the largest number of Mexican immigrants residing in California.

Mexican population in the US has aged, which is consistent with the shift in net migration dynamics. Back in the early 2000s, when net migration was at its heights, the Mexican migrant population in the US aged 29 years or younger made up more than 40% of the total. This composition has shifted dramatically, with this cohort dropping markedly to less than 20% of the total and that of people aged 45 years or older surging from 17% to just under 40%. Furthermore, migrants aged over 65 years went from 4% in 2001 to currently 12%. Unsurprisingly, the average age of the migrant population has risen from 35 years old to 45 years old as of 2022.

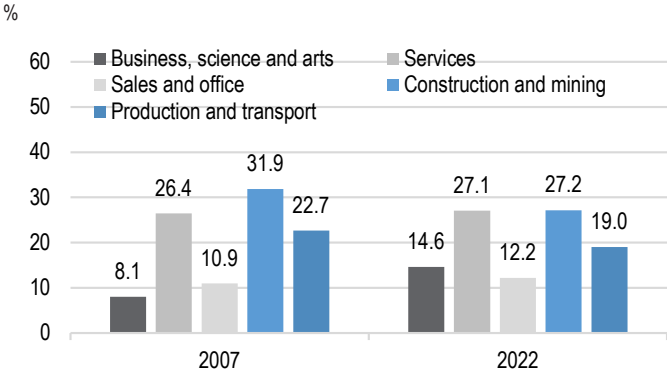
Figure 41: Age share by cohort



Source: CONAPO with data from U.S. Census Bureau.

Workers are being increasingly employed in higher skilled jobs. According to recent data, more than 55% of Mexican migrants work in the services sector, followed by workers in the construction, maintenance, or natural resources businesses with 27% and the remainder performing production or transportation duties. That said, there has been a significant shift in composition not only among these categories but also within services themselves, generally toward higher skilled, higher remunerated jobs

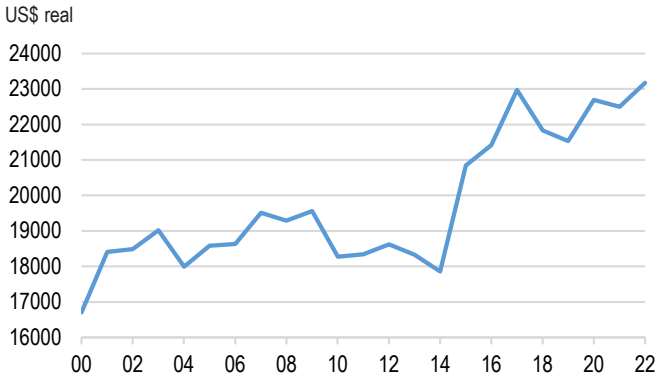
Figure 42: Share of Mexican migrant workers by sector



Source: CONAPO with data from U.S. Census Bureau.

The shift toward higher skilled jobs among Mexican workers in the US has also been reflected in the average annual income. The natural implication of the shift toward higher skilled jobs has been a significant increase in wage income over the past decade, when the average wage increased roughly 25% in real terms, reaching US$23,200 per year from about US$18,000 in 2012. The share of workers earning more than US$40,000 (nominal) has gone from less than 15% to 34% over the same time span. Finally, the poverty rate (as defined by US authorities) among Mexican migrants has dropped to 17% from 28% in 2012.

Figure 43: Average income of Mexican migrants in the US



Source: J.P. Morgan with data from Conapo.

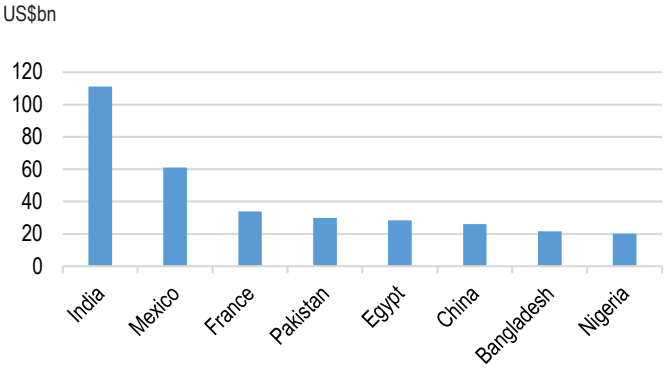
Immigrants residing in Mexico are not numerous, accounting for less than 1% of the population,but there has been a surge in inflows from Central and South Americans likely looking to reach the US. Legal foreign-born residents in Mexico are less than 1% of the population, with the lion's share being US-born residents. Interestingly, temporary residency has given way to permanent residency over the past handful of years. However, outside legal residents, or those entering Mexico for tourism or business purposes, the number of people arriving to Mexico has surged over the past several years. The number of people arriving under this status has gone from less than a million in 2014 to over 4.5 million in 2022. While there are no data on the nationality of people arriving under this status, a proxy of it – the number of people with an "irregular migration situation in Mexico" – has also surged over the same period, nearly doubling for Central America nationals and growing from almost nothing to over 159,000 for South American nationals.

Migration debate is heating up in the US as we approach US elections, and even if Mexico is not the source of the migration, it will likely still be in the spotlight. Although net migration of Mexicans into the US has been almost non-existent for years, the fact that Central and South American migrants largely cross through Mexico on their way to the US is likely to put Mexico in the spotlight given how the topic of migration in the US has grown increasingly debated. We think Mexico could be signaled as being too lenient in containing migration on its southern border. That said, we believe the tone could be less confrontational than was the case in the buildup to the 2016 US election.

While economic opportunities are the main cause for migration to the US, remittances are its logical consequence, and they are the second-largest source of FX inflows into Mexico. Transfers from abroad grew dramatically from their pre-pandemic levels, from around US$40 billion per year to more than US$60 billion currently. However, we think that remittances have likely peaked, particularly in real terms, and much more likely in GDP terms. This does not preclude remittances from remaining an important source of support for external accounts, but they should be an increasingly less meaningful source of current account financing going forward. As for their impact on growth, the impulse is likely past, even if remittances remain an important source of income for households, particularly lower-income households.

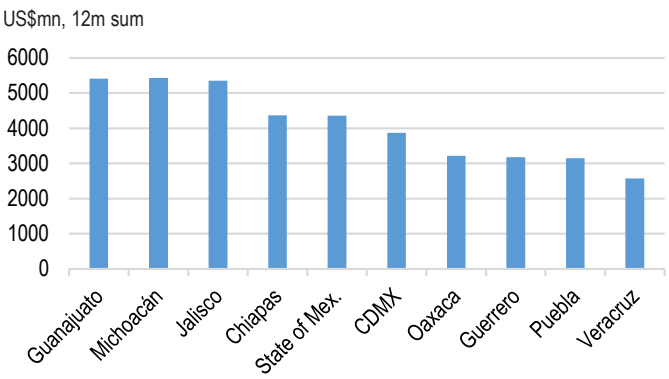
Remittances are especially important for certain regions of Mexico with high rates of emigration and for many low-income households where they constitute a sizable share of total income. By state, Jalisco and Michoacán stand as the largest beneficiaries of remittances, accounting for roughly 10% of total remittances inflows in 2020, each; Guanajuato trails closely (8.5%), followed by the State of Mexico and Mexico City, with roughly 5-6% each.

Figure 44: Remittances by country



Source: World Bank.

Figure 45: Remittances by states



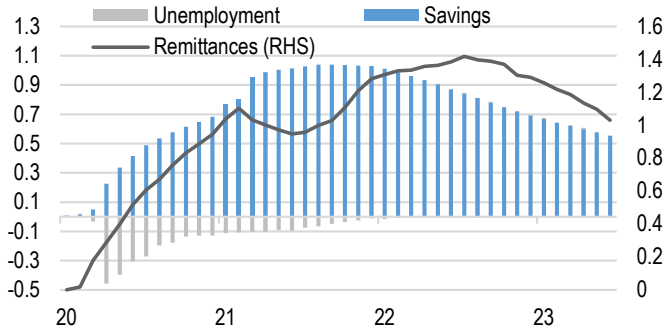
Source: Banxico.

The recovery in the US labor market in the half decade prior to the pandemic and the large amount of fiscal stimulus in the US post-pandemic were key drivers of recent remittance growth, but these have largely been exhausted,

in our view.

Figure 46: Contribution of US "excess savings" and unemployment to remittances

%-pt of GDP vs pre-pandemic, both axis

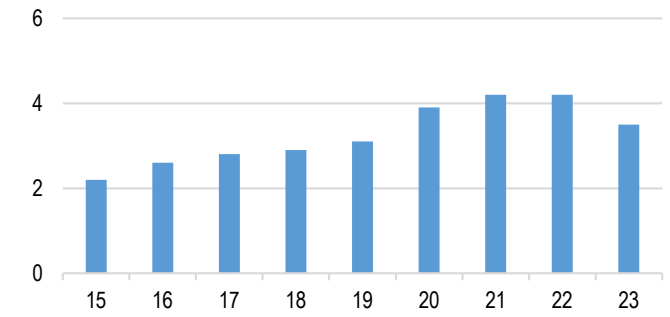


Source: J.P. Morgan.

Remittances are likely to grow less relevant for both external accounts and GDP, even if they could further increase in nominal terms. First, as said, net migration (from Mexico) into the US has become negative in past years, pointing to fewer new remitters in the future. Additionally, as mentioned above, demographics of Mexican-born workers living in the US have changed dramatically, with young people (new generations) accounting for an increasingly lower share of the diaspora. As the US-resident Mexican population ages, barring a dramatic resurgence in young people migrating to the US, ties with relatives in Mexico should become looser and hence lead to a decline in remittances in time. True, the composition of labor could provide an offset to this trend, particularly in the short term, but should prove insufficient to make up for demographics in the longer run. This is especially true given that workers that have resided the longest in the US or who are second- or third-generation Mexicans should intuitively have access to better remunerated jobs; as an example, the language barrier is less binding for them than for newcomers.

Figure 47: Remittances

% of GDP



Source: World Bank.

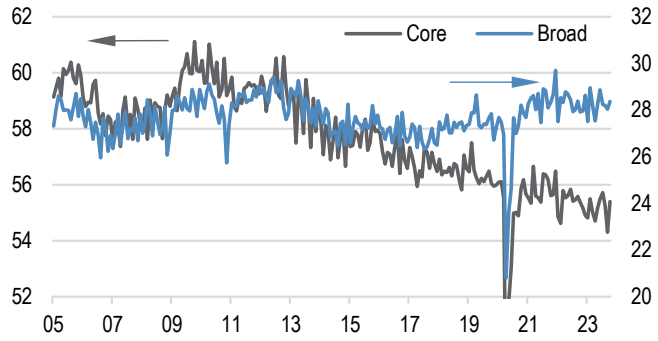
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Labor

The labor market in Mexico is still dominated by a large share of informal workers, which continue to account for roughly 54.5% of employees, but this share has been on a down trend. Having reached levels as high as 60%, the rate of informality in Mexico has been on a down trend, which was reinforced during the post-pandemic expansion. Mexico's labor force comprises a little under 61 million workers, consistent with a labor participation rate of 60% of the employable population (which stands at roughly 101 million). The rate of participation in the labor market has historically been higher among men than women, with the former standing at 76% and the latter at just 46%. The rate of unemployment, however, has been more evenly balanced across men and women.

Figure 48: Informality rates in Mexico

Core (left axis), Broad (right axis)



Source: INEGI.

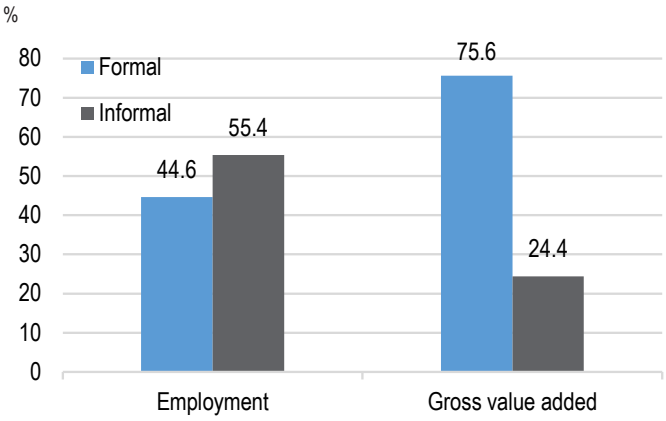
Following a large spike in joblessness in 2008, unemployment had been steadily declining in the decade through 2019; the trend was briefly interrupted by the pandemic but has resumed in force. The rate of unemployment in Mexico had averaged around 3.5% prior to the GFC. However, the economic downturn that followed the GFC sent the jobless rate spiraling up all the way to 6% and remained north of 5% for several years, mimicking the slow recovery witnessed in the US labor market. Since 2014 the jobless rate declined at a faster clip, a trend that continued following a short-lived spike in the immediate aftermath of the pandemic. The unemployment rate currently sits at 2.6%, a record low, which is also well below our estimate of NAIRU, which sits at roughly 4%. Modestly above-trend GDP amid a forceful decline in unemployment points to depressed productivity growth, a key feature of the economy for the past decades (see below).

Figure 49: Unemployment rate

Source: INEGI.

Data from INEGI show that labor informality is a key driver of low aggregate labor productivity, as we have analyzed in past research. Mexico's broad rate of informality, which comprises workers without adequate social security and institutional protection, remains quite elevated despite its recent decline. Having peaked at 60% of the employed population, the rate of informality has declined to around 55%. According to official data, as of 2022 labor productivity in the formal sector was almost four times higher than in the informal sector, with formal workers accounting for 76% of total value added in the economy while informal workers produce the remaining 24% of total value added. With this in mind, it is unsurprising that Mexico's aggregate labor productivity is extremely low, in fact the lowest among OECD countries and less than one-third of US labor productivity.

Figure 50: 2022 Gross Value Added and Employment by Sector



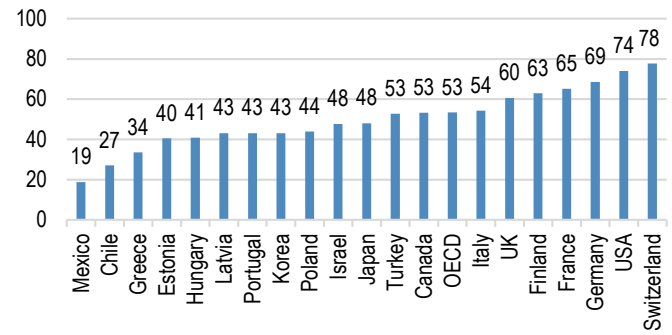
Source: INEGI.

According to the OECD, Mexico has the second highest number of average hours worked among organization members but still the lowest GDP per hour worked. Mexicans work 2,267 hours every year, while the OECD average is 1,734. However, Mexico's output per hour worked remains the second lowest within the OECD. Again this shows that it

takes little in terms of GDP growth to get unemployment rates down in the country as productivity remains weak despite its recent improvement.

Figure 51: OECD selected countries' labor productivity

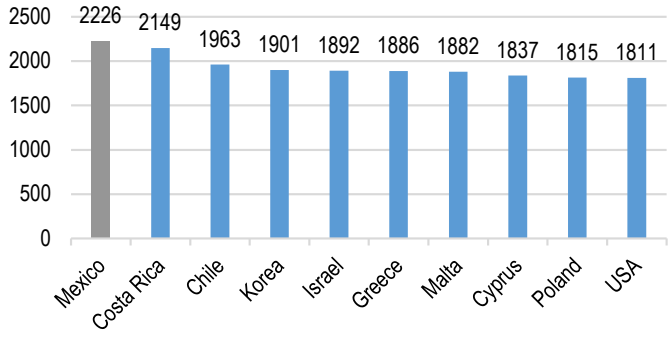
US$ per hour



Source: OECD. Data as of 2022.

Figure 52: Average annual hours worked – Top 10 Countries

Hours

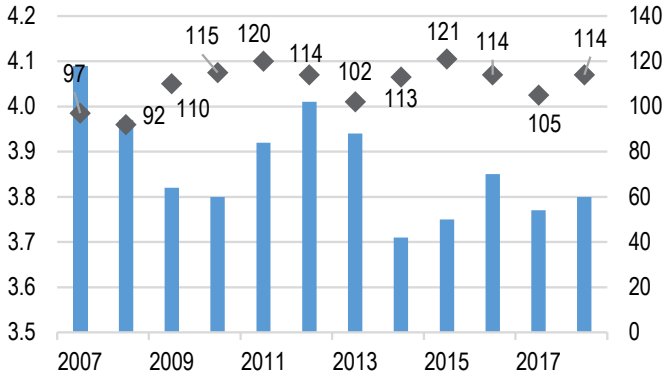


Source: OECD. Data as of 2022.

One of the potential causes of informality is the rigidity of Mexico's labor market, which has rendered it quite inefficient. Government efforts, such as the late 2012 labor reform, the first since 1940, should help address the issue as its changes include simplifying hiring and firing terms as well as linking salaries and promotions to productivity. This could eventually lead to a reduction in informality and an increase in productivity. According to the World Economic Forum (WEF) Mexico ranks 105th out of 137 for labor market efficiency. While the reforms were expected to bring about changes in these metrics, Mexico's labor market efficiency has barely changed since 2012, and in fact it has deteriorated on the margin. In particular, Mexico ranks poorly in terms of female participation in the labor force (114), hiring and firing practices (98), redundancy costs (96), and effects of taxation incentives on work (94). Furthermore, the current administration has questioned some elements of earlier reforms, although the USMCA, approved in 2020, should provide a strong incentive for some of its most relevant aspects to remain in place.

Figure 53: Labor Market Efficiency

Score* (left axis); Rank (right axis)

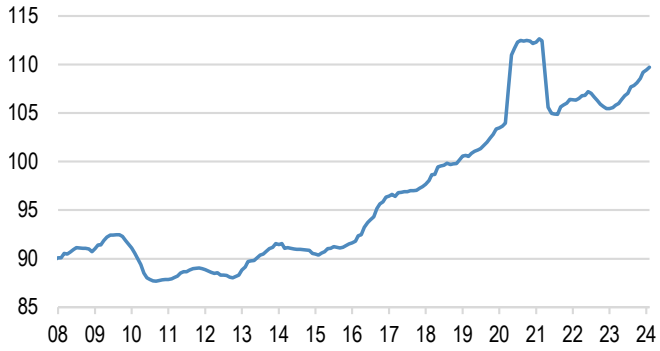


Source: WEF. * 1=Least efficient, 7 = Most efficient. Out of 140.

That said, the current AMLO administration has doubled on efforts to improve labor market regulations, focusing in particular on improving worker rights and bargaining power. Among other things, the current administration has looked to boost workers' purchasing power through a sizable increase in the country's minimum wage over the past years, which we expect to continue. At the same time, it has looked to limit union leaders' influence and grant different rights to unionized workers to boost their bargaining power (free vote when choosing their union leader, periodic revision of collective contracts, and the creation of a special council to deal with disputes between employees and employers). The reform also enacts other measures to increase workers' welfare, such as granting social security to domestic household workers, eliminating gender discrimination, and protecting rural workers. Recent changes to outsourcing laws in the country are also aimed at improving workers' conditions. The reform is a positive step in boosting workers' rights, although greater worker bargaining power amid rising minimum wages absent productivity could lead to artificially high wage growth that could result in cost pressures. Furthermore, it could lead to further rigidities in the labor market. In fact, unit labor cost (ULC) has risen steadily since 2018.

Figure 54: Manufacturing Unit Labor Cost

Index, 12mma; 2018=100;

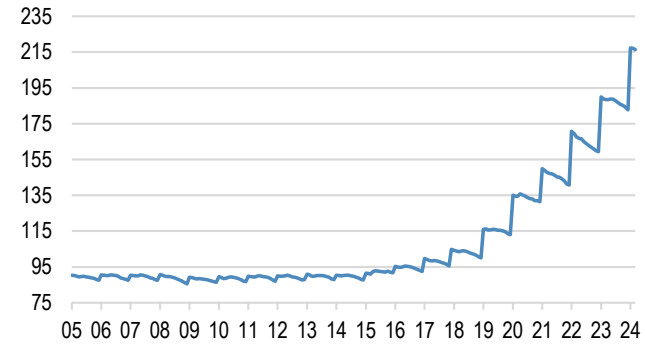


Source: J.P. Morgan with data from INEGI.

There has been a sharp increase in real wages over the past several years, following efforts made to boost, in particular, the minimum wage. In fact, labor income has reversed a big part of its loss of share in national income over the two decades to 2018. The minimum wage has surged in real terms since 2017 and is likely to continue to rise as efforts to boost it should remain in place beyond the AMLO administration. The minimum wage has risen 120% in real terms, whereas broad economy real wages and real wage income have also been on a marked rise, though much less steep, since 2017-18. The rapid increase in real wages plus solid employment gains have led to a sharp increase in wage income's share in national income, largely reversing two decades of steep decline. If not accompanied by sustained investment, this is bound to create economic imbalances.

Figure 55: Real minimum wage

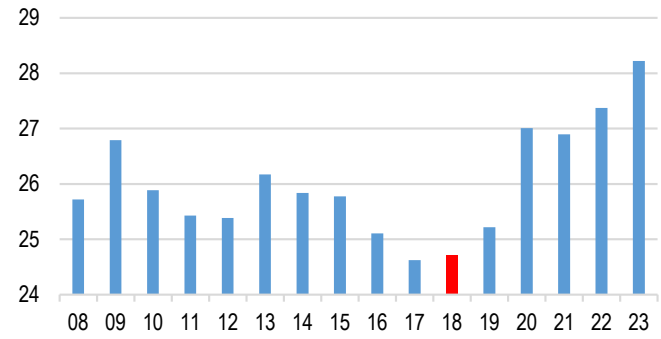
Index; Dec 2018=100



Source: Banxico.

Figure 56: Labor income as share of national income

% of total



Source: J.P. Morgan with data from INEGI.

Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

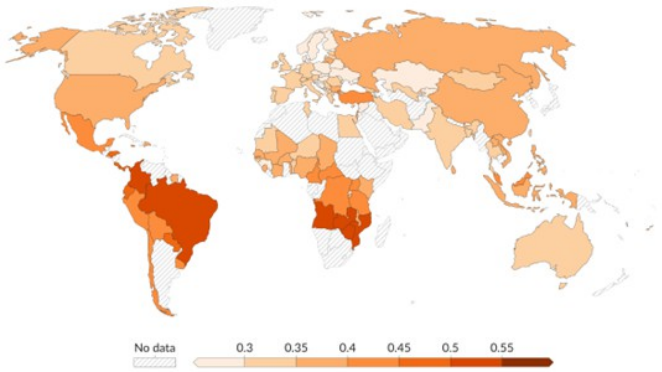
Income & Wealth Distribution

According to the World Bank, Latin America is the most unequal region in the world, and Mexico is no exception but has improved in the past 10 years. Despite the progress of the last decade, particularly when it comes to reducing extreme poverty, LatAm countries are still more unequal than countries with similar levels of development, with their social indicators still below those expected for their average income and wealth levels.

The GINI coefficient measures the degree of inequality of income in a country. If income were distributed with perfect equality, the coefficient would be zero. Mexico's GINI coefficient was 43.5 in 2022, down from 49.6 in 2012. While the coefficient has improved from its highs of 1994 and 2000 (53,4), there are still significant wealth imbalances in the country. During the pandemic Mexico had the highest GINI coefficient in LatAm (0.75), followed by Colombia (0.72) , Chile (0.71), Peru (0.69), Brazil (0.68), and Argentina (0.56).

Figure 57: Global GINI Coefficient

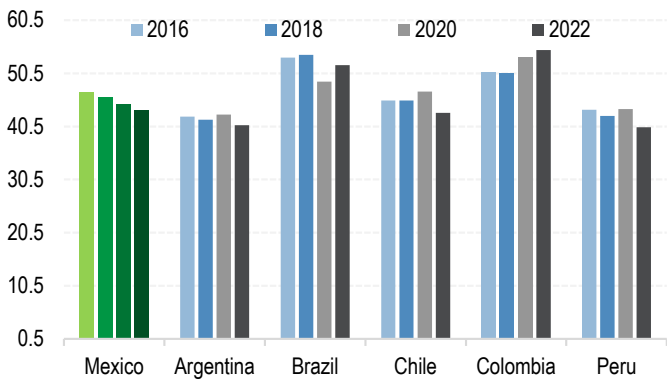
GINI Coefficient



Source: Our world in data. Note: The Gini coefficient measures inequality on a scale from 0 to 1. Higher values indicate higher inequality.

Figure 58: GINI Coefficient for LatAm Countries

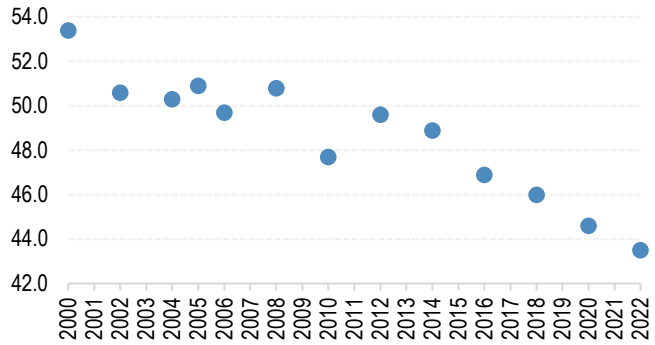
GINI Coefficient



Source: World Bank.

Figure 59: Mexico Historical GINI Coefficient

GINI Coefficient

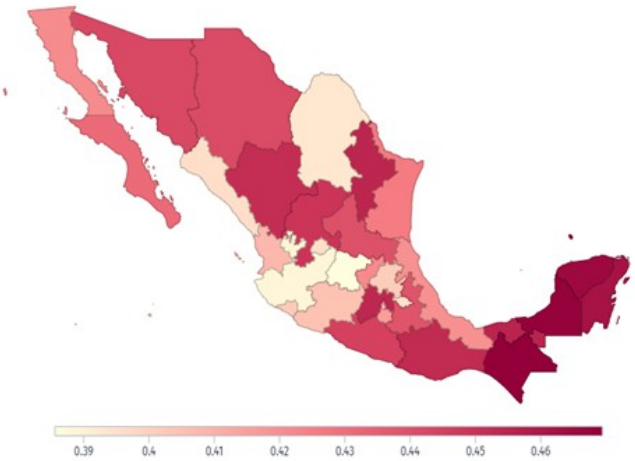


Source: World Inequality Database.

Inequality also varies considerably by state, with the North of the country having the lowest Gini coefficient and the South the highest. By state, Chiapas is the most unequal and Tlaxcala the most equal.

Figure 60: GINI Coefficient by State

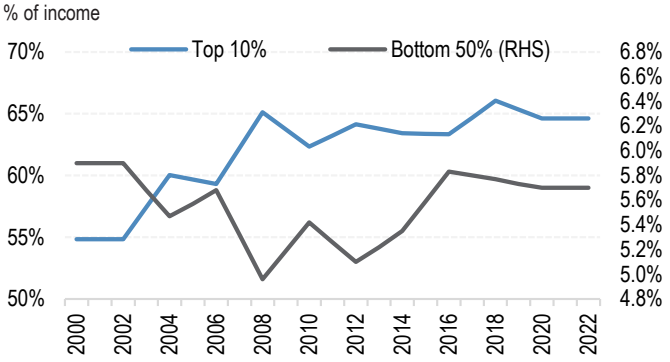
GINI Coefficient



Source: Ministry of Economy.

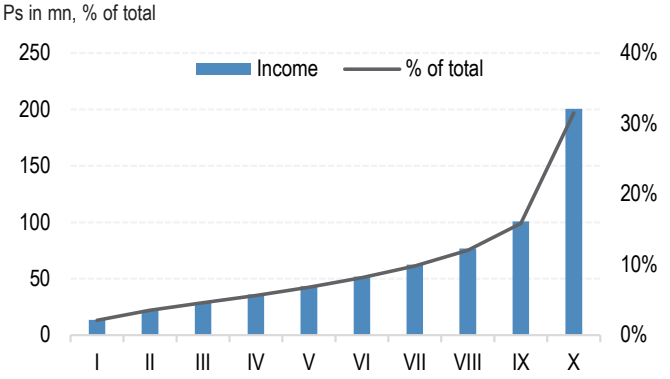
Another way to look at this is to see how much income is in the hands of the richest and the poorest. The top 1% richest concentrate 26.8% of the income and the top 10% richest concentrate 64.6%, while the bottom 50% have only 5.7%.

Figure 61: Income Held by Share of Population



Source: World Inequality Database.

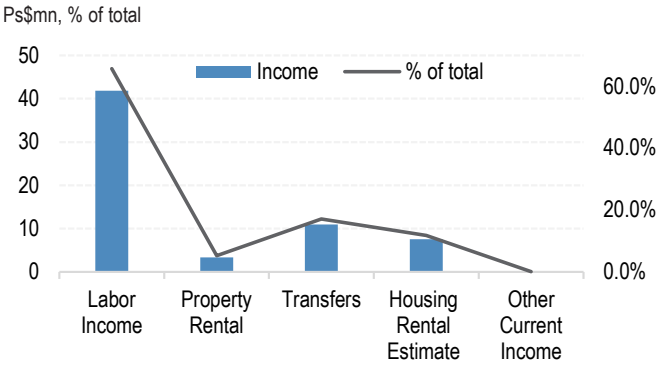
Figure 62: Total Quarterly Average Current Income by Household in Deciles of Households



Source: INEGI. Note: Deciles made up according to the ranking of households according to their quarterly total current income.

According to the INEGI, roughly 66% of household income comes from labor and 34.3% from other sources, the bulk of it is employment income (65.7%) and transfers (17.2%).

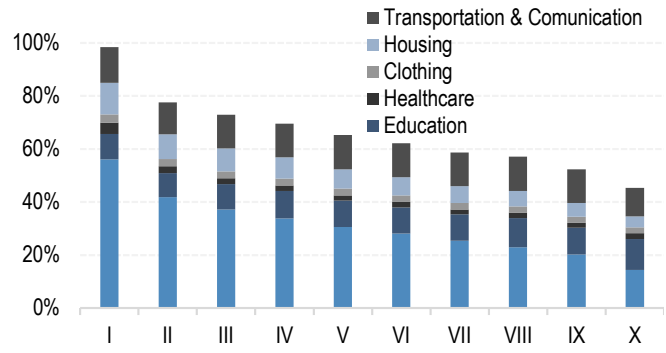
Figure 63: Total Quarterly Average Current Income by Household by Source



Source: INEGI.

Regarding income allocation, the lowest decile spends over half of its income on food, beverages, and tobacco compared with 14% spent by the richest decile. Education spending represents 12% of the wealthiest 10% of the population total expenditures, above the 10% allocated by the poorest decile as well as the average. Healthcare spending across income deciles is quite consistent, between 2% and 4%.

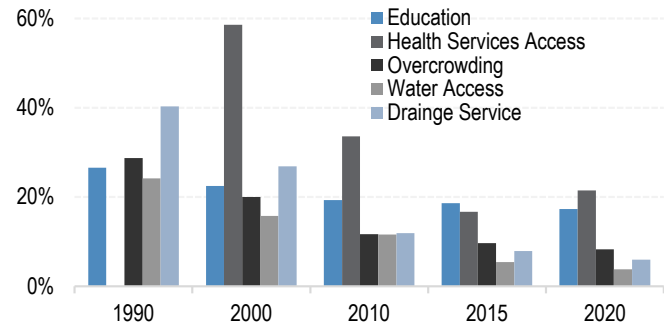
Figure 64: Income Allocation per Income Decile



Source: INEGI.

During 2023, the average quarterly income for the lowest decile was Ps$13,411. This amount is 21% that of the overall average of Ps$63,696, and 7% that of the Ps$200,696 earned on average by the wealthiest decile. According to data from CONEVAL (National Council for the Evaluation of Social Development Policies) and the latest household income and expenditure survey made by INEGI in 2023, 37.0% of the Mexican population lives below the food poverty line. **That is, 37 of 100 Mexicans cannot afford the basic food basket vs 41% at the beginning of 2010.**

Figure 65: Social Lacking Indicators



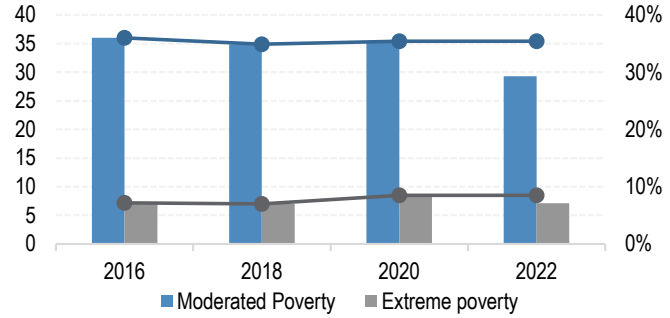
Source: Coneval.

From 2016 to 2022, the number of people living in poverty decreased from 43.2% of the total population to 36.3% in relative terms, and in nominal terms it decreased from 52.2 mn to 46.8 mn. That is, 36% of the population in Mexi-

co lives below the income poverty line. For the same period, extreme poverty in Mexico increased only 0.1% in percentage terms, but in nominal terms it has gone up from 8.7mn to 10.8mn people. We believe that the increase in extreme poverty was related to little fiscal support during the pandemic and the reverberations of a long health crisis across economic activities.

Figure 66: Population Living in Poverty

mn people, % of population



Source: Coneval.

Protection of the poorest has improved substantially since the 1995 peso crisis. In 1997, when the population living under poverty conditions stood at c.38%, President Zedillo's government launched the social program called Progresa, which benefitted c. 2.6mn homes in the country.

Government spending on social programs is currently more than double in real terms what it was in 1995 at the onset of the "Tequila Crisis." In the 2024 federal budget, 26% of the GDP is destined toward public spending. The federal government will distribute Ps$741 bn ($41.7 bn or $5,812 per capita) to the President's star projects, which include pensions for the elderly *(Pensiones para Adultos Mayores)*, support for field workers *(Sembrando Vida)*, and support for students who are neither studying nor working *(Jóvenes Construyendo al Futuro). This represents 11.4% of total government spending.*

The main poverty reduction programs as of 2024 are:

- The *Pensión Para Adultos Mayores* program attends to the population over 65 years old by giving them a bimonthly pension of Ps$4,800 in 2023 and Ps$6,000 in 2024. The budget destined to this program is now 7.4x larger in real terms than the one in 2018. One of AMLO's key social programs is to double this amount.
- The *Becas* program gives scholarships to students so that they're able to continue studying in higher levels of education. The budget for this program has seen a high increase in this administration, with the 2023 budget being 9.3x higher than the one in 2018.
- *Sembrando Vida* seeks to combat both rural poverty and environmental degrading through the rehabilitation of damaged terrain with the harvesting of food and wood products. Workers are given Ps6,000 monthly for working in their own fields.
- The *la Escuela es Nuestra* program delivers resources directly to school communities of public preschool, primary, and secondary education that are located in highly marginalized areas.
- The *Pensión Para Personas con Discapacidad* program attends to people from 0 to 65 years old with permanent disabilities in order to improve the monetary income of their household.
- The *Jóvenes Construyendo el Futuro* program, which connects people between the ages of 18 and 29 who neither study nor work with companies and institutions to help with their professional development. The program includes monthly support of Ps$7,572 as well as medical insurance.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

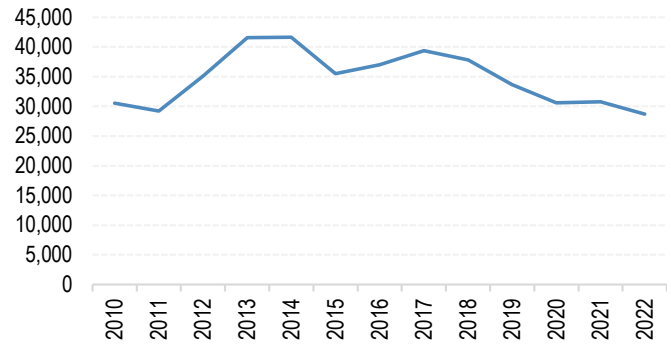
Security

As in the rest of Latin America, security is a major issue that permeates Mexico's society and fundamentals. The issue has enormous public visibility, is very pressing, and is a notable feature of the region compared to other places. Problems related to crime, drug trafficking, degradation of public spaces, overcrowding in prisons, and an increasing sense of impunity, especially in large urban centers, represent a very high barrier to the country's development.

According to the World Economic Forum (2017-2018), Mexico is poorly ranked and below the world average in all indicators associated with crime. Among 140 countries, Mexico was ranked 134th in reliability of police service and 134th in organized crime, and it has a homicide rate of 28 per 100,000 inhabitants.

Figure 67: Crime Rate in Mexico

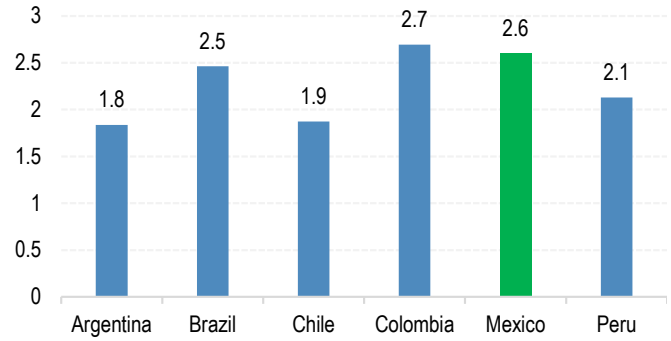
occurrence per 100,000 inhabitants



Source: INEGI.

Figure 68: Peace Index

Index



Source: Economics and Peace. Note: the minimum is 1.1 meaning the state of peace is very high and the maximum is 3.4 meaning the state of peace is very low.

Mexico embarked on the so-called war against drugs and organized crime during President Calderón's administration (2006-12), which initially led to a spike in violence. According to data from the World Bank, between 2007 and 2012 the number of intentional homicides in Mexico spiked from 8.2 per 100,000 people to 22.4 by the end of President Calderón's administration in 2012. Initially, the assessment of the security strategy of the Calderón administration was negative on this basis, but the rapid improvement immediately after has generated more mixed opinions. Some argue that the Peña Nieto administration shift in strategy away from direct confrontation to organized crime was responsible for the rapid decline in premeditated homicides and other crimes such as kidnapping, auto theft, and extortion, the latter thought to be the consequence of the splitting of big drug cartels into multiple smaller units.

Following a relatively rapid decline in organized crime at the end of the Calderón administration and at the start of the Peña Nieto six-year term, homicides have spiked again in the last few years. This had led to the conclusion that the Calderón administration between 2006 and 2012 was heading in the right direction, and the PRI's strategy between 2007 and 2018 to end direct confrontations of drug cartels might have been a policy mistake. Political analysts claim that criminal organizations took advantage of the no-hostilities policy to organize and diversify operations. It is also claimed that the failure to approve the key feature of Peña Nieto's strategy to fight off organized crime, the *Mando Único*, was partly responsible for the renewed spike in violence. The *Mando Único* aimed to organize under a single command federal, state, and municipal police forces, arguing that these could have been infiltrated by organized crime and/or lacked the capability to fight off criminal groups.

In the last years of the past administration, the government managed to secure the approval of the Law of Domestic Security, which looked to regulate the conditions under which federal entities, including the army and the navy, could intervene in embattled states and municipalities where local authorities had been overwhelmed. The law elicited mixed opinions, with some arguing that it regulates and gives certainty to the actions undertaken by federal authorities and helps compensate for institutional weaknesses at local levels of government, while others have criticized the law as an intrusion in local affairs and the militarization of the country's security structure. The distinct views on the recently approved law show the complexity of the matter and the difficulty in finding a functional strategy to fight crime.

The AMLO administration made an effort to consolidate security forces by creating the National Guard in parallel to the Army. The National Guard created a special police force comprising the Federal Police, the Army, and the Navy. The joint force already consists of more than 128,000 officers; this represents 80% of the 161,000 expected at the end of 2024. The National Guard is in charge of reinforcing security in troubled states and municipalities. Currently, most of

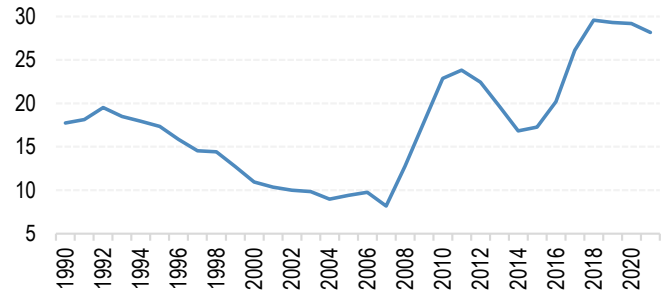
the National Guard forces have been deployed in the central and southeast parts of the country in an effort to curb illegal immigration, a demand from the US government back in 2018. The State of Mexico, Mexico City, Michoacán, and Jalisco account for about 30% of the total capacity of the new security force.

While the intention was to eventually withdraw the Army from the streets, the government decided instead to extend the responsibilities of the armed forces, from health activities (vaccination) to construction of AMLO's priority infrastructure project. The Army's involvement has been particularly strong in the management and construction of the Maya Train and the new airport in Mexico City (Aeropuerto Internacional Felipe Angeles, or AIFA). At the start of the second half of the administration, AMLO ordered the Army to be in charge of certain customs activities and has slowly been giving them control of a few airports (AIFA and the recently opened Tulum Airport).

In the meantime, neither the National Guard nor the Army have been successful in the fight against organized crime, which continues to diversify and take advantage of a less confrontational stance by the AMLO administration.

Figure 69: Intentional Homicides in Mexico

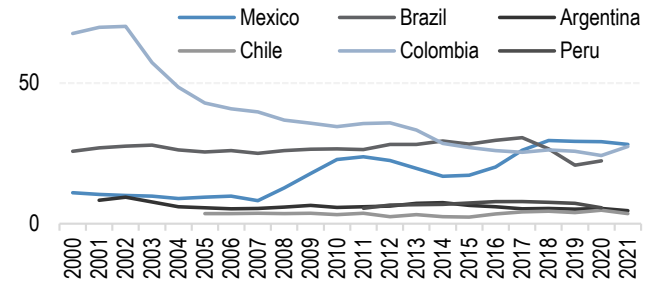
per 100,000 people



Source: World Bank.

Figure 70: Intentional Homicides in LatAm Countries

per 100,000 people

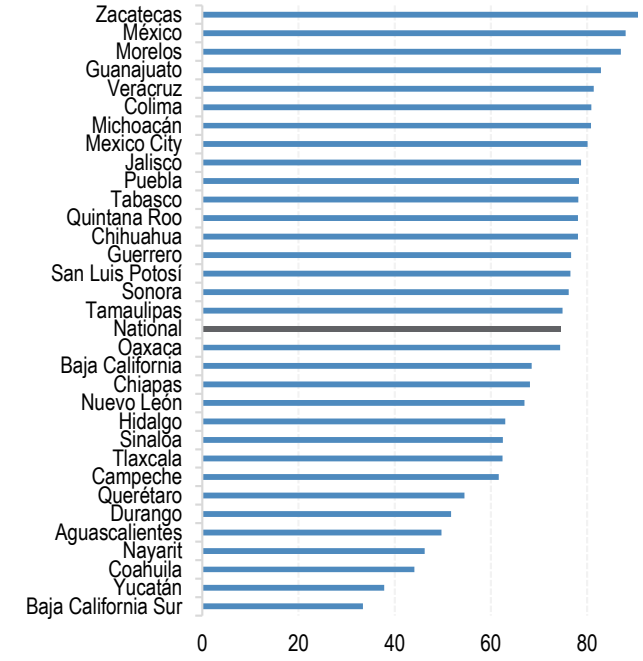


Source: World Bank.

A lingering negative perception of security. According to the INEGI, 61% of the adult population considers the city in which they live to be insecure. While the share is down from the near-80% high reached early in 2018, it remains quite elevated. Furthermore, if one considers the state rather than the city in which people live, nearly 74.6% of the population considers their state to be unsafe. This is seemingly affecting people's behavior, with 42.8% of adults preventing their children from going out and 41.9% of those surveyed not going out at night due to the fear of being a victim of a crime.

Figure 71: Perception of Public Security by State

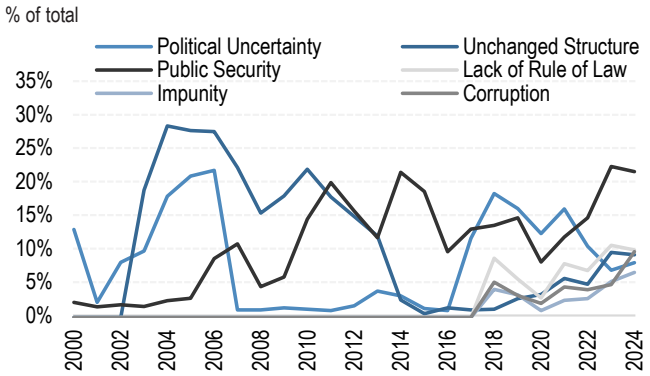
percentage of population that perceive insecurity



Source: INEGI.

According to a survey conducted by the central bank, public insecurity is the third most cited factor as a hurdle to growth. Similarly, the World Economic Forum (WEF) cites crime as one of the key drags for doing business in Mexico.

Figure 72: Biggest Hurdles for Growth



Source: Banxico.

According to the Financial Intelligence Unit from the Ministry of Finance, around 46 high-level organized crime groups are now operating in the country. Each state has on average three criminal organizations. Particularly concerning is the diversification of activities of these groups, from drug trafficking to extortion, kidnapping, and prostitution.

Figure 73: Mexico Cartels

Source: J.P. Morgan with data from Congressional Research Service

The National Strategy for Peace and Security 2018-2024 is a policy framework to achieve peace and security through a multifaceted approach. The strategy seeks to transform law enforcement agencies to prioritize human rights and civilian control and involves the creation of the National Guard for policing and maintaining public safety. It also aims to reform the justice system, address root causes of violence, and foster a culture of peace through community engagement and socioeconomic programs.

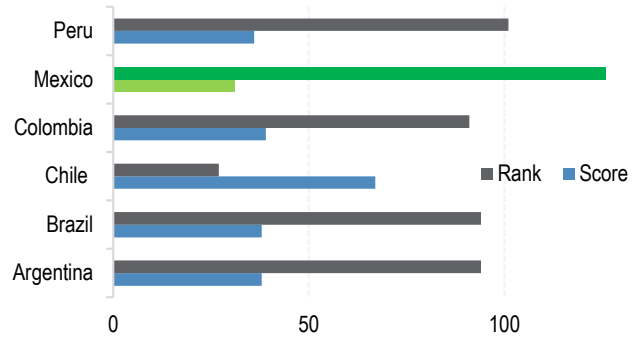
Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Corruption

Impunity and corruption are nothing new for Mexico. According to Transparency International's 2022 ranking, Mexico ranks poorly at 126 out of 180 countries, with a score of 31, with 0 the most corrupt and 100 the least. Mexico's position increased by 4 vs 2019, when it was ranked 130. Within LatAm countries, all are ahead of Mexico with Chile (27) leading, followed by Colombia (91), Brazil (94), and Argentina (94).

Figure 74: Global Corruption Perception Index for LatAm Countries

rank, score

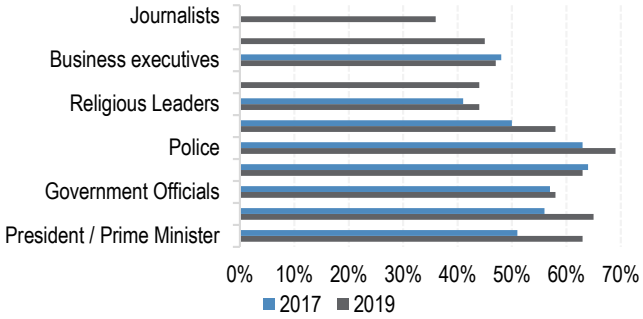


Source: Transparency International.

A survey conducted by Transparency International in Latin America shows that, for citizens, the most corrupted institutions in Mexico are those related to the government. Corruption's twofold historical dimension comes through both in its old roots in Mexican politics and in its consequent acceptance as an everyday practice.

Figure 75: Mexico's Corruption by Institution

% of people

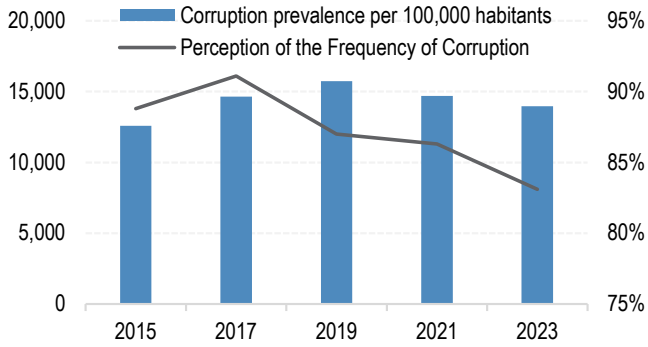


Source: Global Corruption Barometer Latin America & the Caribbean. Note: percentage who think that most or all people in these institutions are corrupt.

The most prominent forms of corruption in Mexico are bribery, procurement and rent-seeking, "clientelism," patronage, and embezzlement. Moreover, while corruption is present in many sectors of the state and the economy, it is in the areas of extractive industries, the energy sector, and healthcare where there has recently been more emphasis. As the administration of Lopez Obrador reduced accountability and transparency, the monitoring and oversight of government funds has worsened.

Figure 76: Corruption Prevalence and Perception of Frequency

Rate, % of frequency



Source: INEGI.

Figure 77: Most Notable Corruption Cases in the past 10Y

Case	Date	Description
Tha Casa Blanca (White House) Investigation	Nov-14	The First Lady, Angélica Rivera, had purchased a house worth more than $7mn in an exclusive Mexico City neighbourhood. The house had been built by Grupo Higa, a construction company that made multi-milliondollar profits thanks to public contracts in the State of Mexico during the tenure of Enrique Peña Nieto as state governor. Rivera later returned the mansion, and a government investigation found no wrongdoing by Peña Nieto or his wife.
The Odebrecht case	Dec-16	The Brazilian construction company Odebrecht admitted to having paid bribes amounting to $788mn and agreed to a record-breaking fine of at least $3.5bn. The company had paid off politicians, political parties, officials of state-owned enterprises, lawyers, bankers and fixers to secure lucrative contracts. The former director of Odebrecht Mexico, Luis de Meneses, directly implicated Emilio Lozoya, the former director of Pemex.
The Master Scam	Sep-17	It was an investigation carried out by a news portal and the organization Mexicans Against Corruption and Impunity which revealed the loss of more than $400mn of public money due to a system of 128 ghost companies. In this system, contracs were assigned irregularly for the provision of services in at least eleven state agencies, some of the contracts were not fulfilled and others had a smaller cost than the assigned budget.

Source: Transparency International.

Attempts to counter corruption in Mexico have not had much documented success. Efforts began in 2012 during Peña Nieto's presidency, who included an anti-corruption dimension in his strategy. These efforts resulted in the creation of the National Anti-corruption System (SNA), which was enacted as Law in 2017. The SNA can be divided into two sub-systems: transparency and oversight. Transparency aims to increase availability of information about anti-corruption investigations, audit documents, and general governance information. It is comprised of the Superior Audit of the Federation (ASF), the National Institute for Transparency, Access to Information and Personal Data Protection (INAI), and the Citizen Participation Committee (CPC). Oversight is the investigative and prosecutorial arm of the SNA, charged with sanctioning administrative deviance, misdemeanors and crimes, as well as general corruption crimes. It includes the Ministry of Public Administration (SFP), the ASF, the Special Prosecutor for Combating Corruption, the Federal Court of Administrative Justice (TSJA), and the judiciary committee.

The INAI is Mexico's autonomous federal agency tasked with promoting and guaranteeing the right to access public information and protecting personal data. President Lopez Obrador

announced a package of constitutional reforms prior to the end of his administration in which he includes a reform that would eliminate several independent agencies, in which the INAI is included. It is intended to return the powers of the autonomous bodies to the agencies that previously held those authorities.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Competitiveness

Mexico ranked 56 out of 64 countries in the 2023 IMD World Competitiveness Ranking, one below the 2022 rank and only ahead of Bulgaria, Colombia, Botswana, Brazil, South Africa, Mongolia, Argentina, and Venezuela. Denmark leads the ranking as the most competitive economy in the world, followed by Ireland. Only Chile (44) and Peru (55) are ahead of Mexico in LatAm, while Colombia (58) and Brazil (60) are behind.

Figure 78: IMD World Competitiveness Index

Index 0-100

Rank	Country	Score
1	Denmark	100.00
2	Ireland	99.71
3	Switzerland	99.13
44	Chile	60.25
55	Peru	48.10
56	**Mexico**	**47.68**
58	Colombia	46.26
60	Brazil	42.09
62	Mongolia	35.56
63	Argentina	34.03
64	Venezuela	26.18

Source: IMD.

The IMD analyzes and ranks countries according to how they manage their competencies to achieve long-term value creation. The overall rank consists of four sub-indexes: Economic Performance, Government Efficiency, Business Efficiency, and Infrastructure. Considering the four categories, Mexico's best ranking is in Economic Performance (30th). Both Infrastructure and Government Efficiency are very poorly ranked at 59 and 60, respectively.

Figure 79: Mexico's Rank Breakdown

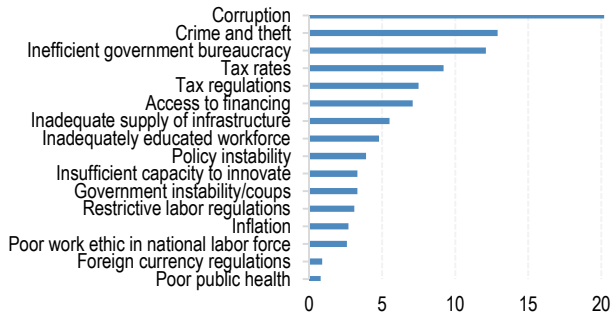
Economic performance	**30**
Domestic Economy	41
International Trade	54
International Investment	27
Employment	8
Prices	29
Government Efficiency	**60**
Public Finance	44
Tax Policy	46
Institutional Framework	59
Business Legislation	61
Societal Framework	58
Business Efficiency	**51**
Productivity & Efficiency	47
Labor Market	40
Finance	60
Management Practices	**53**
Attitudes & Values	50
Infrastructure	**59**
Basic Ifrastructure	60
Technological Infrastructure	62
Scientific Infrastructure	48
Health and Environment	54
Education	61
Overall Performance	**56**

Source: IMD.

Although Mexico is generally perceived as having sound macroeconomic fundamentals, it ranks poorly in terms of institutional strength. According to the WEF competitive index (2020), Mexico's rating in terms of institutional soundness stands in 123rd place out of 141 countries. Organized crime, police reliability, and government corruption are, broadly speaking, the main drags on the country's institutional framework, alongside weak social capital. In most of these metrics Mexico ranks at the very low end of the spectrum, with its ranking in terms of organized crime and police reliability at 134 for both.

Figure 80: WEF Most Problematic Factors in Doing Business in Mexico

score



Source: WEF.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Despite the perceived institutional weakness, Mexico continues to rank relatively high in terms of *Ease of Doing Business*, an index compiled by the World Bank. In fact, according to the 2020 World Bank's index, Mexico ranks first across all Latin American countries when it comes to ease of doing business (with a score of 72.4), followed by Puerto Rico and Colombia. Other big Latin American countries such as Brazil and Argentina lag far behind Mexico in this regard. Mexico's overall position across the 190 countries comprised in the sample is 60th, though paying taxes, registering property, getting electricity, dealing with construction permits, and starting a business in general remain troublesome.

Figure 81: Ease of Doing Business Score for Latin America & Caribbean

Country	Ease of Doing Business Score
Mexico	**72.4**
Colombia	70.1
Peru	68.7
Brazil	59.1
Argentina	59
Regional Average	**59.1**

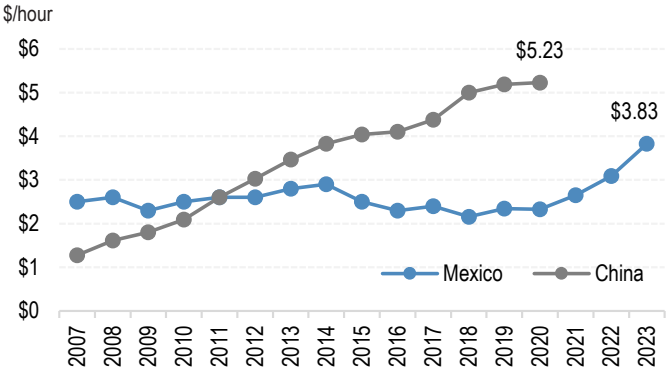
Source: World Bank.

Figure 82: Mexico's Ease of Doing Business Category Breakdown

Source: World Bank.

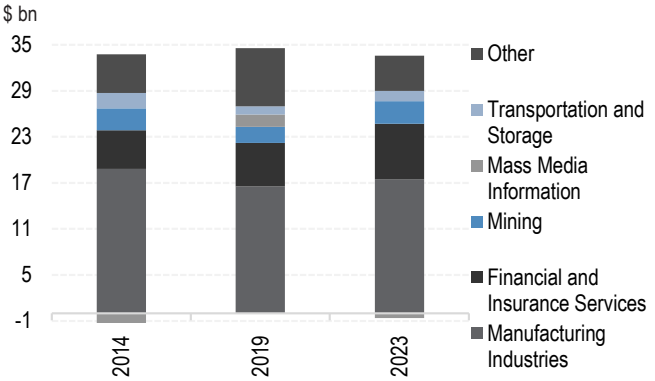
The one sector that has continued to see increased competitiveness is the manufacturing sector. Wage competitiveness remains elevated in Mexico as evidenced by the fact that Chinese manufacturing wages, which were seen as a big advantage for the Asian economy, are now higher than in Mexico, although they have still increased. While this has depressed domestic demand, it has continued to boost Mexico's external competitiveness. Foreign direct investment (FDI) in the manufacturing sector as a whole continues to account for the lion's share of total FDI, with the auto sector, in particular, attracting large sums of investment in the past several years. Other advantages for Mexico's manufacturing sector are its proximity to the US and low logistics costs. Earlier reforms to generate more efficiency and lower costs in the energy sector, however, are being back-tracked.

Figure 83: Mexico vs. China Wages in the Manufacturing Sector



Source: INEGI, Trading Economics and US Bureau of Labor Statistics.

Figure 84: 2023 FDI per Sector



Source: Ministry of Economy.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Economy

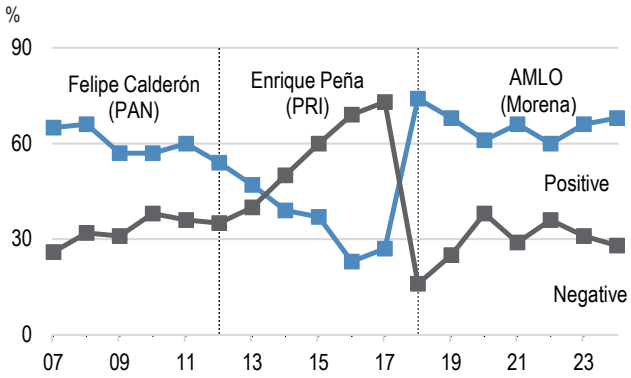
Brief Political Economy Retrospect

2024 General Election background

The largest federal election in Mexico's history occurred on June 2. A new president (there is no reelection in Mexico), Claudia Sheinbaum, was elected for a six-year term (2024-2030), while both chambers of Congress (Senate and Deputies' Chamber) and nine governorships were up for grabs.

Throughout the political race, Morena was the clear frontrunner according to most polls for both the president and both chambers of Congress. Furthermore, the incumbent party also led in seven out of the nine states in which gubernatorial elections took place. While the approval of the incumbent party at the start of the race did not distance too much from what previous governments faced, it was remarkable how Morena had been positioning at both the legislative and state level in spite of suffering some notable blows in the 2021 midterms.

Figure 85: Presidential approval comparisons

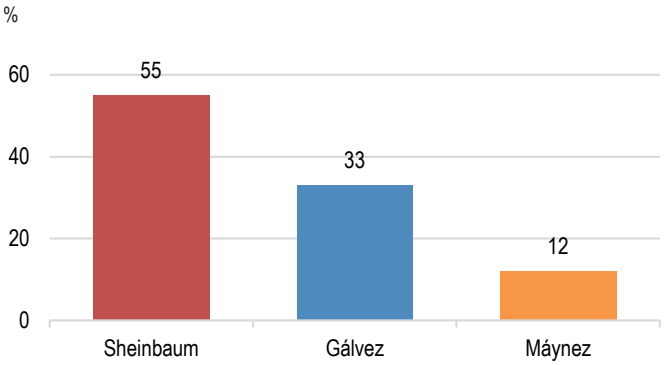


Source: Oraculus Poll of Polls. End-of-year polls and for 2024 is April.

Mrs Claudia Sheinbaum from incumbent party Morena, Ms Xóchitl Gálvez (the nominee for the opposition center-right alliance), and Mr Jorge Alvarez Maynez (Social Democracy party known as Movimiento Ciudadano, or MC) registered and won their places as presidential candidates in each of the "primary" elections of their parties.

While ahead of the primaries Sheinbaum and Gálvez were positioned for a closer race, the confirmation of a third and late contender (MC) and the lack of momentum and poor campaigning from Galvez resulted in a wider gap between the first and second place throughout the race. The debates did not change preferences significantly, and Sheinbaum was ahead in most polls by an average of 20%-pts in early May, one month ahead of the election.

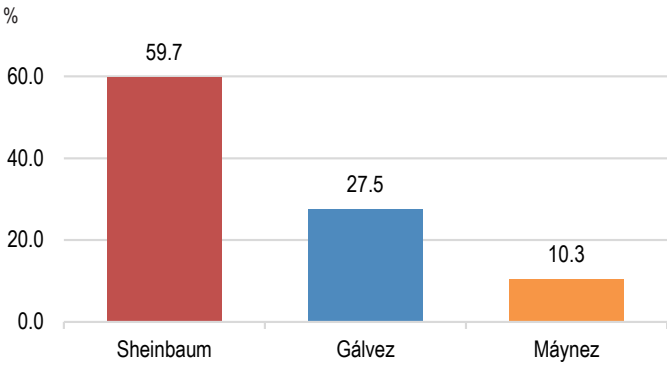
Figure 86: Polling for the Presidential election



Source: Oraculus.

If we have to sum up the big win for Morena on June 2, in which Sheinbaum won an even larger share of votes than Lopez did in 2018 (59.7% vs 53.2%), we have to say that as much as it was a strong confirmation of the population's approval of Morena's socioeconomic policies, it was also a confirmation of the disenchantment with an opposition front that could not find the right balance of proposals or an alternative agenda that could challenge a government that has been quite successful in its spending programs for the lower-income classes. The disappointing performance of the opposition bloc was also evidenced in the relatively strong performance of third-party Movimiento Ciudadano, which scooped up 10.3% of the votes.

Figure 87: Presidential elections results

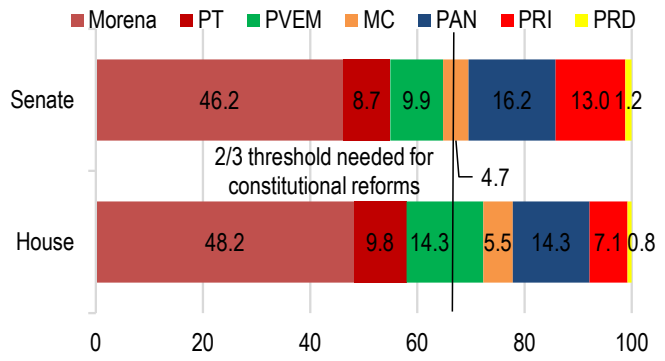


Source: J.P. Morgan with data from INE.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 88: Legislative elections preliminary polls

%



Source: J.P. Morgan with data from INE. Preliminary results obtained from the INE's Fast Counting Mechanism. Results represent interval midpoint.

Table 2: State Gubernatorial Election Results

State	Current party in power	% Share of electorate	Winner (%pts ahead)
Chiapas	Morena	4.0	Morena and allies (69.1)
Guanajuato	PAN	4.8	FAM (10.2)
Jalisco	MC	6.7	MC (5.9)
Morelos	PES (Morena ally)	1.6	Morena and allies (16)
Mexico City	Morena	8.1	Morena and allies (10.2)
Puebla	Morena	5.0	Morena and allies (27.7)
Tabasco	Morena	1.8	Morena and allies (74.8)
Veracruz	Morena	6.2	Morena and allies (28.2)
Yucatan	PAN	1.8	Morena and allies (4)

Source: J.P. Morgan with preliminary data from INE

Main challenges for the incoming president

With a new president now elected and a fresh legislative composition (with a qualified majority for Morena in the Lower House and probably also in the Senate) plus a re-configuration of the state governorships, there will be important questions regarding the transition team and the priorities for the new government. Importantly, the way in which parties negotiate in congress will be quite relevant to gauge the risk of constitutional changes.

The importance of a qualified majority gained relevance early in February following AMLO's announcement of an ambitious 20-point reform agenda that was also interpreted as an agenda for the next six years of Morena – in case they won the presidency. The plan sought mainly to **constitutionally** safeguard the President's social programs; to eliminate key autonomous institutions (some of them protected by the USMCA framework, like the Federal Competition Commission); reaffirm the predominant role of the state in the electricity sector; and implement further changes to the pension system, notably for National Health System workers. Beyond these, the priorities of the new president will be defined soon, but two important policy challenges in the short term will overshadow the above-mentioned institutional proposals.

Annex: An agenda for the transition year

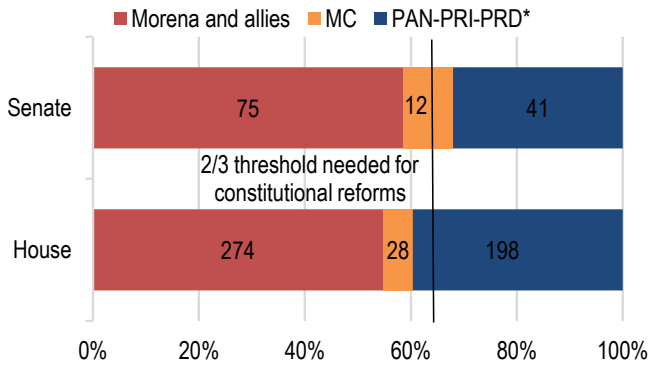
On February 5 – four months before federal elections – President Lopez (known as AMLO) announced an ambitious agenda that would be sent to Congress for its discussion and potential (fast-track) approval by April 30.

In a nutshell, the 20-point plan is consisted of socioeconomic policy proposals aimed at insulating the framework that incumbent Morena and AMLO have implemented (or attempted to) since 2018. The plan, as we see it, is intended to shape the institutional contours for the coming years to consolidate the long-term plans of the current administration.

While we believe there is little space to discuss and approve most of the items on the agenda given time constraints in Congress and the lack of a constitutional majority (see chart below), the sheer discussion of the bills has already raised concerns about the long-term implications for public finances, investment certainty, and USMCA challenges.

Figure 89: Current composition of legislature

%



Source: J.P. Morgan with data from Senate and House of Deputies* Includes independents.

We have three main concerns. First, the risk of further undermining public finances given an increasing reliance on non-recurrent revenues and discretionary spending at the cost of a narrow tax base and declining investment will not easily embrace spending programs that would be airtight if approved at a constitutional level. A new pension plan and the programs for the young and the elderly are particularly concerning. Of note, a new wage policy would also warrant constitutional changes to Article 123.

The new pension plan, intended to guarantee a replacement rate of 100% for 65-year-old (and older) workers earning up to US$980 that have a National Health System registration, was already approved, but questions remain regarding its viability. The lack of further details regarding its long-term funding is concerning in terms of the big fiscal challenge to be faced soon.

While the intention of ensuring the minimum wage will have to increase above inflation on an annual basis is not necessarily a negative proposal in the short term, the long-term implications to productivity and informality are worth keeping in mind; a negative shock to inflation could result in unintended inflation pressures for longer that could importantly dent purchasing power.

Second, the intention of weakening (1) the Supreme Court of Justice; (2) the legislative – cutting the number of lawmakers to make it easier for the incumbent to reach a qualified majority; and (3) closing autonomous entities would reduce accountability.

Particularly concerning at an international level are the implications from the USMCA perspective. Removing the Federal Competition Commission (COFECE) would violate Article 21 of said trade agreement, while closing the Telecom Federal Institute (IFT) would infringe Article 18. According to Banxico, global and local investors rank the rule of law as the number one hurdle to consolidate the relocation of investment. The plans to further change the structure of the SCJ, the National Electoral Institute, and Banxico – via salary curbs – should be closely watched as well, but similar to other institutional changes, these would not have immediately visible consequences.

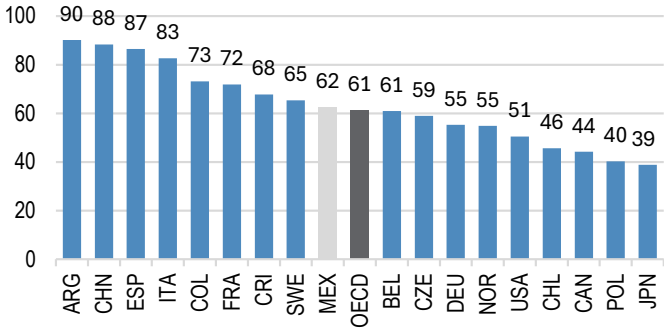
Third, the attempt to ban at the constitutional level GMO corn imports, hydraulic fracturing (fracking), and granting further protection to the State Electricity Company (CFE) given its strategic importance – at the cost of sidelining public private partnerships – will reinforce our view that pending USMCA panels on agriculture and energy will gain traction sooner rather than later. The number of question marks on the legislative discussion on all the topics mentioned above suggests these panels could be delayed well into 2H24 or even next year. But implications ahead of the first agreement revision in 2026 are negative in our view.

All in all, while the bulk of the reforms are not expected to be approved, those that reach a thorough discussion beyond Congress's commissions will probably be approved relatively easily, but the process is not straightforward and we do not eye more than two projects reaching the floor for the discussion. All eyes are on the Judiciary Reform intended to pave the way for the population to elect their own judges, including the Supreme Court of Justice Ministers.

Additional details are still unknown, but overall we regard the 20-point plan as short-sighted from an economic point of view. Given the ongoing fiscal deterioration (we expect the worst primary balance in more than 20 years for 2024), negative implications from a credit rating perspective could emerge sooner rather than later.

Figure 90: Net replacement rate* in selected OECD countries

%



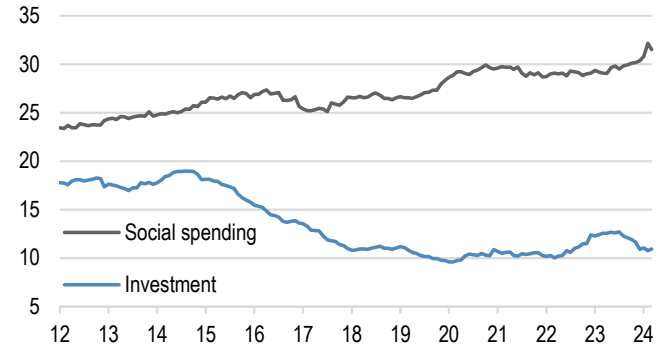
Source: OECD. *Defined as net pension entitlements over net pre-retirement earnings.

Domestic challenge: the salient government was not austere. During the electoral race, candidates showed a populist bias intended to tilt the balance in their favor considering the successful spending strategy from Morena between 2018 and 2024 (particularly in terms of social programs) even if it came at an important fiscal cost. Notably, Sheinbaum delivered mixed messages in terms of her endorsement of the AMLO agenda, but in the end she opted to remain close to the populist message of the last six years. She also continuously emphasized there was no urgency to implement a full-fledged fiscal reform as she aims at maximizing tax efficiencies and the "digitalization" of revenues to avoid increasing taxes. While broadening the tax base through the latter plan is compelling, the reach and depth of such a strategy, which so far has only been successful in Mexico City, the capital, remains to be seen.

But the incoming government will need to play a balancing act. Social assistance now represents one-third of total public sector spending, up from 25% at the end of the Peña Nieto (EPN) administration in 2018. While in isolation this policy is not necessarily wrong, the fact that capital spending continues to decline to avoid an outright deterioration in headline fiscal metrics in the short term is quite concerning.

Figure 91: Public sector spending

% of total spending

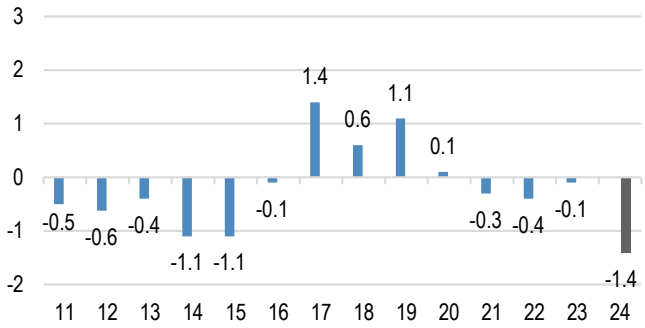


Source: J.P. Morgan with data from the Ministry of Finance.

The 2024 budget announced in September 2023 confirmed our fears of a government not committed to fiscal austerity but instead with an allocation of resources aimed at maximizing electoral spending ahead of the June 2024 election. With most spending categories earmarked well in advance (social programs, pensions, debt servicing, allocations to state productive entities in the energy sector) there was little space to constrain the budget, resulting in a marked adjustment in key fiscal metrics for 2024, with the primary balance aimed at its worse level in more than 20 years (-1.2% of GDP).

Figure 92: Primary fiscal balance

% of GDP



Source: Ministry of Finance with the 2025 Macroeconomic Preliminary Framework.

The new government (starting in October 1, 2024) will have to face an even more challenging policy outlook given the announcement made by the Ministry of Finance in late March to its 2024 -25 fiscal metrics. While the primary balance was marginally revised (two-tenths) down to -1.4% of GDP in the Preliminary Macroeconomic framework for 2025 (*Pre-criterios*, in Spanish), the broadest measure of debt was revised from 5.4% to 5.9%, consistent with debt to GDP reaching 50% this year, nearly 4%-pts above the outlook announced in 2021.

True, the government is committed to cut spending drastically next year to ease the fiscal burden, but with a reshuffle expected in the current cabinet, a broad-based adjustment in spending seems unlikely at this point. At any rate, such an adjustment would have important consequences on economic activity, which is already expected to under-deliver next year (1.4%) from around 2% this year.

A near 3%-pt cut in government spending was last implemented in 2017 when the government had to put forth a drastic fiscal adjustment to face external financing pressures after the 2014-15 oil shock. Back then, the economy expanded at a near-potential 1.9%y/y.

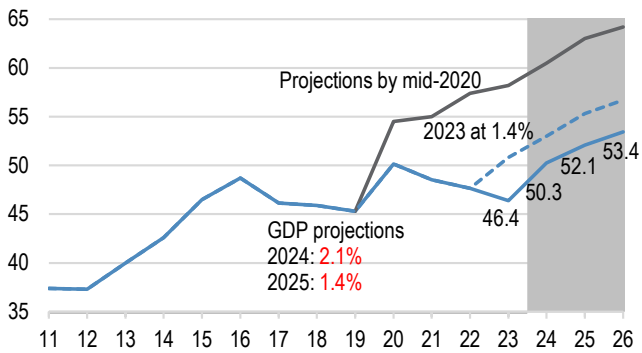
In the *Pre-criterios*, the Ministry of Finance kept its GDP forecasts unchanged at 3% and 2.5% for 2024 and 2025, respectively. In our view, these preliminary targets are consistent with only modest spending adjustments. If the incoming government commits to a full-fledged fiscal adjustment, the official growth estimate will have to be revised lower than its current 2.5%, probably toward 1.7%. Our view is midway, consistent with the tough balancing act between fiscal adjustments and growth resiliency.

We eye debt-to-GDP at 50.4% this year, but reaching 52% in 2025 and 53.5% in 2026 given the little space available to cut spending and our view of no full-fledged fiscal reform in the next administration considering the commitment to keep the current social programs.

The new government will have to reconcile short-term objectives with the long-term consequences of little to no action on the fiscal front. A fiscal reform is warranted by 2026 at the latest, in our view, to avoid a discussion on credit rating downgrades in the medium term.

Figure 93: Debt-to-GDP path

% of GDP



Source: J.P. Morgan forecasts with data from Min Fin. *Historical Public Sector Borrowing Requirements.

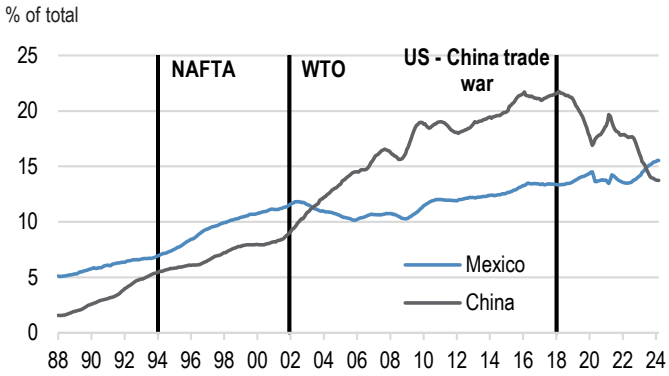
External challenge: NoFTA risk back to the fore? The 20-point agenda, if pursued in the next Congress by the new administration, could threaten an already worn US-Mexico relationship, which has suffered due to the immigration crisis at the borders (both south and north of Mexico); little progress on the war against organized crime; and a gradually higher involvement of Chinese investment in Mexico, particularly in the EV sector.

With US elections gradually approaching, the narrative on these topics will move to center stage soon, and with USMCA review approaching (scheduled for July 2026) it is expected that panels and disputes, notably on GMO corn import limitations from the US and government crowding out of the private sector in energy from both US and Canada, will became increasingly important with potential market implications – particularly on the exchange rate.

Uncertainty on the future of USMCA could deter new investments similarly to the scare back in 2016-17 when President Trump threatened to exit NAFTA. While FDI has delivered positive news recently, new investment remains modest, even considering the huge boost from the US government to relocate projects away from China and on the manufacturing belt of Southern US/Northern Mexico.

At any rate, USMCA review represents an unbeatable opportunity for all three governments to better position in the ongoing investment relocation. Mexico needs to broaden its export capabilities – currently constrained to autos, appliances, and select electronics – in order to consolidate as the top exporter to the US. We expert the reassessment of the treaty to further limit Chinese capabilities to export vehicles to the US via Mexico. Already, rules of origin are tough enough, and Chinese motor companies will need to develop a wide net of suppliers locally in order to be considered regional. They will need to reach 75% of regional content, up from 62.5% under NAFTA. Similarly, steel and aluminum content from the region needs to be at least 70%.

Figure 94: Mexico and China share of US imports



Source: J.P. Morgan with data from US Census Bureau.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

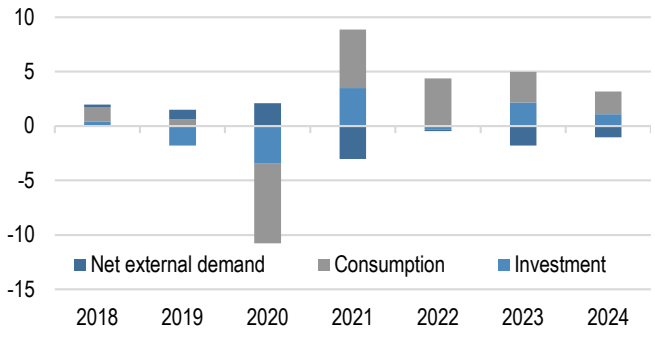
Domestic Sector: Consumption

Seen from a demand-side perspective, consumption, particularly private consumption, has been the chief driver of growth given its large weight in the economy. Consumption was by far the chief driver of growth over the past economic expansion, accounting for about two-thirds of GDP growth over the 10 years through 2019, growing roughly 2% on average in that period.

Private consumption generally benefitted from a combination of modest wage growth and solid job creation. However, as we moved into the current administration, consumption lost traction, despite large real wage gains, at least in the formal sector. High consumer confidence and supportive remittances inflows also added to a robust fundamental backdrop in earlier years.

Figure 95: Growth in Mexico – Demand side contribution

%-pt contribution (%oya)



Source: J.P. Morgan with data from INEGI.

Consumption fell markedly in 2020 due to the pandemic (8.5%y/y), but its decline paled when compared to the near-18% drop in investment. Ever since, both categories boomed on the back of pent-up demand generated during the pandemic years (investment revival was attributed to the so-called "shoring," but we argue that it was mostly on the back of pent-up investment).

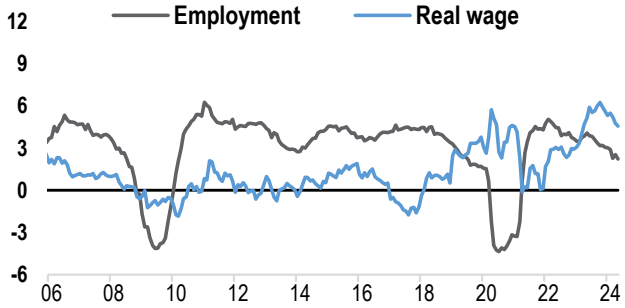
Growth contribution from consumption averaged 4.1%-pts but is expected to moderate notably in 2024 and 2025 as government spending wanes and the post-pandemic frenzy stabilizes.

Private consumption is evenly split across goods and services, with each representing roughly 50% of total private consumption. However, as the country emerged from the pandemic-induced hit to activity, a marked shift in demand took place, with goods consumption recovering rapidly while services consumption lagged well behind. Goods consumption recovered faster than services in the first two years after the start of the pandemic, an important explanation behind the alteration in the prices of goods versus services. That said, services consumption caught up fast as the economy reopened.

The positive run for consumption over the past few years, in particular, was largely driven by rising real wage income, though the composition of wage income became increasingly dependent on rapid wage growth at first and, since 2022, passed the baton to job creation, which has remained strong on the back of labor reforms intended to favor long-term hires rather than *temping*. Still, real wage income continued to increase, peaking in 2023 at above 9%oya, even with formal employment starting to show signs of moderation earlier on.

Figure 96: Formal employment and real wages

%oya



Source: J.P. Morgan with data from IMSS and INEGI.

Low labor productivity remains an important headwind for sustainable consumption growth in Mexico. External demand has far outpaced the expansion of domestic demand since the adoption of NAFTA (now USMCA). External demand and its spillovers into the domestic market have recurrently played an important role in the economy, specifically through the manufacturing sector. But the long-term determinants of a stronger domestic market, chiefly higher productivity and sustainable wage growth, have remained absent.

Remittances remain an important source of consumption, particularly for low-income families, and have been an important buffer for households during the pandemic. Remittances remained rather flat in the half decade through 2013, but alongside improvement in the US labor market they have increased persistently, reaching new historical highs this year at above US$63bn.

We had expected remittances to struggle to grow in 2020 on the back of the sharp decline in US employment, but they have surprised significantly to the upside, at around 4% of GDP.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Investment

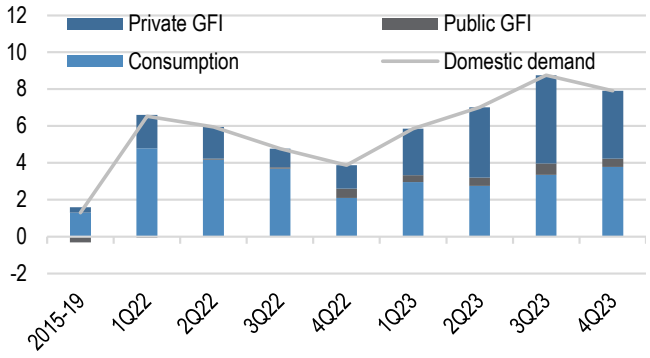
Mexico's gross fixed investment accounted for about 22% of GDP in the years leading to the pandemic but downshifted to nearly 18% in 2020 following a steep 18.2%y/y drop, placing it well below the world average of 23% (as of 2019). In fact, growth-contribution of investment in the five years before the pandemic was -0.6%-pts, which can be explained by business uncertainty related, first, to the risk of no-NAFTA in 2016-18 and then the erratic policies from the AMLO administration, which dragged Mexico into a recession in 2019.

Post-pandemic pent-up investment resulted in an important surge also supported by global investment relocation, but as suggested by poor new foreign investment in recent years and crowing out of domestic investment given the government's full interest in infrastructure priority projects, the boom seems to be mostly cyclical and driven by a resilient US economy.

Gross domestic investment contributed 5.5%-pts in 2023 and by the end of last year reached 25.9% of GDP, matching the maximum levels observed in 2014, at the end of the previous surge in investment relocation.

Figure 97: Domestic demand

%-pt contribution (%oya)



Source: J.P. Morgan with data from INEGI

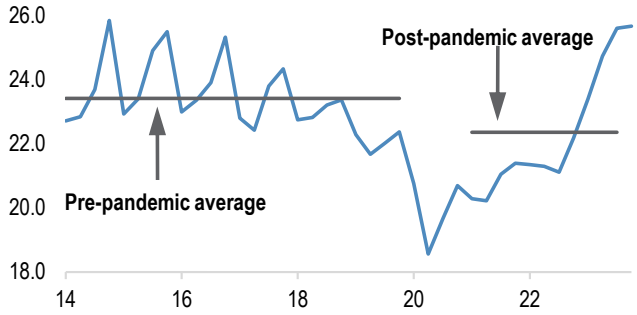
Within Latin America, Mexico's investment ratio still sits at relatively high levels, with Brazil and Argentina lagging behind. That said, following a generally steady rise in the half decade through 2016, gross fixed investment lost momentum and become a strong headwind for GDP growth.

As we noted, the stall in investment was consistent with the persistent loss of confidence among businesses, which have been buffeted by several shocks: the drop in oil prices, rising trade tension with the US, and growing domestic policy uncertainty, with some policies already having challenged the role of the private sector in fostering growth in the country.

Some of these drags on investment have lessened in the past few years, namely, trade tensions with the US. However, others, specifically those related to shifts in economic policy toward less business-friendly policies, have deepened significantly. Adding insult to injury, the pandemic led to a sharp downturn in investment, and the government failed to enact any material fiscal policy to support ailing businesses.

Figure 98: Gross Fixed Investment

% share of GDP



Source: J.P. Morgan with data from INEGI.

The continuation of a government focus on short-term discretionary spending, ignoring the importance of balancing the sources of growth, is expected to dent the recent recovery in investment. In a low-productivity environment, with poor rule of law – according to the most recent survey on investment relocation from Banxico – and lack of incentives to energy private investment, we expect investment to gradually decline, precluding the interest of global firms looking for global relocation away from Asia.

As we explain in its own section, the forthcoming USMCA review could add further pressure on the Mexican government, and while this could stall non-NAFTA investment, this also represents an unbeatable opportunity for the country in terms of further improving high-value added trade that involves nanotechnology, artificial intelligence, and semiconductors, among others.

For now, gross domestic investment is moderating and is expected to contribute 1.2%-pts to GDP this year and next, below consumption (1.6%).

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

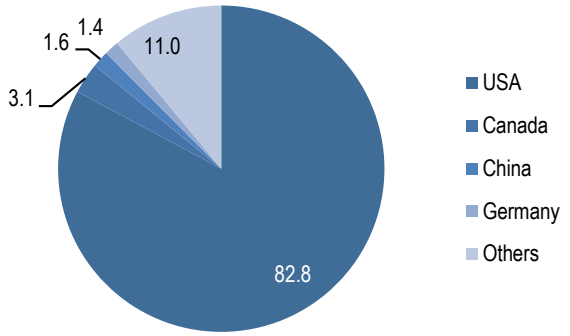
External Sector

Mexico's external accounts have remained relatively solid since the aftermath of the 1994 so-called Tequila Crisis. After Mexico's current account deficit remained between 1.5% and 2% of GDP in the pre-pandemic years, it has now strengthened significantly on the back of a strong non-oil trade balance (notably auto exports), growing remittances, and stronger traveler inflows among other categories. Since 2021, the CAD has averaged 0.6% of GDP

The non-oil trade balance has structurally improved as the manufacturing sector has gained relevance and its value-added has increased notably, with supply chains increasingly integrated. The rapid increase in Mexico's non-oil trade surplus led to a sharp compression in the country's current account deficit in the last few years, even considering the consistently negative oil trade balance. The large CA surplus observed in the pandemic – a natural by-product of an economic crisis in a mid-sized open economy with a free-float currency – helped offset sharp outflows in the financial account, which stood negative in the pandemic for the first time since 2006.

Figure 99: Main export destinations

%share of total, 12m sum



Source: J.P. Morgan with data from Banco de México. Data for April.

Trade balance aside, other current account components have been relatively stable, with services and income account deficits partly offset by persistently growing remittances inflows and, now, travelers. Mexico has historically had a deficit in its services account; despite significant tourism-related inflows, transportation and insurance have proven constant drags. Meanwhile, the income account remains largely negative, with the deficit becoming larger on a growing interest bill, mostly. We expect this category to continue exerting pressure to the CAD in 2024 and 2025. As said, remittances have proved an important offset and will likely continue to do so.

The most important driver of a normalization in the current account toward a smaller surplus (and possibly back to negative) is the normalization of trade flows, which post-pandemic have had a very uneven recovery globally. As we noted, part of the increase in the country's non-oil trade surplus follows structural factors, such as the increased relevance of auto exports. However, a large part of the increase also reflects import compression on the back of the sharp decline in domestic demand in the aftermath of the pandemic.

Other hurdles to sustaining a current account surplus over time also remain in place. First, remittances are unlikely to grow as rapidly as in the past few years, while interest payments are expected to maintain a sustained upward trend. At the same time, were consumption to remain driven by real wage growth that is not matched by productivity, imports are bound to swell. This latter factor has proven to be an important driver of consumer-good imports, with a surge in capital imports also supporting a gradually higher deficit. But still, we only eye a near pre-pandemic CAD in 2025 when we expect the current account at -1.3% of GDP.

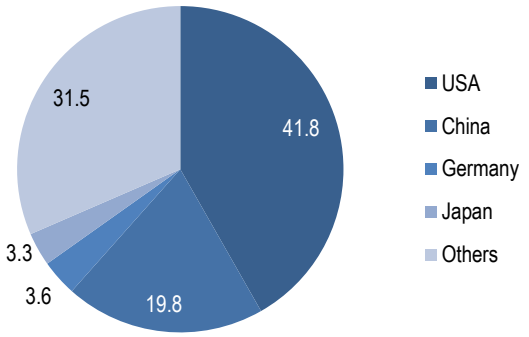
The norm over the past 15 years has been for a moderate external deficit to be more than covered by steady financial inflows; net FDI has usually covered external financing needs. The current account deficit of just below 2% of GDP has been generally financed by net FDI, which averaged about 1.8% of GDP over the past decade and is stabilizing around 2% in spite of strong investment in manufacturing, particularly for the auto sector.

The manufacturing sector has long been the sector attracting the bulk of FDI, accounting for about half of total inward FDI – as we said, within manufacturing the transportation industry has been one of the main beneficiaries, given the rapid development of this sector in Mexico over the past decade, with a first wave of investment relocation in 2012-2014 after the Fukushima disaster in Japan, and now in the aftermath of the US-China trade war and the growing interest from Chinese companies to invest in boosting electric vehicle plants.

The composition could change in coming years on the back of increased investment in EVs, semiconductors, and nano tech, but this process is likely to take time considering uncertainty related to the USMCA review for 2026 and the US election in November 5. Also, the lack of support for public-private associations during the AMLO administration, a weak rule of law, and erratic energy policies are expected to take a toll on relocation investment and evidently on FDI. Geographically, the US remains the key source of inward FDI, with around 40% of the total, followed by Spain with around 15%. This reflects again the strong ties between Mexico and the US.

Figure 100: Main import destinations

%share of total, 12m sum



Source: J.P. Morgan with data from Banco de México. Data for April.

In addition to FDI, portfolio flows became an important source of external financing in the past decade. Portfolio flows after the GFC have averaged 2.2% of GDP, reaching as high as 4.8% of GDP in 2014. The increase in portfolio flows was a function of two developments, mainly Mexico's inclusion in important international local bond benchmarks and the expectations raised by the numerous reforms approved in 2012-13, which led to the belief that productivity and, thus, the country's longer-term outlook were on a positive trend. As a result foreign ownership of fixed-rate local government bonds reached a rate of nearly 63% of the outstanding a few years ago.

That said, portfolio flows have moderated quite markedly from such highs and, in fact, turned negative before the pandemic, given the number of counter-reforms heralded by the AMLO administration. A big question mark is arising considering the political ambitions from the incoming Sheinbaum administration, which has suggested continuation of populist policies enacted since 2018 but also more incentives to market-friendly policies in the context of investment relocation.

As we said, supportive portfolio flows have fallen over the past years and actually turned negative ahead of the pandemic. Foreign ownership of local government debt has declined markedly. On top of that, residents have increased both their purchases of foreign assets as well as deposits abroad, putting further pressure on financial flows. Against this backdrop, foreign direct investment has remained stronger than expected, stabilizing around US$30bn.

Important changes are expected in the next years, and the USMCA review will dictate the new contours of trade in the region. But for Mexico there will be downside risks given the recent surge in Chinese investment as the agreement's review is expected to sideline and disincentive inflows. Also, domestic factors related to poor infrastructure, little investment in energy, and cross-border bottlenecks could result in a number of long-term projects from abroad being directed to other countries with better conditions for investment and trade.

Table 3: Balance of payments and components

	2023	2022	2021
Current account	-5,426	-17,599	-4,493
Financial account	-7,418	-14,715	-3,376
Direct investment	-29,437	-21,785	-35,612
In Mexico (FDI)	30,196	39,108	35,406
From mexicans abroad	759	17,323	-207
Portfolio investments	11,299	5,112	41,579
Liabilities	-6,395	-5,387	-18,922
Equity	-5,163	-4,661	-3,163
Debt	-1,233	-726	-15,759
Assets	4,903	-275	22,657
Equity	-1,982	649	14,639
Debt	6,885	-923	8,017
Other investments	-2,469	725	-21,744
Liabilities	-5,568	4,218	12,254
Assets	-8,038	4,943	-9,490
Errors and omissions	1,165	2,960	-1,980

Source: Banco de México

Annex: The Future of NAFTA and USMCA rebirth

Since NAFTA was enacted back in 1994, Mexico has significantly expanded its free trade agreements with the rest of the world, including the EU in 2000 and Japan in 2005. Mexico has FTAs with over 46 countries as well as other forms of trade agreements with a handful of countries. Before renegotiations of NAFTA started its modernization process in 2017, Mexico's most recent commercial agreement had been signed with Peru in 2012. Soon after, Mexico formally joined the Pacific Alliance, an ambitious integration agreement aimed at boosting free trade of goods, services, capital, and labor mobility among member countries (Chile, Colombia, Peru, and Mexico). The Pacific Alliance provides a platform for other broader agreements, such as the TPP, or the eventual incorporation of other "observing countries."

Table 4: Mexico's signed free trade agreements

	Agreement	Partners	Official Start Date:
1	NAFTA	US and Canada	1-Jan-94
2	TLC - G3	Colombia*	1-Jan-95
3	TLC - Mexico-Costa Rica	Costa Rica	1-Jan-95
4	TLC - Mexico-Bolivia	Bolivia	1-Jan-95
5	TLC - Mexico-Nicaragua	Nicaragua	1-Jul-98
6	TLC - Mexico-Chile	Chile	1-Aug-99
7	EUFTA	European Union	1-Jul-00
8	FTA - Mexico - Israel	Israel	1-Jul-00
9	TLC - Triángulo del Norte	El Salvador, Guatemala, Honduras	15-Mar-01
10	FTA - European Free Trade Association	Iceland, Norway, Liechtenstein, and Switzerland	1-Jul-01
11	TLC - Mexico-Uruguay	Uruguay	15-Jul-04
12	FTA - Mexico-Japan	Japan	1-Apr-05
13	TA - Mexico-Peru	Peru	30-Jan-12
14	Pacific Alliance	Chile, Colombia, Peru	20-Jul-15
15	Trans Pacific Partnership	Pacific Rim (11)	N.A.**

Source: Economy Ministry. * Venezuela was part of the agreement from January 2005 to November 2006. **US dropped out in 2017; it requires the approval of at least six members.

The confrontational approach of the US administration since 2016 triggered the start of an update to NAFTA in August 2017 (NAFTA 2.0). The US was very clear since the beginning of the Trump administration about its intentions to reduce its trade deficit, and it believes a lot can be done through changes in trade agreements and the imposition of tariffs. Currently the US and China are involved in a trade war.

NAFTA 2.0 discussions kicked off in 2017, and progress has been remarkable on many fronts, even if the fear of NoFTA remained in place for a while. *There were officially seven rounds in the first seven months, and between April and May 2018, the technical teams worked continuously in order to reach an agreement in the following two years. The most complicated discussions were on* ***rules of origin and national content, dispute resolution and ISDS, as well as a sunset clause. By the end of August 2018, Mexico and the US reached an agreement, and one month later Canada joined.*** *On November 30 the leaders of the three countries signed the agreement, and the name of the accord* ***changed from NAFTA to USMCA*** *(T-MEC in Spanish).*

Still, USMCA needed legislative approval in Canada and the US. The Mexican Congress approved it June 18-21 of 2020 with support from both opposition parties and the ruling party, Morena. Our base case scenario was that USMCA would be voted in the US Congress before the end of the year, and in the end it was signed in July.

Main features of the July agreement

On autos, the US agreed to boost the regional content requirement to classify as zero-tariff exports to 75% *from 62.5% while also demanding steel and aluminum consumption from within the region. Furthermore, a third clause was introduced that demands 40-45% of an auto export value added is produced by workers earning at least US$16 per hour. According to Mexico's former Minister of the Economy, Ildefonso Guajardo, about 70% of Mexican auto companies could comply with these rules. Additionally, existing firms with a set production capacity that do not meet the requirements would still have favorable treatment, facing the WTO MFN standard tariff.*

A Side Letter (232) was included to the new USMCA that would apply if the US decides to impose a tariff on auto imports. *Mexico and Canada could be exempted and subject to a 2.6 million vehicles quota.*

On the so-called sunset clause, *the original US demand was for the trade agreement to be revised every five years with the option to terminate the agreement in the event the parties fail to reach common ground. The current proposal is for a six-year periodic revision, which cannot lead to termination in the event of disagreement. The total lifespan of the agreement was fixed at a minimum of 16 years, which is likely to create much needed certainty for long-term investors looking to leverage the linkages between the US and Mexican economies.*

Trade remedies (safeguards and antidumping) are now in Chapter 10, and foreign investment protection measures – and investment arbitrage between the State and Investors – are included in Chapter 14. An update on dispute settlement mechanisms is part of Chapter 31.

Table 5: NAFTA-USMCA Time Line

Date	NAFTA key events
31-Aug-18	Agreement in principle 90-day notification to US Congress of intent to sign
1-Sep-18	Mexican Congress inauguration
30-Sep-18	60-day notification of final agreement text
1-Oct-18	USTR publishes consulting report
6-Nov-18	US midterm elections
29-Nov-18	**Agreement is signed**
30-Nov-18	Last day for President Peña Nieto to sign bill
1-Dec-18	AMLO's inauguration
3-Dec-18	Within 60 days post-signing, required legislative changes due
3-Dec-18	30 days prior to implementation, final legislation fue
3-Jan-19	116th Congress convenes in the US
Mar-Apr 19	Mexican Congress approves the pending changes to Labor Legislation, a requirement to resume USMCA
31-May-19	US threatens to impose unilateral tariffs to Mexico accusing it of lack of efforts to fight illegal immigration
7-Jun-19	President Trump cancels his "immigration tariff" threat after market plummet and Mexico promises to tackle illegal immigration
21-Jun-19	**USMCA approved by Mexico Congress**
Jan-20	**US president signs implementing bill**
Apr-20	**Canada approves implementing bill**
1-Jul-20	**USMCA comes into force**

Source: J.P. Morgan, USTR, USTIC.

Annex: The immigration tariff proposal of May 2019 (note published in 2019)

President Trump's announcement of a new wave of tariffs for all Mexican good exports in response to the perceived lack of progress in tackling illegal immigration was a surprising and unorthodox decision from the US administration. It opened another front in the global trade war that, until recently, was expected to be limited to China-US, particularly given recent progress in removing tit-for-tat tariffs in North America. ***While in the end the threat did not materialize, we believe future threats are not low-probability scenarios.***

Mexico was caught off guard and did not retaliate, which suggested (as was later confirmed) Mexico would follow through with immigration actions rather than trigger a full-fledged trade war that would unleash a major economic crisis in the region. Mexican exports represent 35% of GDP, and 80% of Mexican exports go to the US – with 90% of the exports comprised of manufacturing goods. While the US is less exposed to tariff actions from Mexico, the damage would not be negligible either, considering the multiple transmission channels through which a trade war spreads into an economy, as well as knock-on effects from a risk-off episode and the front-loaded decisions of economic agents to prepare for rising recession risks.

And what about the potential impact to the Mexican economy? *If immigration tariffs had been approved, all Mexican good exports would have been taxed by 5% in June, gradually rising to 25% by October. We can think about some scenarios for the impact of some key levels on the main macroeconomic variables this year and next. An adjustment of the real exchange rate would have been expected to cushion part of the overall impact on economic activity, and we have to make an assumption in terms of how much of the tariff adjustment is passed on to consumers and how much is absorbed by producers. We assumed a 50-50 split considering the strong interdependence of supply chains and the fierce competition in the manufacturing sector that obliges producers to absorb part of the price hit.*

There are multiple channels through which an eventual imputation of unilateral US tariffs on Mexican exports would hit the economy, and needless to say, the impact would be strong. From a demand side perspective, exports themselves should carry the initial brunt of the adjustment, even assuming that part of the price effect is absorbed by US consumers and that a meaningful REER depreciation would follow the imposition of tariffs. But Mexican domestic demand would eventually follow the initial external hit: gross fixed investment would drop – already weak as it is – and the natural next step is for job creation to slip as well, hurting consumer spending, which would also suffer through the expectations channel. A very similar logic applies whether there's a 5% or 25% tariff, even if some non-linearities may ensue that magnify the impact in the latter case.

External accounts would also suffer. Mexico is equipped with an automatic stabilizer: if manufacturing exports drop, so do intermediate imports, plus slower domestic demand should eventually weigh on imports across the board. That said, the current account deficit would widen at the margin under 5% flat export tariffs and would rise more meaningfully under a 25% levy notwithstanding a REER adjustment. FDI would also deteriorate to a varying degree. Under some scenarios the strain on external accounts would be significant (possibly prompting a monetary policy response).

Finally, inflation would shoot higher under tariffs in the 12 months following their imposition, although the effect would fade and in an extreme case turn negative (lower inflation) as we move deeper into 2020 considering that a negative growth pass-through dominates, fading FX second-round effects.

5-10% tariff; stagflation scenario. *We believe the reaction from Banxico to a 5% tariff could be a one-off 50bp rate hike that would allow an orderly depreciation of the peso, signaling its commitment to financial stability and addressing the impact on inflation. Once the currency stabilizes, we would expect a properly communicated shift to an accommodative stance. The magnitude of the adjustment is another story, but we would expect around 200bps of cuts, particularly if the Fed is already expected to ease this year. Rate differential between Mexico and the US has been an important anchor for Banxico, and we expect them to watch it carefully. Keep in mind that this is the "stagflation" scenario and not an outright recession. Inflation risks are reasonably tame considering growth stagnation and a credible stance from the central bank.*

On the fiscal policy side, there is not much room to continue cutting spending, but some efforts will be necessary to signal the commitment with fiscal discipline even if this keeps growth on a tight leash. This is why we believe most of the adjustment will be done through a REER depreciation, a mechanism that has worked well as an automatic stabilizer in the past, when the risk of a balance of payments crisis is meaningful. Keep in mind that FDI would be hit partially under any scenario. These policy actions would be expected to prevail also under a 10% tariff.

25% tariff; stronger shock and more adjustment: *If markets were to start pricing in a 25% tariff adjustment, the policy landscape would change dramatically. Not only would we be dealing with a sharp recession but also a stronger adjustment in the currency. We would not expect rate hikes beyond the initial action taken when the tariff was increased 5%, but we believe Banxico could ease very gradually to monitor balance of payment risks. Yet the terminal rate would be substantially lower: Banxico would have to aim at a policy rate well below the new natural policy rate (which stands around 6.0%), in our view.*

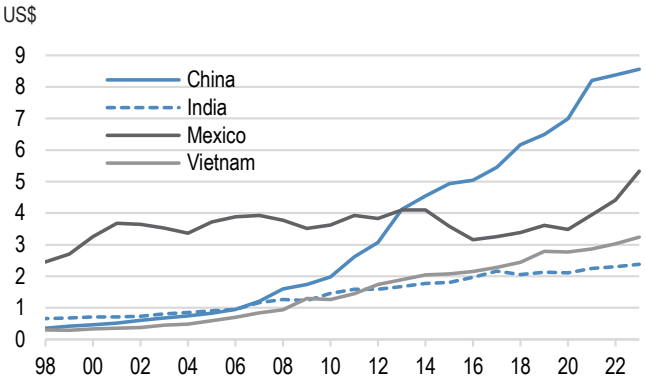
Needless to say, the scenarios described above would be consistent with lower potential growth, a situation exacerbated by the already challenging environment in which domestic shocks related to the new administration are already exerting pressure on the economy.

Annex: "Shoring" – Far away, so close (note published in June 2023)

Near-shoring could be defined in several ways, depending on the context or the market to which we are referring. But it is generally described as the relocation of businesses to a foreign, lower-cost country that is geographically close (usually sharing a border) to the headquarters country with the intention of optimizing its economic and financial results. Notwithstanding this definition, recent geopolitical concerns, from the trade war between China and the US to the war in Eastern Europe, are prioritizing relocation of investment to perceived safe havens that can be identified as investment-friendly countries, without emphasizing cost-optimization.

We believe, unsurprisingly, that Mexico could be one of the winners from a reshuffling of investment outside China and other non-investment-friendly states, That is mainly thanks to the existence of a trading agreement – signed originally as NAFTA in 1993-94 and since 2020 relabeled as USMCA. How much of the relocation pie will Mexico grab? Is the wage differential with China enough for Mexico to trigger a structural change in manufacturing investment and production?

Figure 101: Wage differential



Source: J.P. Morgan with data from The Economist and Haver.

In our view, institutional hurdles and erratic domestic policies will limit the reach and depth of relocation and will probably result in a lost opportunity to migrate from an auto-driven economy to an economy in which strategic investment and state-of-the-art manufacturing pave the way to a positive feedback loop between investment, growth, and productivity. It seems too early to claim victory on investment relocation given significant uncertainties domestically and abroad, and in the context of a short-term material recession risk in the US that could alter the current recovery.

Where we came from: Far-shoring

The globalization of the world economy, and more specifically China's entry to the World Trade Organization (WTO) at the beginning of this century, resulted in a global re-configuration of world trade. That caught several economies off-guard, like Mexico, which lost a significant share of exports to the US given a marked difference in wage costs that more than outweighed the zero-tariff advantage of the regional trade agreement in North America and the transportation and logistical advantages.

It took Mexico almost 10 years to witness an outright recovery in exports to the US and the start of the trade war between China and the US to partially cash in, increasing Mexico's share of US imports from 12% in 2012 to 14% right before the pandemic started. The global reconfiguration of exports to the biggest economy in the world has been very gradual, with China still on top in 2016.

We had seen in previous episodes that global corporations sought relocation and diversification to face new challenges also related to natural disasters (e.g., Fukushima and the boom of auto sector and aerospace investment into Mexico in 2011-13). But these happened in the context of a long-term plan to overhaul the Mexican economy. This plan, never fully completed, was intended to boost competitiveness and pro-

ductivity to satisfy global and regional needs and would have paved the way for stronger momentum now, when supply chain normalization is taking longer globally. Back in 2012, we estimated annual FDI would reach close to US$45bn in two decades.

Local challenges

In our view, a key long-term policy challenge for Mexico is to prepare a bold strategy to boost both private and public investment in the context of the above-mentioned economic and geopolitical tensions that should benefit "friends" and neighbors of trade behemoths like the US, Western Europe, and Japan. Cost-optimization is not the only consideration for investors and governments supporting the relocation of suppliers. And, in our view, it is not clear that the bulk of recent investment announcements in Mexico , mainly in the auto sector, are outcomes of the early phases of global trade rotation.

What we have witnessed in the last couple of years is the recovery of global trade after two years of constrained global trade and investment during the worst of the pandemic, when even China continued to benefit from its high manufacturing competitiveness in spite of the ongoing trade war with the US.

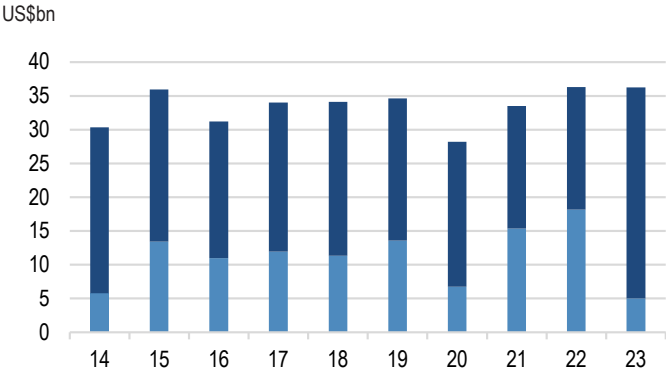
Supply-chain normalization after the sudden change in China's COVID-19 policy should also provide a shot in the arm to manufacturing investment in the next years, but this should not be confused with the eventual shift in global trade dynamics or its composition. That shift will be a slow-moving process considering the number of variables that an investor takes into account when deciding where to relocate and the learning process warranted to adopt new technologies.

The case of Mexico is particularly important for the US given its geographical advantage, low labor costs, and the existence of a 30-year old trade agreement in North America. Indeed, low costs and logistical advantages are the two pillars of near-shoring. But global geopolitical tensions in the last five years are pointing to other important variables in the decision-making processes of firms and governments. Particularly important are diversification, policy certainty, and state-of-the-art technologies that do not necessarily match with the basic (early) motivation of near-shoring strategies.

While we continue to expect Mexico to figure importantly in manufacturing exports given the supply-side integration with Canada and the US, we do not foresee a major diversion away from the usual manufacturing sectors in favor of high-value-added products and services. Encouraging news on lithium production and electric vehicles could be welcome, but not a game changer.

New investment from global companies (most of them already located in Mexico) is expected to average between US$5bn and US$10bn in the next five years, still consistent with annual inward FDI around US$30bn. But recent data on new foreign investment has been discouraging.

Figure 102: Foreign Direct Investment



Source: J.P. Morgan with data from Banxico.

To this point on investment discouraging, USMCA tensions are running high given policies from the Mexican government – hurdles to private investment in renewable energies and electricity, actions to curb GMO corn trade, and looser safety measures on meat imports. Legal actions against Mexico could unsettle investors, particularly those already well advanced in their relocation and diversification plans away from Asia and Eastern Europe.

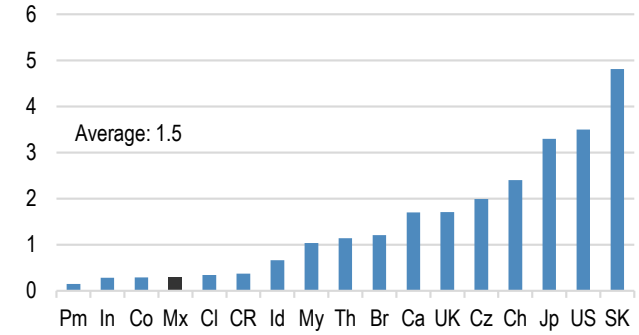
As long as the risk of an escalation to an International Panel on Mexico's energy policies (state – state legal action) remains, investors will likely delay plans to increase or start operations in Mexico. Swift supply and competitive energy costs are paramount, particularly for firms still considering revamping investment in South East Asia in order to remain close to China and key logistical hubs.

Also, as long as the rule of law and property rights remain fragile, Mexico will continue to curb new investment. Several unilateral actions hurt the credibility of the current government, from the cancellation of the international (logistical hub) airport in 2018 to the rolling back of structural reforms aimed at boosting competitiveness and productivity between 2011 and 2013.

Furthermore, little investment in R&D suggests that aiming at exporting new technologies (strategic areas that will be shifted away from investment foes) is not realistic for Mexico or most EMs, particularly Latin American countries. Indeed, institutions matter, and the ongoing plans to centralize power, weaken autonomous entities, and alienate private investment are unlikely to help friend-shoring ambitions.

Figure 103: Research and development spending

% of GDP



Source: IMCO and J.P. Morgan.

Poor investment has been a long-term problem in Mexico but was accentuated in 2016 when the previous administration (2012-2018) had to deal with the collapse in oil prices and its public finance implications. Furthermore, during the current administration, investment crowding out and the lack of public-private partnerships has hurt investment even more. Had a long-term strategy to boost investment been in place, we think Mexico could have been ready to boost near-shoring earlier. Soaring real estate prices in the North of the country is not only explained by overheating manufacturing production but also by supply shortages.

Where we stand now

Mexico is facing two important challenges that could define its role in the ongoing global re-configuration of investment: First, as mentioned, are tensions with its trading partners in the context of USMCA consultations. Second, and more recently, are reforms that could scare domestic and foreign investment alike given rushed proposals to reshape investment in the mining sector and a multi-pronged Administrative Law intended to increase the reach and depth of the public sector in the economy.

On the former, we have not had much news on the ongoing consultations related to USMCA, but we believe a panel on either energy or food security could be confirmed sooner rather than later. But on the latter, things have been quite fluid considering the rush to vote on several initiatives to overhaul the public sector at the end of the ordinary session in April.

The overhaul of public management covers several topics, but particularly concerning is the section in which the Executive Branch is proposing a clause that would grant the government the right to (early) terminate a concession – provided the government finds a "public interest" or economic motivation to do so – establishing "clear limits to compensations."

This is the "Exorbitant Jurisdiction" clause that is included in the long bill delivered in 1Q23 to the Lower Chamber.

In our view, Mexico still has a unique opportunity to boost investment beyond the ongoing post-pandemic thrust given its friend-shoring advantage within North America. But by persistently confronting its regional partners and crowding out domestic investors, it is now at the brink of wasting (or delaying at best) that opportunity. As things stand right now, exports to the US continue to reshuffle, with important gains for Costa Rica and Laos since 2021, and Mexico also trailing behind Thailand and Cambodia.

The ongoing recovery in investment is mostly explained by the relocation of firms to the well-known "NAFTA corridor" that stretches along the US-Mexico border and extends south toward the Bajio manufacturing region in the center of the country given the existing infrastructure there. The lack of a long-term strategy on investment will keep Mexico split without maximizing the full potential of the economy as evidenced by the sharp differences in productivity and competitiveness between the North, the West/East coasts, and the South. Globally, differences in productivity between Mexico and OECD countries remain concerning.

Conclusion: Slow train coming

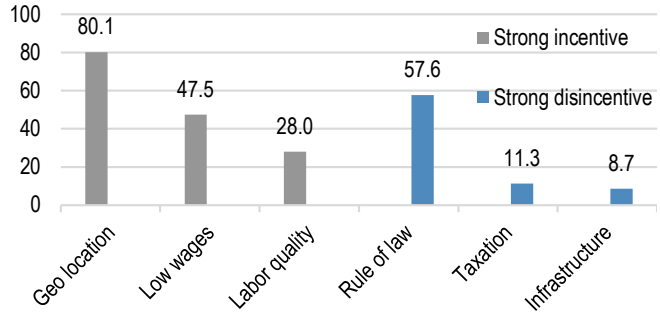
Mexico has managed to level the field in terms of exports to the US compared to China. But this is, in our view, mostly explained by external factors, exogenous shocks, and the evolution of lingering wage differentials between Mexico and China, rather than being a clear-cut demonstration of "near-shoring." Also, the recovery in investment since 2022 was rooted in pandemic-related pent-up demand – with consumption recovering earlier – and years of marked uncertainty, from NAFTA renegotiations to COVID-19.

Still, with FDI expected to stabilize around US$30bn and gross fixed investment seemingly stabilizing at pre-pandemic levels there is indeed some early evidence of a gradual relocation of investment that will continue to favor Mexico and the USMCA region as a whole. The good news is that investment is higher than what we expected a few years ago (both GFI and FDI), but the bad news is that it could have been higher. Back in 2011-12 we expected FDI to reach US$45bn in the medium term and potential output near 4%, as opposed to 1.5-2.0% currently. Domestic factors are delaying a more compelling case for friend-shoring considering institutional hurdles and long-term constraints related to low productivity and competitiveness.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 104: Top factors that curb/relocation

% of businesses surveyed



Source: Banxico.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Monetary Policy

Mexico's Central Bank was founded in 1925 and became an independent institution in 1994. Almost in sync with Banco de México's autonomy, the monetary authority adopted "*el corto"*(used to implement monetary policy through a signal based on monetary targeting to provide or absorb liquidity in the interbank money market) as its monetary instrument.

Later on, in 2001, Banco de México officially implemented its inflation target regime, setting the long-term objective at 3%. Finally, in early 2005, Banco de México adopted the policy rate target (the O/N rate, or *tasa de fondeo*) as its main monetary policy instrument; *el corto* was officially discontinued on January 21, 2008.

Table 6: Banco de México Summary

Objective	Price stability
Strategy	Inflation targeting
Policy instrument	Overnight interest rate
Ticker	MXONBR
Board	Governor and four vice-governors
Meeting frequency	Two per quarter
Inflation target	3% (+/-1%)

Source: J.P. Morgan.

The Central Bank's board is formed by its governor and four Vice-governors or Deputy Governors. The Central Bank governor is appointed for a six-year term by the president and is subject to Senate approval. The term of the Governor expires at the end of the third year of the President's tenure. Deputy governors are elected for eight-year terms and, similarly to the Governor, can be renewed as long as they are under 65 years old by the time of their new tenure.

Table 7: Banxico Historical Highlights

1-Sep-25	Banco de México founded
22-Jun-92	The New Monetary Law (released June 22, 1992) in which the government decided to "eliminate three zeroes from the peso," giving way to the creation of the "New Peso" (1,000 Pesos = 1 "Nuevo" Peso)
1-Apr-94	Banco de México becomes an independent Central Bank
13-Sep-95	Banco de México changed its policy instrument to a monetary target signal, also known as "*el corto,"* in which commercial banks should hold a zero monthly cumulative balance with the Central Bank
1999	"Unofficial" adoption of an inflation target of 3%
2001	Official adoption of an inflation target regime
2002	Official adoption of a long-term inflation target of 3%
28-Jul-02	"Official" adoption of a long-term inflation target of 3% +/- 1%
Jan-03	The Central Bank's board started to meet on a biweekly basis to announce changes in monetary policy (before the board could make announcements every other day). It is worth noting that a statement was released only after the second meeting of the month
10-Apr-03	Banco de México modified its policy instrument, "el corto," to a daily balance from a monthly cumulative balance
26-Aug-05	"Unofficial" adoption of the overnight rate as the monetary policy instrument of choice, instead of "el corto"
Jan-06	The Central Bank's board started to meet on a monthly basis to announce changes in monetary policy
20-Jan-08	"Official" adoption of the overnight rate as the monetary policy instrument of choice
2011	Banco de México reduces the number of monetary policy meetings per year from 11 to 8 (two per quarter).
4-Feb-11	The Central Bank published its first minutes intended to reflect the discussion leading to the monetary policy decision taken two weeks before.
8-Mar-13	Banxico reaches its first public non-unanimous interest rate decision, which led to a 50bp cut in the *Fondeo* rate
6-Jun-14	Banxico brings the policy rate to a historical minimum of 3.0%
17-Feb-16	Intra-meeting 50bp hike as part of a coordinated action with the Ministry of Finance.
Nov-16	Banxico for the first time provides an estimate of the long-term neutral policy rate, placing it between 4.7% and 6.3%, in nominal terms
Mar-17	Banxico's policy statement communicates for the first time whether the decision to change its policy stance was unanimous or not
Jan-18	Mrs. Irene Espinosa was appointed as deputy governor, becoming the first woman to be part of the central bank's board
Feb-18	Banxico introduces its inflation forecast targeting regime formally and provides point estimates for quarterly inflation eight quarters ahead
Apr-18	Policy minutes will make explicit a board member's dissenting vote (if there is one) and the rationale behind it; statements and minutes will be also published in English; and transcripts of the policy meetings will be available three years after the meeting
Dec-18	Banxico hikes its policy rate to 8.25%, which marked the end of its long hiking cycle
Aug-19	The central bank delivers its first policy rate cut since 2014
Mar-20	In response to the onset of the pandemic Banxico went from normalizing policy rates to embark on an aggressive easing cycle that saw rates bottom at 4%, shy of record lows, though (3%)
Nov-21	President Lopez Obrador nominated Deputy Head of Expenditures of the Ministry of Finance, Victoria Rodriguez Ceja to head Banxico. Former Minister of Finance Arturo Herrera was initially expected to head Banxico
Jan-22	Victoria Rodriguez Ceja is appointed Governor of the central bank, becoming the first woman in history to head this institution.
Mar-22	President Lopez Obrador surprised the market by revealing, in a press conference, that Banxico had decided to hike the policy rate, hours before then release of the policy statement.
Jan-23	Omar Mejia Castelazo appointed as new Deputy Governor, replacing Gerardo Esquivel.
Mar-23	Banxico began to hike rates in May 2021 as economy emerged from pandemic, but eventually saw need to hike aggressively, eventually setting the policy rate at a record high since the adoption of this instrument of 11.25% in March of 2023.
Mar-24	After 12 months, Banxico started to ease the monetary policy stance by cutting 25bps to 11%.

Source: Banxico.

The current governor, **Ms Victoria Rodriguez Ceja,** took office in January 2022, replacing Mr. Alejandro Diaz de Leon. Ms. Rodriguez Ceja is the first woman to be elected as central bank governor in Mexico. Her nomination took place November 25, 2021, and was ratified by the Senate on December 2.

Governor Rodriguez had previously worked at the Ministry of Finance, where she was Undersecretary of Expenditures, and her nomination as Governor of Banxico was rushed after President AMLO decided to backtrack from his original decision to appoint Mr. Arturo Herrera – until then the Minister of Finance – a surprise decision that rattled markets temporarily

and left Mr. Herrera in no man's land given the confirmation of Rogelio Ramirez de la O to fill Herrera's post at the Ministry of Finance. Rodriguez' term will expire on December 31, 2027.

Since AMLO became President, four deputy governors have been replaced: Dr. Manuel Ramos Francia, Mr. Roberto del Cueto, Mr. Javier Guzman, and last year Gerardo Esquivel. Ramos Francia and Mr. Guzman were replaced at the end of their terms, while Del Cueto retired ahead of his term. Esquivel had filled Del Cueto's early retirement, but he was not renewed. Jonathan Heath replaced Ramos Francia and won't be eligible for another term given he is already more than 65 years old.

The most recent appointments were Mrs. Galia Borja (January 2021), who replaced Javier Guzman, and Mr. Omar Mejia (January 2023). Omar Mejia served as advisor to Galia Borja in Banxico until his nomination in early January 2023.

Table 8: Heads of Banxico

Name	Period	Mexican President
Alberto Mascareñas	Sep 1925 - May 1932	Plutarco Elias Calles
		Emilio Portes Gil
		Pascual Ortiz Rubio
Agustín Rodríguez	May 1932 - Apr 1935	Pascual Ortiz Rubio
		Abelardo L. Rodríguez
		Lázaro Cárdenas
Gonzalo Robles	Apr 1935 - Dec 1935	Lázaro Cárdenas
Luis Montes de Oca	Dec 1935 - Sep 1940	Lázaro Cárdenas
Eduardo Villaseñor	Sep 1940 - Dec 1946	Manuel Ávila Camacho
Carlos Novoa	Dec 1946 - Nov 1952	Miguel Alemán Valdés
Rodrigo Gómez	Dec 1952 - Aug 1970	Adolfo Ruiz Cortines
		Adolfo López Mateos
Ernesto Fernández Hurtado	Dec 1970 - Dec 1976	Gustavo Díaz Ordaz
		Luis Echeverría Álvarez
Gustavo Romero Kolbeck	Dec 1976 - Mar 1982	José López Portillo
Miguel Mancera Aguayo	Mar 1982 - Sep 1982	José López Portillo
Carlos Tello Macías	Sep 1982 - Dec 1982	José López Portillo
Miguel Mancera Aguayo	Dec 1982 - Dec 1998	Miguel de la Madrid Hurtado
		Carlos Salinas de Gortari
		Ernesto Zedillo Ponce de León
Guillermo Ortiz Martinez	Jan 1998 - Dec 2009	Ernesto Zedillo Ponce de León
		Vicente Fox Quesada
		Felipe Calderón Hinojosa
Agustín Carstens Carstens	Jan 2010 - Nov 2017	Felipe Calderón Hinojosa
		Enrique Peña Nieto
Alejandro Díaz de León	Dec 2018 - Dec 2021	Enrique Peña Nieto
Victoria Rodríguez Ceja	Jan 2022 - ?	Andrés Manuel López Obrador

Source: Banco de México. Note: From 1925 to 1993 the head of Banco de México was named Director General. However, the title of the Central Bank's head has been Governor since 1994, when Banco de México achieved its autonomy.

Transparency and accountability. Since Dr. Carstens' term as governor ended, **Banxico has doubled its efforts to become more transparent,** increasing the channels of communication with market participants, particularly by releasing details of the discussions leading to the monetary policy decisions (i.e., **meeting minutes**). More recently, during the Díaz de León governorship, the central bank has built on these efforts by making explicit the identity of a dissenting voter (if there is one) and the rationale for the dissent.

The Bank announced that it would publish the policy meeting statement and minutes in English while providing a transcript

of the policy meetings three years after they take place. The first transcript was released in 2021. **In August 2021, the Board agreed to publish inflation forecasts for the following eight quarters to improve communication with financial markets.**

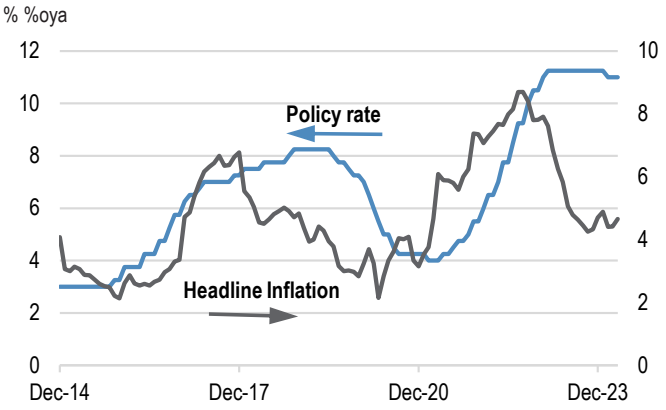
Highlights of recent monetary policy actions

Banxico cut the reference rate to a historical minimum of 3.0% in June 2014. After keeping rates at this level for a year and a half, Banxico began to normalize and eventually tighten its policy stance. **Between December 2015 and December 2018, Banxico hiked its policy rate by 525bp to 8.25%** in response to a worsening inflation outlook, which showed prices rising more than 6.5%oya in 2017, as well as due to heightened exchange rate pressures in response to both external (trade tensions with the US) and internal factors (deterioration of public finances in response to declining oil production and prices).

In August 2019, the central bank cut rates for the first time in five years, lowering its reference rate to 8% from 8.25%. The easing cycle gained strength in 2020 as the world economy contracted 3.5% on the back of the COVID-19 pandemic. Mexico contracted 8.3% as global trade collapsed and the government preferred to avoid a full-fledged fiscal crisis at the cost of one of the biggest health crises in the world.

Banxico ended the easing cycle on February 2021 at 4% as inflation started to shows signs of stubbornness and financial stability concerns emerged in the context of investment fragility and tapering signs. By June, in a very controversial 3-2 decision, the Bank opted to start its hiking cycle as inflation proved to be more stubborn than initially expected in the QIR released three weeks before. **The Board completed its hiking cycle by March 2022, with the policy rate at 11.25% and after a one-year wait, in which Banxico assessed the start of the disinflation process, it opened the door for intermittent cuts in March 2024.**

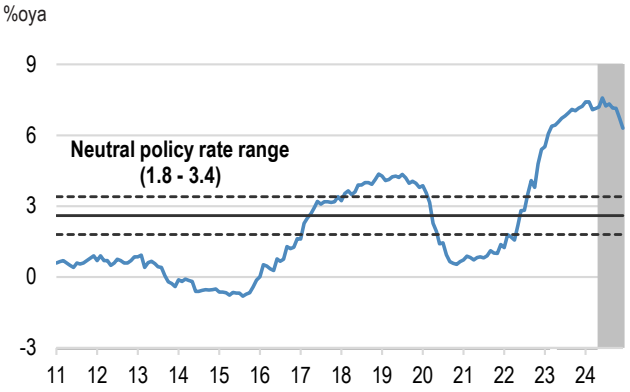
Figure 105: Policy rate and Headline Inflation



Source: INEGI and Banxico.

By early June 2024, rates stood at 11% with the Board unable to ease its tight monetary stance as core **services** remained stubbornly high; even with core inflation gradually aiming at 3.9% by year-end – according to J.P. Morgan forecasts. The board continued to underscore, after an on-hold decision in May, its commitment with its inflation target even if the current stance evidences an extremely tight position that will make difficult the convergence of the overnight policy rate to its neutral level in the next years.

Figure 106: Ex-ante real policy rate



Source: Banxico and J.P. Morgan forecasts. Ex-ante policy rate range is Banxico's. Outlook updated May 2024.

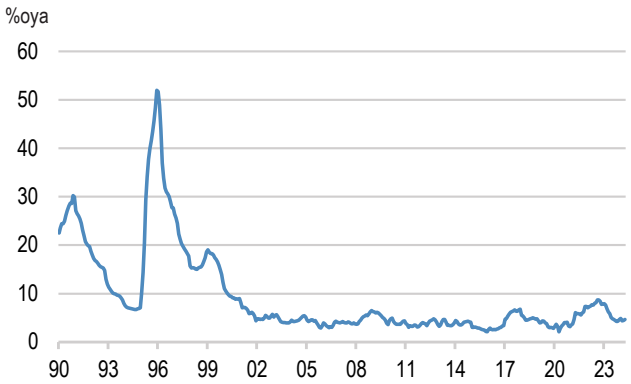
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Prices & Wages

Inflation has struggled to converge decidedly to the Central Bank's 3% target over the past six years even if in the years after the independence of Banxico (see previous section) the disinflation gains were remarkable. Following long spells of double-digit inflation between the 1970s and 1990s, starting in 2000 inflation began to steadily converge to lower levels. In fact, inflation dropped below the central bank's target for the first time ever in 2015 and remained below 3% for much of 2015 and 2016. However, in 2017 annual inflation spiked to 6.8%oya, its highest level since 2000. Several factors conflated to push inflation higher, spanning from pass-through from a weak currency to large increases in energy prices amid energy price liberalization (the so-called *gasolinazo*) and a spike in non-core food prices.

Furthermore, even when some of these forces subsided, inflation remained above target through the middle of 2019, when it began to decline to reach levels close or below 3%. It has rapidly moved above the target range i**n the aftermath of the pandemic** as the reopening of the full economy, persistently higher wages, supply bottlenecks, and pressure on energy and food prices all conflated to bring annual inflation to 7.4% in 2021 and 7.8% the following year. The peak was reached in September 2022 at 8.8%.

Figure 107: Inflation's Gradual Convergence



Source: INEGI.

Convergence over the past decades has been fostered by a wide range of factors, but is facing challenges. Monetary and fiscal policy stability have played a key role as this has allowed the country to develop strong macro fundamentals that help shield the economy in periods of international turmoil. On the other hand, though still in process, the market has become more competitive in key sectors such as retail, tourism, and, more recently, telecommunication services, a fact that has pushed prices structurally lower (there is the risk that the pandemic, however, could lead to some market concentration on the back of bankruptcies among smaller firms).

Finally, although a sharp adjustment in gasoline prices in 2017/2018 helped push inflation higher, this step was the first in liberalizing the gasoline market in Mexico, a process that has been aimed at boosting competition in the sector. However, the AMLO administration has returned to fostering lower gasoline prices through subsidies, which could help bring inflation lower but artificially and at the expense of fiscal accounts, something that could eventually backfire and lead to higher inflation.

Note that the rebasing of the CPI in 2019 significantly reduced the weight of services in favor of more volatile components such as food and energy prices. In 2013 the update of CPI weightings increased the preponderance of services in the index to the detriment of non-core and goods prices. The recent CPI rebasing more than undid this trend, driving the weight of services roughly 7%-pts lower and raising the weights of food and energy prices. Our research found that these latter components not only tend to show larger price increases but also are significantly more volatile than services prices.

The increased weight of food items relative to services is partly reflective of the inclusion of smaller, rural areas in which spending is much more biased toward goods rather than services. It also reflects changes in consumption patterns and adjustments derived from relative price behavior. Our analysis also suggests that pass-through from a weaker currency should be higher under the new index.

Table 9: CPI Weights

%

	2018	2013	2011
Headline	100	100	100.0
Core	75.6	77.4	74.8
Goods	39.2	34.4	37.0
Processed foods	20.1	14.7	14.7
Other goods	19.2	19.7	22.4
Services	36.3	43.1	37.7
Housing	15.5	19.5	17.9
Education	3.6	5.1	5.2
Other services	17.2	18.5	14.7
Non-core	24.4	22.6	25.2
Agricultural	10.2	8.4	8.1
Fresh fruits and vegetables	4.6	3.6	3.3
Meat and egg	5.6	4.9	4.8
Energy and government regulated	14.2	14.1	17.2
Energy	10.0	8.8	7.8
Electricity tariffs	1.5	2.8	2.3
Low-grade gasoline	5.4	3.8	3.7
Government regulated	4.3	5.4	9.4

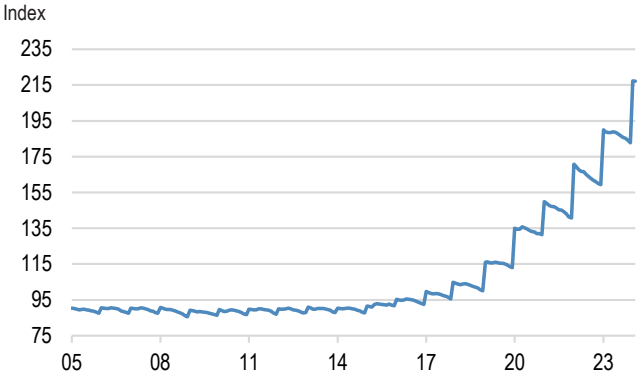
Source: J.P.Morgan with data from INEGI. Might be difference in sum of components due to rounding.

The shift in wage policy is a key challenge to inflation convergence to 3% on a permanent basis. As mentioned above, despite the fact that the economy was barely growing prior to the pandemic, and the output gap became more negative, core inflation not only did not decrease but actually moved up to close to 4%oya throughout the couple of years prior to the pandemic. One would expect slack to pull inflation lower; failure to do so points to other forces at play.

In our view, the shift in wage policy by the AMLO administration is the most likely culprit. The annual increments between 2019 and 2024 took place in a context of negative productivity growth, leading to a brewing disconnect that is bound to put pressure on business costs and eventually lead to higher inflation. There is already evidence of cost pressures in the manufacturing sector, and the post-pandemic dislocations between demand and supply complicated the normalization in price dynamics.

Particularly concerning, the salient government intends to guarantee at the constitutional level that minimum wage increments are above ex-post inflation, which could challenge inflation convergence in the long term.

Figure 108: Real minimum wage



Source: Banxico.

Core inflation, which averaged roughly 3% in the five years through 2016, remained around 4%oya between 2017 and 2021. Yet structural forces from low competitiveness, surging demand, and lingering wage pressures are now complicating the convergence post-pandemic. Underlying inflation has averaged 5.6% since 2020 with core services particularly sticky. So far in 2024, core services have averaged 5.3% while core goods – benefiting from a strong currency – average 3.9%. The former has remained above 5% for almost two years and is expected to remain in a seesaw pattern until early 4Q24; the latter will deliver more encouraging news, reaching near 3.2% in 3Q. We forecast both headline and core inflation around 4% by the end of the year.

Longer term inflation expectations are relatively anchored but have deteriorated in the past few years. After persistently declining between 2010 and 2016, inflation expectations for the next four years have moved back up, virtually erasing the prior improvement. Expectations have risen from a 3.3% low in early 2016 to currently around 3.6%, moving away from the central bank's target. Longer-term expectations (eight years) have shown a similar, though less pronounced, move.

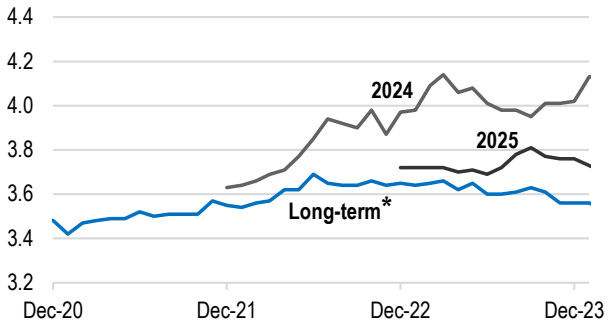
Furthermore, core inflation long-term expectations, which more adequately capture underlying inflation expectations, in our view, have also increased and continued to do so through 2021. If our view is correct and structural forces continue to keep core inflation near 4%oya, inflation expectations should follow suit. Furthermore, the recent spike in prices as the economy recovers from the 2020 pandemic-induced downturn could push up further inflation expectations, creating a negative feedback loop (see COVID-19 section). This would present a dilemma to the central bank as it would be a shift in wage policy amid dormant productivity, which would be pressuring inflation, forcing it to keep a tight policy stance regardless of the state of the economy's cycle.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

As we have emphasized consistently since the start of the AMLO administration, we do not foresee anything close to an inflationary spiral, but we do think that underlying inflation is likely to remain closer to 4% than to 3%, keeping the central bank from achieving its long-term target.

Figure 109: Inflation expectations

%oya, average value



Source: Banxico. Last survey April 2024. *Eight years.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Currency & FX Policy

With an estimated daily turnover of $114bn, the peso is the third most liquid currency across emerging markets, just below the Chinese *renminbi and the Indian rupee*, and the 16th most liquid globally (*BIS Triennial CB Survey, April 2022*). Broad liquidity has led the peso to be one of the preferred hedging vehicles for EM assets. This usually leads the peso to come under pressure whenever volatility sets in across EM assets (the so-called *proxy-hedge* effect), while it trades more according to its fundamentals in scenarios absent volatility.

Carry trade strategies have been heavily used recently given the high level of domestic rates as the hawkish stance from Banxico in a relatively low vol environment has kept the ex ante real policy rate above 6% for more than 12 months.

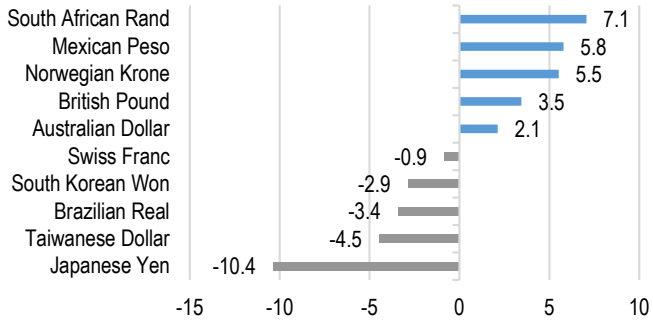
Figure 110: FX in nominal terms

USD/MXN

Source: Banxico.

Figure 111: Major currencies vs USD

%oya



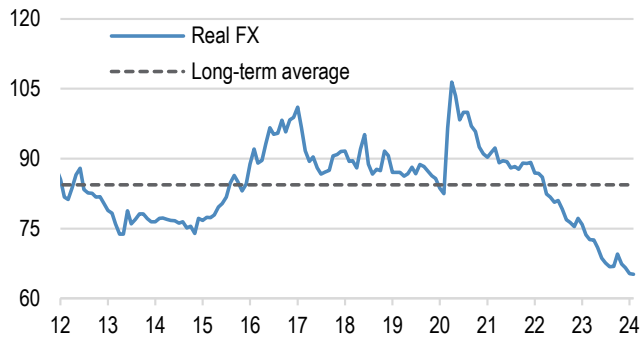
Source: Bloomberg Finance L.P. 12-month change to May 27, 2024.

Since the adoption of the free-floating exchange rate regime in December 1994, there have been no major restrictions on buying/selling the peso. Mexican authorities have been known for adopting a "hands-off" approach in the foreign exchange market. In prior years, this meant authorities would intervene only through pre-established mechanisms ("rules-based" mechanisms) and only to guarantee the efficient functioning of and price-discovery in the FX market. Such mechanisms, however, have been set aside, with Mexican authorities adopting a more discretionary set of policy tools. The shift to more discretionary intervention does not alter authorities' strong commitment to a free-floating currency as an efficient adjustment mechanism for the economy, but it stresses the ineffectiveness of prior "rules-based" mechanisms in a context in which the peso deviated markedly from its fundamentals.

According to the Exchange Rate Commission (*Comisión de Cambios*, in Spanish) comprised of both Banxico and the Ministry of Finance, the new set of tools, which included scarce discretionary sales of USD and the more recent auction of NDFs (2017-2023), were designed to help hedge exposure to MXN, and they aim not to alter the overall valuation of the currency but bring it back to trade more in line with fundamentals and in conditions of sufficient liquidity.

Figure 112: Real exchange rate

Index; 1990=100



Source: Banxico.

USD put/MXN call options mechanism. In 2010 the MoF and Banco de México decided to implement an "FX options" mechanism to accumulate foreign reserves, which had also been used at the beginning of the millennium. Since then, the central bank has sold $600mn of USD put / MXN call options to local financial institutions every last business day of the month. For one month, options owners were able to exchange US dollars for pesos with Banco de México at the previous day's "fixing rate" (i.e., the strike price) whenever they decided to exercise the options.

The "exercise window" of these options was "open" if the reference rate (i.e., the previous day's fixing rate) was below or at the 20-day moving average rate. This provided a structure that allowed the monetary authority to acquire US dollars from market participants whenever there was "an excess supply" of dollars, minimizing the impact of accumulating FX

reserves. The FX options mechanism represented the second largest source of reserve accumulation in 2010-11. This mechanism was last used in October 2011.

"Minimum price" daily US dollar auctions: Given the peso's rapid depreciation over the last months of 2011, in November 2011 the Ministry of Finance and Banco de México replaced the FX options mechanism with "minimum price" daily US dollar auctions. From then until April 2013, Banxico could sell up to $400mn if the peso depreciated 2% or more against the US dollar with respect to the previous working day's fixing rate. The FEC revived this mechanism in December 2014 but decided to auction $200mn instead. This intervention was described as not targeting the USD/MXN level or trying to influence the exchange rate trend but signaling that the FEC was concerned about disorderly (i.e., volatile) behavior in the FX market, particularly in a context of slim liquidity.

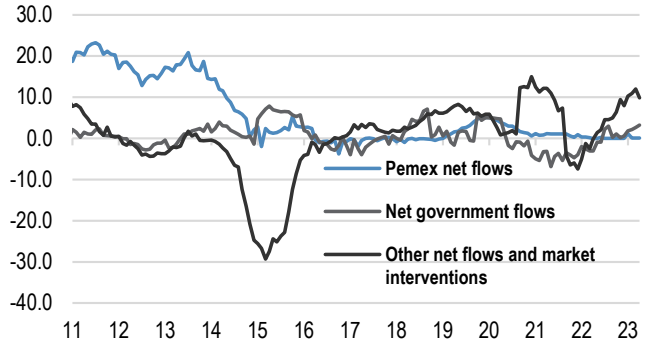
The mechanism remained in place through February 2016. This was not the first time Banxico introduced this minimum price auction mechanism. Following the financial crisis, Banxico used this mechanism between 2008 and 2010, selling around $8.3bn to market participants and helping to dampen the negative effects that excessive FX volatility could have on the Mexican economy.

The introduction of minimum price auctions did not prevent Banxico from accumulating reserves between 2011 and 2014. **However, reserves dropped nearly $17 billion in 2015 following the introduction of non-minimum-price dollar auctions worth $52 million per day in March,** alongside the continuation of minimum price auctions. **In July 2015, minimum and non-minimum price auctions were stepped up** with the former adjusted to trigger the auction whenever the currency depreciated 1% from the prior day's fix and the latter increased to $200 billion. These measures were extended until November 2015, when the non-minimum-price auctions were suspended.

While minimum price auctions remained in operation for some additional time, their lack of effectiveness was evident, and in mid-February 2016 **the FEC acted in concert with Banxico in an effort to curtail the peso weakness. Banxico intervened discretionally, selling $2.0bn. This has been the only discretionary intervention so far. Last year Banxico decided to innovate in terms of FX intervention, announcing the offering of FX hedge settled in local currency for up to $20 billion.** Of note, this mechanism is intended to offer FX hedge without affecting FX reserves.

Figure 113: Sources of net international reserve flows

US$bn, 12m sum



Source: Banxico.

The fix MXN. Banco de México provides a reference exchange rate level on a daily basis by conducting several intra-day surveys using electronic data of FX operations from the main FX brokerage firms. The fixing exchange rate serves as the official reference rate for US dollar-denominated contracts addressed in Mexico.

FX forward and futures market. In addition to the OTC market, the market for listed future peso contracts has continued to grow rapidly over the past few years through the Mexican Market of Derivatives (MexDer), as Siefores (Mexico's pension funds) have turned more active.

Table 10: Banxico's Rule-Based FX Market operations

Period	Amount allocated/exercised[1]
Minimum price US$ auction	
Total	16,566
Total ordinary	14,610
Oct 2008 - Apr 2010	8,339
Nov 2011 - Apr 2013	646
Dec 2014 - Feb 2016	5,625
Total Supplementary	1,956
Daily non-conditional auctions[2]	
Mar - Nov 2015	20,696
Non-minimum price US$ auctions	
Mar 2009 - Sep 2009	10,250
USD put/MXN call auction	
Feb 2010 - Nov 2011	-9,100
Exchange hedge auctions (NDFs)	
Total	0
2017	5,500
2020	1, 991
2023 - 2024	-7,491

Source: Banxico. 1. In the case of USD put options it refers to the amount of the options that were exercised. 2. Starting on Jul 31, 2015, the non-minimum price auction was US$200m instead of US$52m.

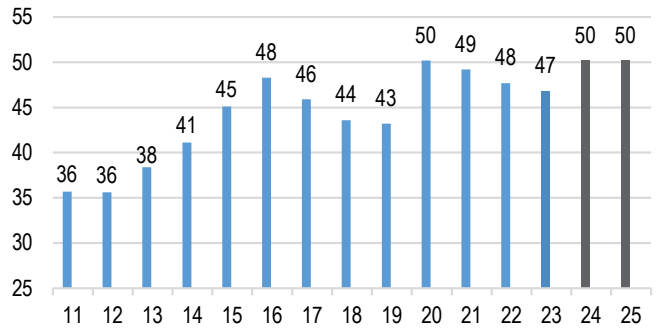
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Fiscal Policy

Following a sustained upward trend for almost a decade, Mexico's fiscal burden reached an inflection point in 2016-2017. After a steady increase in Mexico's historical public sector borrowing requirements (HPSBR or debt burden hereafter) from 33% of GDP to nearly 50% in less than a decade, the previous administration pulled the brakes on public investment, committing to a gradual change of trend in the country's fiscal accounts. The turning point was in 2016 when, alongside cautious monetary and exchange rate policies, the federal government announced spending cuts, focusing on Mexico's state-owned oil company, Pemex. The idea was to avoid further deterioration in Pemex's indebtedness and to provide some relief in terms of the cost structure of the company after the oil-shock unleashed in mid 2014. This marked the beginning of (what would be confirmed later) a temporary improvement in the fiscal accounts.

Figure 114: Historical Public Sector Borrowing requirements

% of GDP



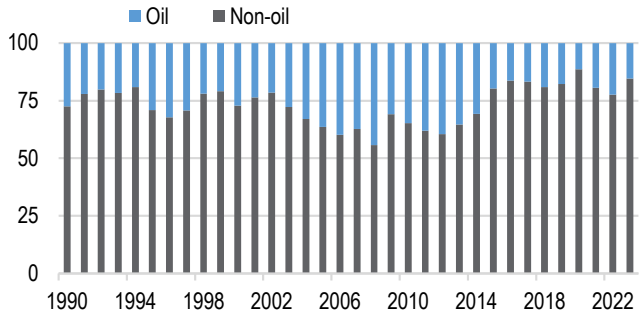
Source: Ministry of Finance.

After a complacent start, the Peña Nieto government stepped up its efforts in subsequent years, achieving its first primary fiscal surplus in nearly a decade in 2017, excluding one-off transfers from the central bank's operational profits, and preserved the surplus in 2018. The result was a much-needed change in trend in the country's public debt to GDP ratio, which dropped from 46% in 2017 to 43.6% in 2018, at the end of the PRI administration. Of note, a big part of the decline, about 1.5%-pts of GDP, owed to hefty transfers from Banxico. Nevertheless, even without transfers from the central bank, the public debt burden continued to ease in 2019, reaching 43.2% of GDP, the lowest since 2014.

Another positive development in the previous administration was the rebalancing of public sector revenues away from oil and toward taxes. The unintended aspect of this adjustment was the plunge in oil prices from mid 2014 alongside the decline in Mexico's oil production to about half its level in the mid 2000s. However, the fiscal reform enacted by the government in 2014 achieved a substantial increase in tax collection, more than offsetting a drop of around 4%-pts of GDP in oil-related revenues. The reform's success was largely due to a large broadening of the taxpayer base. Together, these two trends lowered the share of oil revenues from about 40% of total revenues in 2012 to less than 20% last year.

Figure 115: Public revenue

% of total revenue



Source: Ministry of Finance.

Mexico's taxpayer base increased substantially during the Enrique Peña administration (2012-2018). Despite a large informal sector, the country has managed to dramatically increase its taxpayer base. Mexico's informal workers account for about 56% of the employed population, increasing the costs of tax collection. However, efficiency gains and increased power of the SAT (Mexico's IRS) yielded an increase in the taxpayer base of about 75% to currently 68 million during the past administration. This has been largely behind the rapid increase in tax collection in the past several years. According to the 2020 budget, the Ministry of Finance is aiming at further tax efficiencies and marginal increments in excise taxes, including the first look at digital economy taxes in addition to adjustments to sugary-drink taxes. These actions are expected to increase tax collection by around US$3.0 billion next year.

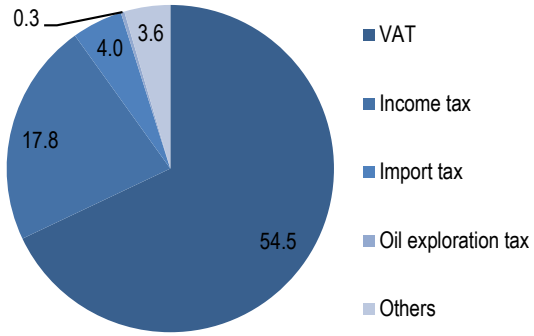
To be sure, not all was good news as the government opted to achieve the consolidation mainly by cutting investment spending instead of current outlays, which has now come back to haunt the new administration.

The AMLO administration (2018-2024) delivered a fiscal strategy intended to communicate fiscal discipline in order to keep markets appeased. The budget's macroeconomic assumptions were not initially unrealistic, with the government committing to a 1% of GDP primary surplus in its first year. However, as the administration went on, assumptions proved to be too optimistic, particularly regarding growth, oil production, and tax revenues through the usual (more orthodox) sources. The salient government promised a fiscal consolidation but instead focused on increasing reve-

nues by depleting contingency funds and public trusts and pulling the brakes on public investment.

Figure 116: Tax revenue

% of total tax revenue



Source: Ministry of Finance.

The spending structure has shifted adversely over the past few years as the government's strategy to consolidate fiscal accounts relied heavily on cutting capex. Since peaking at 4.7% of GDP in 2014, public investment spending has fallen to 2.6% of GDP as of 2018 and remained broadly unchanged for the following years.

Over the short term, the capex cuts have helped reduce the country's fiscal burden but appear unsustainable over the medium term. Lack of investment spending eventually will lead to infrastructure bottlenecks weighing on productivity and hence creating capacity constraints that would lower potential growth and expose the economy to demand-driven imbalances. This is unlikely to change in the short term as around half of AMLO's priority spending programs are focused on transfers or other sort of subsidies. State transfers also continue to account for a large share of government spending too. The fact that **states receive large contributions from the federal government** is explained by the fact that most taxes are collected at the federal level in Mexico; states collect little in taxes on their own.

An important concern over the medium term pertains to the gradual but sustained increase in debt service costs, which accounts for roughly one-fifth of total spending, near multi-year highs. For this year, Hacienda expects a 12%oya increment. We expect debt service to remain close to 15% of total spending. High interest rates already are taking their toll on spending, and there's a risk that they might remain higher than in past cycles.

Figure 117: Interest payments

% of total spending

Source: J.P. Morgan with data from the Ministry of Finance.

Both electoral and pension spending also are expected to add pressure on public finances in the short run but with potential for midterm concerns. Budgeted "priority" programs (e.g., transfers for the elderly and the young) represent close to 8% of total spending and pensions a whopping 23%. With nearly 50% allocated to debt servicing, electoral spending, and pensions, there is little space for flexibility, particularly considering the increasing pressure to fund State Productive Entities (i.e., Pemex and CFE).

The government has provided piecemeal support to Pemex, but rating agencies continue to show unease. According to credit rating agencies, cutting the company's tax burden and profit sharing rights only alleviates the company's burden partially.

Borrowing requirements and financial strategy in 2024. Federal government sector borrowing requirements are expected to amount to 12.4% of GDP this year, 1%-pt above last year. Out of the government's total financing needs, 5.5% of GDP would constitute net debt, or said differently, constitute the expected fiscal deficit for this year. The faster than expected indebtedness for this year, in our view, is cornering the government considering it failed to implement a fiscal consolidation program between 2018 and 2024.

Government net financing needs are expected to be met with issuance of local debt, further reinforcing the government's long-standing policy of relying primarily on local debt to meet its financing needs. As of last year, 77% of the government's net debt was denominated in local currency, while only 23% was denominated in foreign currency, predominantly USD but also EUR, JPY, and GBP.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Table 11: Federal government borrowing requirements

% of GDP

	2023	2024
Total (A + B)	11.4	12.4
A. Net debt	3.7	5.5
B. Amortizations	7.7	6.8
External debt	0.2	0.2
Bonds	0.1	0.1
IFI's	0.1	0.1
Domestic debt	7.5	6.6
Securities	7.4	6.6
Cetes (zero-coupon)	2.5	3.3
Bondes D (Floating rate)	2.3	1.9
Mbonos (fixed-rate)	1.7	1.4
Udibonos (real-rate)	0.8	0.0
Other liabilities	0.1	0.0

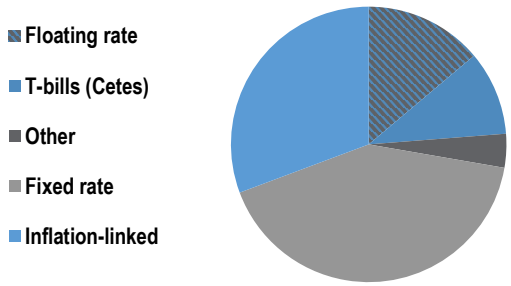
Source: Ministry of Finance.

As has been the case in past years, not only does the government favor local debt issuance over external debt, but it also looks to issue predominantly fixed-rate long-dated bonds to do so. Fixed-rate bonds, plus one-year T-bills and real-rate bonds account for about 82% of the government's outstanding debt. Fixed-rate bonds alone account for half of the government's outstanding local debt.

Another key feature of the government's financing strategy has been gradually increasing the average maturity of its outstanding debt. In fact, domestic debt's average maturity has increased from 1.5 years in 2000 to eight years in 2023. The government appears to be at ease with its current debt-maturity profile as evidenced by the fact that local debt weighted average maturity has remained quite stable since 2012.

Figure 118: Domestic debt

%



Source: Ministry of Finance, 2024 annual financing plan

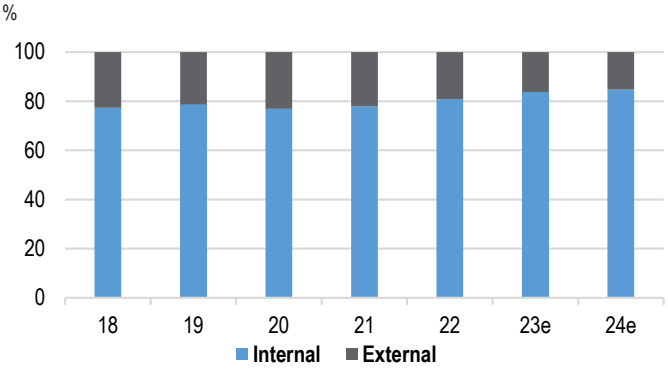
Government debt issuance is conducted through weekly auctions in which fixed-rate and inflation-linked bonds with maturities ranging between three and 30 years are periodically offered. In addition, to provide further liquidity across the whole yield curve, the government issues zero-coupon Cetes, whose maturity ranges between one month and one year. The government also issues floating-rate Bondes D.

In recent quarters the Debt Management Unit from Hacienda has used alternate issuing mechanisms to address liquidity, duration, or concentration issues in the market. Last year, the government implemented 11 exchange operations of government references in order to refinance MXN$753bn. The government is well aware of past refinancing and exchange rate risks that developed into important financial crises. Hence, its current creditor base has been well diversified, allowing to solidify the country's access to international capital markets, maintaining a relatively minor but sufficiently liquid external debt share in its portfolio.

Most external debt is issued in the international capital markets; however, the government also relies on credits with IFOs as such credits constitute a stable and countercyclical source of funding. As with domestic debt, external debt is mainly issued through long-term instruments; external debt's weighted average maturity currently stands at 19.7 years, with duration of nearly nine years. The government has already covered its external debt amortization needs for this year but could refinance next year's maturing deb later in the year if market conditions are considered fit.

Figure 119: Internal and external debt

%



Source: Ministry of Finance, 2024 annual financing plan

Sovereign Credit Ratings

Mexico's fiscal metrics have been a major source of concern in past years. In late 2009, Standard and Poor's and Fitch Ratings downgraded Mexico's sovereign debt rating by one notch to BBB, from BBB+. This rating was in line with that of other emerging economies such as Brazil, Russia, and Peru and marginally below that of countries such as Poland or Chile. On the other hand, Moody's had the country's credit rating at Baa1. One of the main weaknesses stressed by the

rating agencies at the time was the country's high dependence on oil revenues, which at some point reached more than one-third of the total; similarly, tax collection was not perceived as strong as a higher rating would warrant.

The approval of structural reforms between 2013 and 2014 prompted all three major credit ratings agencies to upgrade Mexico's rating, with Moody's bringing Mexico to the "A" category. The approval of structural reforms spanning from reforms to the fiscal system and the energy sector to the labor and energy markets spurred optimism about the Mexican economic outlook. The reforms aimed largely at increasing productivity, be it through increased investment in key sectors such as energy and telecom or increased labor market efficiency and the reduction of informality. These so-called structural reforms raised hopes that Mexico's long-term growth prospects could improve after several years of lackluster GDP growth.

Table 12: Mexico sovereign debt credit rating

S&P	Rating Chg. Date	Moody's	Rating Chg. Date	Fitch	Rating Chg. Date
BBB (Stable)	**6-Jul-22**			**BBB- (Stable)**	**17-May-22**
BBB	26-Mar-20	**Baa2 (Stable)**	**8-Jul-22**	BBB-	15-Apr-20
BBB+	19-Dec-13	Baa1	17-Apr-20	BBB	5-Jun-19
BBB	14-Dec-09	A3	5-Feb-14	BBB+	8-May-13
BBB+	8-Oct-07	Baa1	6-Jan-05	BBB	23-Nov-09
BBB	31-Jan-05	Baa2	6-Feb-02	BBB+	19-Sep-07
BBB-	7-Feb-02	Baa3	7-Mar-00	BBB	7-Dec-05
BB+	13-Mar-00	Ba1	10-Aug-99	BBB-	15-Jan-02
BB	10-Feb-95	Ba2	20-Feb-91	BB+	3-May-00

Source: Bloomberg Finance L.P., S&P, Moody's, and Fitch Ratings

Financial Stability Council

In the most recent session (March 2024) the Financial Stability Council, comprised of Banxico, the Ministry of Finance, and the National Banking Commission, updated its balance of risks and analyzed current challenges for the financial system, concluding that it remains solid and resilient. A similar conclusion was reached by Banxico in its semiannual Financial Stability Report (June 2024).

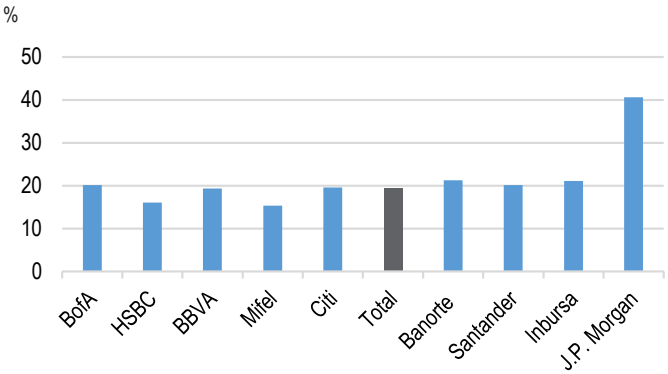
Despite relatively stable global financial conditions in recent months, several risks could impact financial stability. These include prolonged inflationary pressures, tighter financial conditions, and escalating geopolitical tensions. Additionally, the likelihood of extended periods of high market volatility and uncertainty have increased due to political and electoral events globally.

In Mexico, financial markets have shown relative stability, mirroring international trends. The Mexican peso continued to strengthen, with a slight appreciation since the last Council session. Short-term government bond interest rates have decreased slightly, while moderate increases have been observed in mid- and long-term assets. Interestingly, in this month's Financial Stability Report from Banxico, the Board underscored that, despite recent spikes in market volatility, financial conditions remain fairly stable. At any rate, Governor Rodriguez emphasized that Banxico was vigilant regarding ongoing developments after the June 2 elections and the market reaction to what we believe is "institutional volatility."

Coming back to the Financial Stability Council, it underscored that sovereign credit ratings held the sovereign with a stable outlook; however, Pemex's credit situation faces significant challenges, with a recent downgrade and a negative outlook from one major rating agency.

Finally, stress tests indicated that the Mexican financial system continues to have the capacity to absorb shocks, maintaining solvency and profitability, largely due to a well-capitalized and liquid commercial banking sector. Non-bank financial intermediaries face challenges, but worth noting, they do not represent systemic risks.

Figure 120: Major banks capitalization rates



Source: CNBV.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Politics

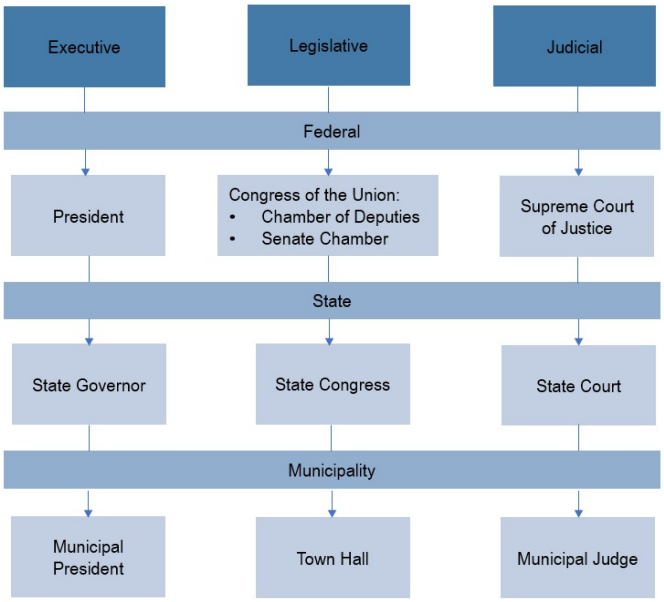
Political System

The United Mexican States is a federal republic composed of 31 states and the Federal District. The government is based on a congressional system, where the President is head of state and head of government and of a multiparty system. Governmental powers were established by the Constitution in 1917 and are divided into three branches: executive, legislative, and judicial. The states that constitute the federation must also have a republican form of government based on their respective congressional systems, with governors elected for six-year terms without the possibility of reelection. The Constitution also establishes that states must adopt the municipality as the basis for the territorial, political, and administrative division. The country is divided into 2,441 municipalities, each with its municipal town hall made up of a municipal president and a varying number of officers and trustees.

- **Executive branch:** Headed by the President and advised by a cabinet of secretaries who are independent of the legislature. The President, who is elected by popular vote, serves a six-year term without the possibility of reelection. They can nominate the cabinet, the attorney general, diplomats, high-ranking military officers, and Supreme Court justices. As there is no vice president, in the event of the death or incapacity of the President, the legislature designates a provisional successor.
- **Legislative branch:** Power is vested upon the Congress of the Union, a two-chamber legislature comprising the Senate (128 senators) and the Chamber of deputies (500 deputies). Senators serve six-year terms and deputies three-year terms, while members of the legislature cannot be reelected for the immediately succeeding term. Three-fifths are elected directly by popular vote, while the remainder are selected in proportion to the votes received by political parties in each of five large electoral regions.
- **Judicial branch:** Power is exercised by the judiciary, composed of the Supreme Court of Justice, the Council of the Federal Judiciary, and the collegiate, unitary, and district tribunals. Supreme Court justices serve life terms, and the court consists of 11 members, nominated by the President and confirmed by Congress.

Suffrage is universal, free, secret, and direct for all Mexican citizens 18 and older. The identity document in Mexico also serves as the voting card, so all citizens are automatically registered for all elections. Presidential elections are scheduled every six years, except in the case of the absolute absence of the President. Legislative elections are scheduled every six years for the Senate (concurrent with the Presidential) and three years for the Chamber of Deputies. The National Electoral Institute (INE), an autonomous public agency, is in charge of organizing federal elections.

Figure 121: Political Powers



Source: INE.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Political Parties

Mexico has a multi-party system, meaning there are more than two dominant political parties. The INE nationally recognizes nine (two are in process of extinction), with four having more dominance. The smaller parties survive in isolation or by forming local coalitions with the larger ones. Prior to 2000, the PRI dominated Mexican politics for 70 years. The INE is charged with the registration, funding, and oversight of national political parties. In order to obtain registry, aspiring political parties should hold assemblies in at least 20 entities or 200 electoral districts in which 3,000 members per entity or 300 per electoral district should participate. For them not to lose registration on a given electoral cycle parties must obtain at least 3% of the vote for either President, Senators, or Deputies.

Figure 122: List of Political Parties

Logo	Party	Abbr.	Foun.	Position	Leader	Representation		
						Sen.	Dep.	Gov.
	Partido Accion Nacional (National Action Party)	PAN	1939	Center-right to right-wing	Marko Cortes	17%	18%	13%
	Partido Revolucionario Institucional (Institutional Revolutionary Party)	PRI	1929	Center to center-right	Alejandro Moreno	13%	12%	6%
	Partido de la Revolucion Democratica (Party of the Democratic Revolution	PRD	1989	Center-left	Angel Avila	2%	3%	0%
	Partido del Trabajo (Labor Party)	PT	1990	Left-wing	Alberto Anaya	6%	6%	0%
	Partido Verde Ecologista de Mexico (Ecologist Green Party of Mexico)	PVEM	1993	Center-right to right-wing	Karen Castrejon	11%	9%	0%
	Movimiento Ciudadano (Citizens Movement)	MC	1998	Center-left	Dante Delgado	4%	11%	6%
	Movimiento Regeneracion Nacional (National Regeneration Movement)	MORENA	2011	Center-left to left-wing	Mario Martin	47%	42%	75%

Source: INE, Congress of the Union. Note: Senators and Deputies percentages by party are for Sep-24 Congress based on estimates from district counts.

PAN: Founded in 1939, the PAN is a conservative party and one of the four main political parties in Mexico. Two presidents have been elected as PAN candidates: Vicente Fox (2000-2006), whose victory marked the first time in 70+ years that the Mexican presidency was not held by a member of the PRI, and Felipe Calderon (2006-2012). In these two periods, the PAN was the strongest party in both the Senate and the Chamber of Deputies, but it did not have a majority in either. In terms of economic policies, it supports free enterprise and privatization.

PRI: The party was founded in 1929 by Plutarco Elías Calles, an imminent figure of the Mexican revolution. It held uninterrupted power from 1929-2000, first as the National Revolutionary Party (PNR), then as the Party of the Mexican Revolution (PRM), and lastly as the PRI starting in 1946. Besides having the presidency, the PRI also had all members of the Senate until 1976 and all state governors until 1989. The party has had a wide array of ideologies over the years.

PRD: The PRD originated from a leftist faction of the PRI in 1986, which pressured the PRI to become more democratic. The party was officially founded in 1988, after the controversial election of Carlos Salinas de Gortari in which the PRI is widely believed to have resorted to electoral tampering to remain in power. Several of Mexico's current political figures were militants of this party, including Andres Manuel Lopez Obrador, who ran for the presidency in 2006 and 2012 as a candidate of the PRD, and Marcelo Ebrard, the current Minister of Foreign Affairs and former Mayor of Mexico City.

PT: Founded in 1990, it first participated in the federal elections of 1991 but failed to win the amount of votes necessary to be recognized as a national party. Since then, it has usually participated in elections through coalitions, first with the PRD and then with MORENA.

PVEM: It is a green conservative political party founded in 1993 that has historically participated in coalitions with the PRI, but it now supports MORENA. Since its inception, it has been plagued by corruption scandals and anti-green practices.

MC: The social-democratic party was registered in 1999. They are pro-business and believe in restructuring the economy by reducing regulation and state-owned monopolies. They have historically run in coalition for the presidential elections, supporting the PRD in 2000, 2006, and 2012 and the PAN in 2018. They currently hold the governorship of two of Mexico's most important states in terms of economic activity, Jalisco and Nuevo Leon.

MORENA: Left-wing political party registered in 2014 and was led by the three-time presidential candidate and current President of Mexico. It was originally founded as a non-profit to protest against political corruption and electoral fraud. They participated in (legislative) elections for the first time in 2015, where they won 35 seats in the Chamber of Deputies. 2018 was the first election in which MORENA participated, and won, in coalition with the PT and the PES (which is in process of extinction). They won the election with 53% of the vote, with a total of 156 in the Chamber of Deputies and 55 seats in the Senate. It also won four governorships (Mexico City, Chiapas, Tabasco, and Veracruz). In 2021's midterm elections the coalition failed to secure the two-thirds constitutional majority. The party describes itself as an opponent to the neoliberal economic policies Mexico started adopting in the 1980s. On social issues, it embraces a progressive agenda in favor of women's rights and the LGBTQ+ community.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Mexico's Presidents

Since the restoration of democracy after the Mexican Revolution and the drafting of the Constitution of 1917, Mexico has had 22 presidents. Claudia Sheinbaum, the current president-elect, will become the 23rd president and the first female to hold the office on Oct 1. Keep in mind that, throughout history, Mexico has had several forms of government, including two periods of monarchical rule. In the early 20th century the country was still faced with considerable political instability, with most presidents elected during this period not completing their terms. In fact, until the presidency of Lazaro Cardenas, presidents were in office for an average of 15 months. The following list only includes heads of state who fall under the scope of political principles set by 1917's Constitution:

Venustiano Carranza (1917-1920): The first president of the new republic, he was a leader in the Mexican civil war following the overthrow of dictator Porfirio Diaz. He favored political, but not social, reform and largely opposed changes that followed the revolution, including those provisions that established reforms on land ownership, control of natural resources, labor, and social legislation. His term was marked by continued problems with revolutionaries Pancho Villa and Emiliano Zapata, serious financial difficulties, and social unrest.

Adolfo de la Huerta (1920): He served as interim president from June through November 1920, after helping Alvaro Obregon and Plutarco Elias Calles to overthrow Venustiano Carranza. He had previously served as governor of Sonora from 1917 to 1920. He then served as minister of finance under Obregon from 1920 to 1923 but later organized an armed rebellion against the government when Obregon supported Calles in 1924's election. He went into exile from 1924 until 1935 in the United States but returned to Mexico when charges against him were dismissed by then-president Lazaro Cardenas.

Alvaro Obregon (1920-1924): He did not take part in the revolution that overthrew Porfirio Diaz, but in 1912 he led a group of volunteers to support President Francisco Madero against the rebellion led by Pascual Orozco. When Madero was murdered by Victoriano Huerta in 1913, Obregon joined Venustiano Carranza against Huerta. However, in response to Carranza's reactionary policies, he took a leading role in overthrowing the president in 1920 and was later elected the new president that same year. He managed to impose relative peace in Mexico following 10 years of civil war, heralding an era of significant reform to Mexico's education system under his minister of education, Jose Vasconcelos.

Plutarco Elias Calles (1924-1928): Founder of the National Revolutionary Party (PNR, and later PRI), he joined the struggle of Francisco Madero against Porfirio Diaz in 1910 and later became governor of Sonora in 1917. He was appointed secretary of commerce, labor, and industry in the cabinet of Venustiano Carranza but resigned to support the candidacy of Alvaro Obregon. Calles served as secretary of foreign relations in the interim government of Aldolfo de la Huerta and as secretary of interior under Obregon. During his presidency, he sponsored agrarian, labor, and educational reforms. He also curtailed the influence of the army in Mexican politics. Avidly anticlerical, he introduced a series of laws eliminating the influence of the Catholic Church. Calles also restricted alien ownership of land and regulated the petroleum industry. When Obregon was assassinated in 1928, Calles held power behind three puppet presidents for six years. Not aligned with Lazaro Cardenas in 1934, who seized control of the PNR, he went into exile in California until 1941.

Emilio Portes Gil (1928-1930): He became provisional president after the assassination of Alvaro Obregon. He previously served as the governor of Tamaulipas from 1925 to 1928. He was heavily influenced by Plutarco Elias Calles and, thus, was unable to freely exercise his presidential powers. From 1930 to 1931 he was president of the PNR and was later appointed minister to France and delegate to the League of Nations (1931-32), attorney general, and foreign minister. He retired from politics in 1936.

Pascual Ortiz Rubio (1930-1932): During his tenure, Plutarco Elias Calles largely retained power and, thus, Ortiz Rubio resigned in protest in 1932. Following his resignation, he self-exiled in the United States and returned to Mexico in 1935 after the election of Lazaro Cardenas. He previously served as governor of Michoacan from 1917 to 1920 and then as secretary of communications from 1920 to 1921.

Abelardo L. Rodriguez (1932-1934): He completed the term of President Pascual Ortiz Rubio after his resignation, the third of the "Maximato" period presidents. As for the two before, Plutarco Elias Calles held considerable political power. Still, Rodriguez was a bit more successful than his predecessors in asserting presidential power againt Calles's influence.

Lazaro Cardenas (1934-1940): He is most known for his efforts to carry out the social and economic aims of the Mexican Revolution, including distributing land, organizing workers' confederations, and nationalizing foreign-owned industries. Prior to his election, Cardenas was chosen to be the PNR's president in 1929, and he worked hard to transform it into a truly national party, a major element of stability in the revolutionary regime. He became the PNR's presidential candidate for the 1934 election, a virtually assured win. After exiling Calles to the US in 1936, he proceeded to carry out a

wide set of reforms, with the agrarian reform being one of the most important. He also reorganized the government party and renamed it "Partido de la Revoluacion Mexicana" (PRM), allowing mass groups to join. In 1937 his government expropriated the nation's principal railways, and in 1938 President Cardenas nationalized the oil industry, placing them under autonomous public corporations (today FERROMEX and PEMEX). When his term in office came to an end, he oversaw the election of his succesor, General Manuel Avila Camacho, and intended to withdraw from political life. However, with the outbreak of WWII, he came back to public office and served as minister of national defense from 1943-1945.

Manuel Avila Camacho (1940-1946): Most known for overseeing the consolidation of the social reforms of the Mexican Revolution and the beginning of an unprecedented period of strong bilateral relations with the US. Prior to his election, he served as minister of national defense under President Lazaro Cardenas, post which he resigned in order to become the PRM's candidate in 1939. He was elected president in a government-controlled election in 1940. During his tenure, he expanded the school system, built hospitals, sponsored social-security legislation, and supported limited land reform. However, his administration is primarily remembered for establishing a new relationship with the US government, settling the long-standing dispute over the expropriated US oil assets and supplying needed agricultural labor and raw materials for the Allies in WWII. Avila Camacho's presidency represented a turn to the right after Cardenas' leftist government, stabilizing reform and institutionalizing social advances.

Miguel Aleman (1946-1952): A lawyer, he became governor of Veracruz in 1936, a post which he resigned in 1940 to manage Manuel Avila Canacho's presidential campaign. After Camacho was elected, he was appointed minister of interior. He became the official candidate for the PRI and was elected president in 1946. His administration saw a slowdown in Mexico's agrarian reform but greatly accelerated industrial development and public works projects. Most notable in his tenure was the completion of University City, the core of Mexico's National Autonomous University (UNAM). Despite a corrupt administration, economic progress was marked during his tenure.

Adolfo Ruiz Cortines (1952-1958): He was the last Mexican president to have fought in the Revolution. During his administration he gave women the right to vote and proposed several infrastructure bills that led to the creation of the National Housing Institute and National Nuclear Energy Commission. His social policies included the implementation of "aguinaldos" (end-of-year bonus), and, unlike previous PRI administrations, he was an advocate of fiscal austerity. He has been credited with leading the strong economy period known as the "Mexican miracle."

Adolfo Lopez Mateos (1958-1964): Known for expanding industrial development and furthering agrarian reform. Prior to his election, he served as minister of labor, helping draft the US-Mexico migrant-labor treaty. Lopez Mateos increased state intervention in the economy, initiated literacy campaigns, and started major public health programs. His tenure was clouded by accusations of corruption.

Gustavo Diaz Ordaz (1964-1970): A lawyer, he served as a supreme court president for the state of Puebla prior to being elected to the Mexican Senate in 1946. In 1958 he became interior minister and was elected to the presidency in 1964 as a PRI candidate. During his tenure, he emphasized economic development, but his administration is mostly remembered for the student protests that took place in 1968 and for their subsequent repression by army and state forces during the "Tlatelolco Massacre" in which hundreds of unarmed protesters were killed.

Luis Echeverria Alvarez (1970-1976): Prior to his election, he served as minister of interior during Diaz Ordaz's tenure. When he became president he moved sharply to the left, releasing most of the prisoners arrested in 1968, redistributing land among landless peasants, expanding social security, housing, and transportation programs, and pouting large sums of money into public works. In foreign policy, Echeverria opened diplomatic relations with China and supported Latin America solidarity. Domestically, he led the country during a period of significant economic growth, with the Mexican economy aided by high oil prices.

Jose Lopez Portillo (1976-1982): Professor of law, political science, and public administration at UNAM prior to becoming a politician. He held several administrative positions under Presidents Diaz Ordaz and Echeverria before becoming minister of finance in 1971, when he modernized tax collection procedures and reduced public spending. As president, he had a more conservative approach than his predecessor, de-emphasizing land redistribution and favoring the creation of non-agricultural jobs, exploitation of oil and natural gas, tax concessions to stimulate industrial development, and attraction of foreign investment. Lopez Portillo's most significant political reform was to increase the size of the Chamber of deputies to allow for more minority participation in Mexican politics, which had been dominated by the PRI since 1929.

Miguel de la Madrid (1982-1988): He received a law degree from UNAM and held a master's degree in public administration from Harvard University. He worked for the National Bank of Foreign Commerce and the Bank of Mexico. A mem-

ber of the PRI, he first entered government service in the Treasury in 1965. From 1970 to 1972 he worked at PEMEX but became minister of planning and budget in Lopez Portillo's administration. He was a friend of the business community and a political conservative, but he inherited a severe economic and financial crisis as a result of the international drop in oil prices and a crippling external debt on which Mexico had defaulted months before he took office. De la Madrid introduced several neoliberal policies to overcome this crisis, beginning an era of market-oriented Presidents in Mexico, along with several austerity measures including deep cuts to public spending.

Carlos Salinas de Gortari (1988-1994): He took office in 1988 amid very controversial elections, in which it is widely thought the PRI resorted to vote fraud. An economist, he was the first Mexican president since 1946 who was not a law graduate. His tenure was marked by the entrenchment of the neoliberal, free trade economic policies initiated by his predecessor, for whom he had served as minister of budget and planning prior to his election. He sold hundreds of inefficient state-owned corporations to private investors and spent some of the proceeds on infrastructure and social services. He also took steps to open the protected economy to foreign investment and competition. His government co-negotiated the North American Free Trade Agreement (NAFTA), which reduced tariffs between Mexico, the US, and Canada when it went into effect in 1994. A series of mismanagement and corruption scandals plagued the end of his tenure and crumbled his public image, including the Zapatista uprising and the infamous assassination of Luis Donaldo Colosio (Salinas' hand-picked successor and PRI candidate for the 1994 election).

Ernesto Zedillo (1994-2000): Zedillo worked for Mexico's central bank and the ministry of programming and budget, becoming secretary in 1988. He successfully controlled Mexico's large foreign debt and reduced the inflation rate. Appointed secretary of education in 1992, he decentralized the public school system. In 1993 he became campaign manager for PRI presidential candidate Luis Donaldo Colosio and was named the party's candidate soon after his assassination. As president, he continued with Salinas's economic policies but faced one of the worst economic crises in Mexico's history. Although his policies eventually led to relative economic recovery, discontent with seven decades of PRI rule led the party to losing the legislative majority in 1997 and 2000's general election.

Vicente Fox (2000-2006): Elected in 2000 as a PAN candidate, his term in office marked the end of 71 years of uninterrupted rule by the PRI. His campaign focused on ending government corruption and improving the economy. As president, he continued with the neoliberal economic policies that his predecessors had adopted since the 1980s, with the first half of his administration being marked by a further shift to the right. The second half of his tenure was marked by conflict with Andres Manuel Lopez Obrador, then the Mayor of Mexico City, with Fox unsuccessfully attempting to remove Lopez from office and to prevent him from participating in the 2006 presidential elections.

Felipe Calderon (2006-2012): Former secretary of energy during Fox's administration, Calderon won the election as the PAN candidate by a very slim margin above PRD's candidate, Andres Manuel Lopez Obrador, who called for a complete recount of the votes. His presidency was marked by the declaration of war against the country's drug cartels. It was also marked by 2009's global financial crisis. During his term, Calderon additionally oversaw the passage of legislation to reform Mexico's judicial system, worked to strengthen the energy sector, and to increase the number of jobs.

Enrique Peña Nieto (2012-2018): Prior to being elected president as candidate of the PRI, he served as governor of the State of Mexico. During his first four years, he led an extensive breakup of monopolies, liberalized Mexico's energy sector, reformed public education, and modernized the country's financial regulation. However, his administration was plagued by several corruption scandals (including the Odebrecht controversy), as well as worsening crime rates (Iguala mass kidnapping) and drug trade ("El Chap" famous escape from prison). Drops in oil prices limited the success of his economic reforms, further harming his popularity.

Andres Manuel Lopez Obrador (2018-2024): Elected in July 2018 after two failed campaigns in 2006 and 2012, he began his political career in the PRI but later left the party to join the center-left PRD. Dissatisfied with the PRD's support of EPN's economic initiatives, he founded a new political party, MORENA, in 2014. During his presidential campaign of 2018, he emphasized his opposition to NAFTA and EPN's decision to open up Mexico's energy industry to private investment, painting himself as a man of integrity in the face of political corruption. He won the election by a landslide, with his message remaining focused on narrowing the country's wealth gap, improving the lives of the poor, reducing violence, and eradicating corruption. Soon after taking office, he cancelled Mexico City's new airport (one of his campaign promises) and began his attempts to reform Mexico's energy sector, with the ultimate goal of taking back 2013's Energy Reform, which opened the oil and electric industries to private investment. Still, the USMCA took effect in 2018, shortly after he was elected but before he took office. He has been fiscally conservative, even during the Covid-19 pandemic. MORENA did not gain a constitutional majority in Congress

during 2021's midterms despite AMLO's high popularity.

Claudia Sheinbaum (2024-): President-elect of Mexico, she will take office on October 1, 2024. A physicist (BSc.) and energy engineer (PhD.) from UNAM, she will become the country's first female President. Prior to being elected, she served as Secretary of Environment for Mexico City from 2000 to 2006, when AMLO was the governor. She was delegational chief of the Tlalpan borough from 2015-2017 before being elected as governor of the capital, a position in which she served from 2018 to 2023.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

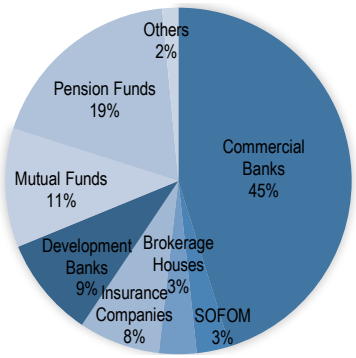
Financial System

Mexico's financial system is made up of banks, credit organizations, insurance companies, brokerage firms, pension and mutual fund managers, as well as regulatory and supervisory institutions: SHCP (Ministry of Finance), the highest authority in the financial system; Banco de Mexico (the central bank); CNBV (National Banking and Securities Commission); CNSF (National Commission of Insurance Companies); CONSAR (Pension Funds Regulator); CONDUSEF (Consumer Credit Protection Agency); and IPAB (Savings Protection Institute).

The CNBV regulates credit institutions, auxiliary credit organizations, and securities organizations; CNSF regulates insurance companies; and CONSAR regulates the Mexican pension funds (*Afores* and *Siefores – Afores* are the pension fund administrators and *Siefores* are the pension fund portfolios).

Figure 123: Financial System Asset Breakdown

% of total Assets in Financial System

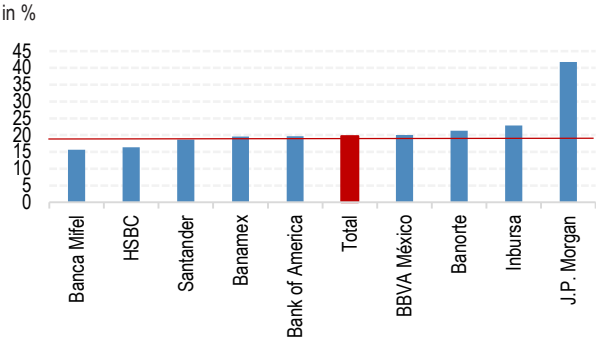


Source: Banco de Mexico.

The Mexican banking system is well capitalized (capital/risk-weighted asset ratio of 15.2%) with non-performing loans at a moderate 2.1% of total as of 2023 and a minimum capitalization rate of 10.5%.

Figure 124: Major Bank's Capitalization Rates

in %



Source: CNBV and J.P. Morgan.

The Mexican banking system is dominated by foreign-controlled banks, which make up over 70% of system assets. BBVA (21.7%) and Santander (15.4%) are the two largest banks in the country.

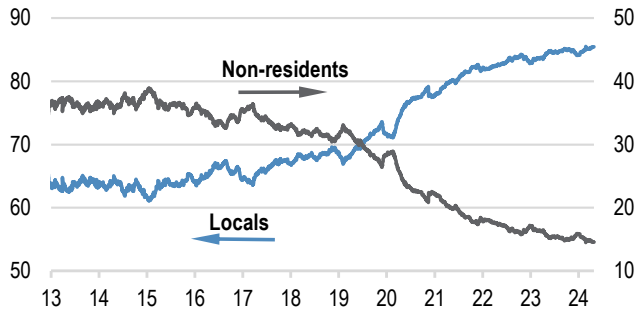
Fixed Income Market

Federal government securities (FGS). Federal government securities make up about 70% of Mexico's local fixed income market, followed by IPAB, the Savings Protection Institute (10%), corporate debt (7%), and mortgage-backed securities (2%).

Government debt is highly concentrated in fixed-rate Mbonos, which account for nearly half of total outstanding debt. The remaining is distributed across inflation-linked Udibonos (23%), floating-rate Bondes D (19%), and zero-coupon Cetes (12%).

Figure 125: Government securities holdings

% of outstanding



Source: Banco de México and J.P. Morgan.

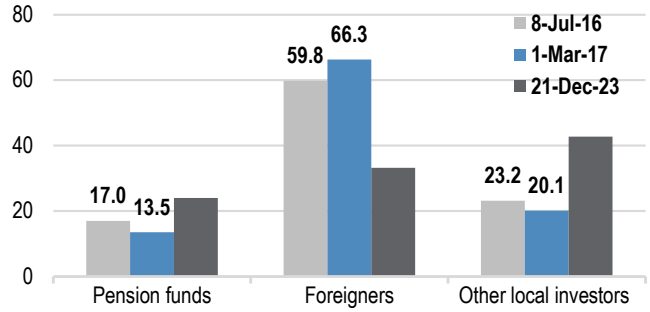
Cetes: Short-term (up to one year) zero-coupon bonds auctioned every week (except for the one-year bond, which is auctioned every four weeks). These bonds are Euro-clearable, and most foreigners are exempted from withholding taxes.

Mbonos: Medium- and long-term fixed-rate Mbonos are also Euro-clearable. In October 2010 Mbonos were included in Citigroup's World Government Bond Index (WGBI), with Mexico being the first Latin American country to be included. This, in addition to ample liquidity conditions, a global search for yield, and Mexico's strong fundamentals, triggered large foreign inflows into the Mbono market. Foreigners currently hold 58% of outstanding Mbonos, up from 25% in 2010.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 126: Mbono holdings

% of outstanding



Source: Banco de México and J.P. Morgan.

Udibonos: These are linkers denominated in inflation-indexed units called UDIs but paid in MXN. The UDI (inflation-linked investment unit) is a non-traded monetary unit used to translate the price, interest payment, and principal of UDI-denominated securities (or swaps) into pesos. The value of a UDI is a function of the biweekly CPI. Despite liquidity in Udibonos increasing over the past years, the Udibonos are still much less liquid compared with Mbonos. Nevertheless, they are the real-rate benchmarks for corporate issuance. The UDI is published on Banco de México's website with the release of biweekly inflation (usually the 10th and 25th days of each month).

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Capital Markets

The Mexican Stock Exchange hosts 1,932 listed equities of which 131 are local stocks and the rest are GDRs, local and international ETFs/ETCs, and FIBRAs.

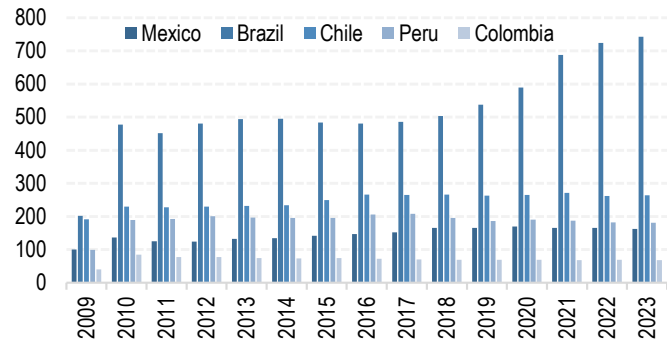
Figure 127: Mexican Stock Exchange Equity Listings

Equity Listings	
Local Stocks	131
GDRs	1,014
Local ETFs	15
International ETFs	756
FIBRAs	16
Total	**1,932**

Source: BMV.

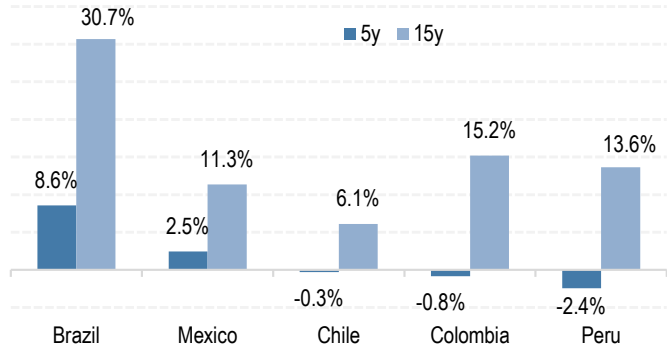
The number of domestic listings in Mexico now amounts to 162, +11% in the past 15 years. However, after bottoming in 2007- 2009, the number of equity listings has increased, but it decreased 2.4% in 2023 after remaining flat for the past two years. The number of net new listings peaked in 2013, with no new ones in the last three years.

Figure 128: Number of Listed Domestic Equities



Source: Bloomberg Finance L.P.

Figure 129: Average Annual Growth Rate in Single-Stock Domestic Listings

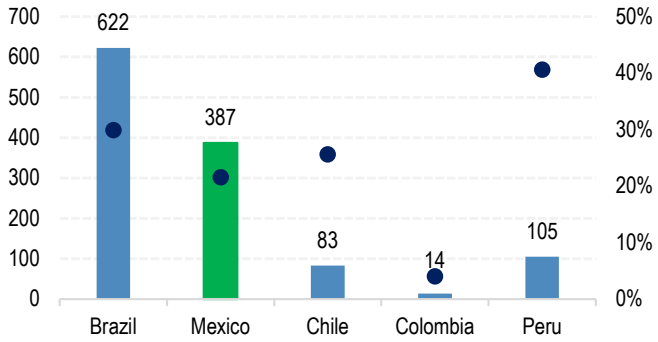


Source: Bloomberg Finance L.P. Chile includes both the Bolsa de Comercio de Santiago and Bolsa Electrónica de Chile as of 2023.

The total market cap of all the listed Mexican companies in the Mexican Stock Exchange is $387 bn ($190 bn free float), or 26% of the country's 2023 nominal GDP. Mexico is the second-largest equity market in LatAm after Brazil. The third largest market in the region, Chile, has 21% of Mexico's market cap.

Figure 130: Market Cap of Selected Latam Countries & as % of GDP

$ in billion



Source: Bloomberg Finance L.P. * Currency in USD. Right-hand axis is Market Cap as a percentage of GDP.

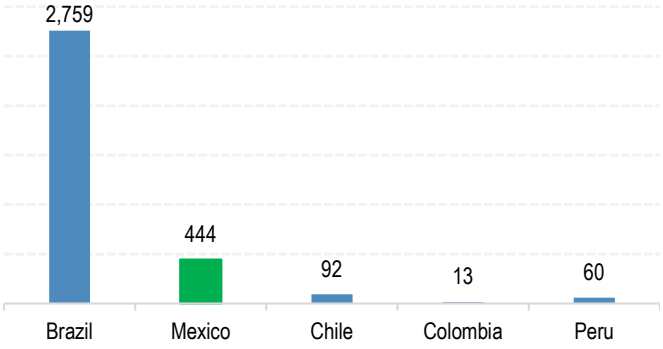
Mexico is also the second most liquid exchange in LatAm, with average traded volume of $437 mn per day, but significantly below Brazil's $2.9 bn. Still, liquidity is 5x higher than Chile's. In April 2004 the Mexican pension funds were allowed to trade in local equities through the use of ETFs, and traded value spiked 77%. After falling in 2008 and 2009, in 2010 daily traded volume more than made up for the declines in the previous two years and continued to increase, peaking in 2013 with investors' speculation on the impact of the structural reforms in the economy and financial markets. Liquidity is -6% vs. its peak in 2013-14, accounting for stocks that were not yet listed back then and recent stock de-listings. It is important to note that the decrease in liquidity is highly related to large-caps (namely CX, TV, and AMX), while there are other names that have followed an opposite trend, such as Real Estate (namely Industrial), Airports (i.e., GAPB, OMAB, and ASURB), most large-cap Staples (i.e., WALMEX, BIMBOA, AC*, and KOF) that remain the most relevant accounting for 33% of the total vs. only 22% 10 years ago, and Financials (i.e., GFNORTEO, RA, BBAJIO and Q*). Find our detailed report here.

Share liquidity in Mexico improved 27% in 2023 vs. its five-year average, with ADTV closing the year at $642 mn (includes ADRs and based on a sample of 57 companies). This means liquidity is now only -6% vs. its peak in 2013-14, accounting for stocks that were not listed back then and recent stock de-listings. Large-cap names were largely to blame for 2013-20's drop in liquidity, but all have since mostly recovered. In fact, only small caps saw a decrease during

2023 vs. its 5Y average while the rest were up +30%. Regarding companies with dual listings, ADRs traded 50% higher vs. the local listing and accounting for 60% of the company's total trading (with exception of airports).

Figure 131: 3m ADTV for Selected Latam Countries

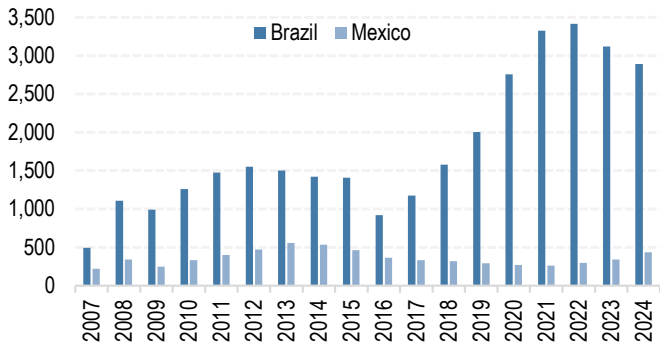
$ USD in million



Source: Bloomberg FInance L.P.

Figure 132: Historical Average Daily Traded Volume

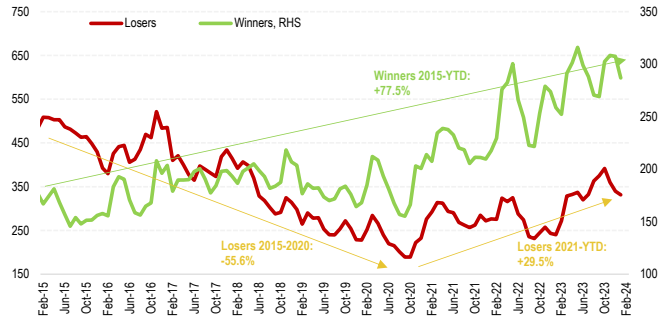
$ in million USD



Source: Bloomberg Finance L.P. Note: considers all stock exchanges in each country.

Figure 133: Liquidity Winners & Losers

ADTV, $ in million



Source: Bloomberg Finance L.P. and J.P. Morgan estimates. Sample includes 57 listed names, including eight ADRs. 24/57 names in our sample have grown in terms of ADTV in the past 5Y vs. 20/57 in the past 10Y. Historical losers' ADTV was -56% between 2015-20 but has increased +30% since 2021. In contrast, winners' ADTV is +77% in the past 10Y. For 2023, 33/57 names saw an increase in liquidity vs. the 5Y average. Sample includes 57 listed names, including eight ADRs.

In 1997, Mexico represented over 12% of the MSCI EM. 25 years later, Mexico's weight in the index has fallen five-fold to 2.6% as of 2024. Weight has fallen at an average annual pace of -0.2% for the past 20 years, second only to Argentina and Venezuela, which have practically disappeared from the index. In LatAm, Mexico has gone from weighing c.45% 20 years back, to 29% currently, losing over -0.4% each year on average. On the other hand, Brazil's weight in LatAm has gone from 34% in 2011 to over 59% currently.

Figure 134: Key Markets' Weights

	Current	5Y	10Y	25Y
China	27.5%	34.3%	21.8%	6.5%
Korea	12.0%	11.7%	14.7%	9.3%
Taiwan	17.0%	11.7%	12.6%	14.7%
India	17.7%	8.6%	7.1%	7.5%
EM ASEAN	5.1%	7.3%	10.1%	7.0%
LatAm	**8.6%**	**11.4%**	**16.5%**	**25.8%**
CEEMEA	6.7%	15.0%	17.1%	29.2%
Saudi	4.0%	2.6%	0.0%	0.0%
Mexico	**2.6%**	**2.3%**	**4.9%**	**9.6%**
Indonesia	1.7%	1.9%	2.8%	0.8%

Source: Bloomberg Finance L.P.

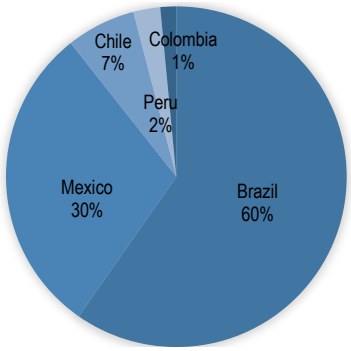
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 135: Selected Countries' Weight in MSCI (EM)

Countrys' Weights	
CHINA	27.2%
TAIWAN	18.3%
INDIA	17.8%
SOUTH KOREA	11.8%
BRAZIL	4.6%
SAUDI ARABIA	3.7%
SOUTH AFRICA	2.9%
MEXICO	2.5%
INDONESIA	1.6%
THAILAND	1.4%
MALAYSIA	1.4%
UAE	1.0%
POLAND	1.0%
TURKEY	0.8%
QATAR	0.7%
KUWAIT	0.7%
PHILIPPINES	0.6%
GREECE	0.5%
CHILE	0.5%
PERU	0.3%
HUNGARY	0.2%
CZECH	0.1%
COLOMBIA	0.1%
EGYPT	0.1%

Source: Bloomberg Finance L.P. Note: Any long-form nomenclature for references to China; Hong Kong; Taiwan; and Macau within this research material is Mainland China; Hong Kong SAR (China); Taiwan (China); and Macau SAR (China).

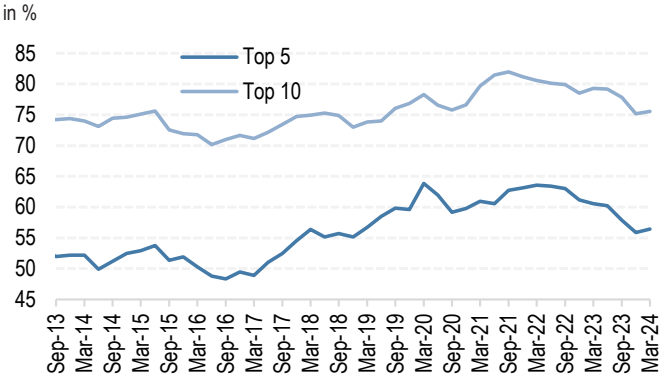
Figure 136: Countries' Weights in MSCI Latam that accounts for 8.1% of EM MSCI



Source: MSCI, Bloomberg Finance L.P.

- The ***Indice de Precios y Cotizaciones (IPC)***, the benchmark index of the Mexbol, is composed of 35 stocks weighted by free-float-adjusted market cap and adjusted for traded volume and liquidity. Individual weight in the index is capped at 25%, while the weight of the top five stocks cannot exceed 60%. The index is maintained by S&P and adopts its methodology for sampling and rebalances. Rebalances take place twice a year, in June and December, the first trading day after each month's third Friday ("effective date"). Resampling is also done twice per year, in March and September.
- The ***MSCI Mexico Index*** is also widely used but mostly by international investors. It includes 23 companies, and weights are also calculated using free-float-adjusted market cap. One important difference is each index's stance on the FIBRAs (Mexican REITs) as MSCI takes them into consideration for the index's sample while the IPC doesn't, as they are domestically not considered equities but structured products.

Figure 137: Total Weight in IPC from Top 10 and Top 5 Companies



Source: Bloomberg Finance L.P.

The Mexican equity market is highly concentrated, though a bit less so than in the past. The top five companies of the MSCI Mexico make up 56% of the index, down from its historical high of 73% in 2004. The top 10 companies in Mexico currently represent 76% of the index's market cap, though in 2012 they represented 88%.

Figure 138: MSCI Mexico Top 10 Constituents

Ticker	Weight in Index	Market Cap ($ in billion)	3m ADTV *($ in million)*
GFNORTEO MF	13.7	27.5	54.2
FEMSAUBD MF	12.2	25.2	35.8
WALMEX* MF	10.9	21.1	69.7
GMEXICOB MF	10.5	18.4	28.4
AMXB MF	9.7	17.6	72.9
CEMEXCPO MF	6.1	13.4	37.1
GAPB MF	3.9	6.3	19.6
ASURB MF	3.2	6.2	10.3
BIMBOA MF	2.8	5.7	14.6
GFINBURO MF	2.7	5.6	6.5
TOTAL	**75.8**	**147.1**	**349.1**

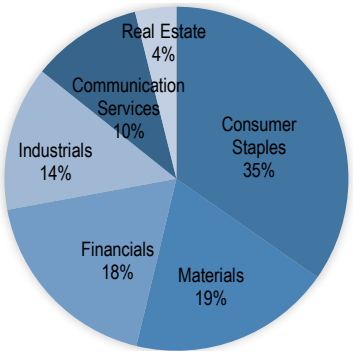
Source: MSCI, Bloomberg Finance L.P.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Sector-wise, Mexico is largely perceived as a defensive market. In terms of the market's composition, 50% of the weight of the MSCI Mexico is in defensive stocks (including Consumer Staples, Telecom, and Real Estate). The MSCI Mexico's return beta to EM is 0.5, below Brazil's 0.7. However, measuring Mexbol's returns beta to MSCI EM (i.e., excluding currency effect), the beta is much lower at 0.3. This is due to the currency's liquidity and continuous use as a hedge for other EM positions.

Figure 139: Sector Composition of the MSCI Mexico

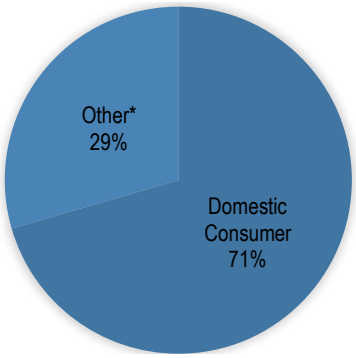
% of total weight



Source: MSCI and Bloomberg Finance L.P.

The index is not a good representation of the economy due to globalized companies. Domestic stocks exposed to the local consumer represent +71% of the Mexican index, including in this classification Telecom Media, Consumer Staples, Consumer Discretionary, and Financials, while domestic consumption (public + private) represents ~70% of GDP. For Mexico's GDP, on a sector basis, the largest weights are Services and Manufacturing, which represent 68% and 14% of the MSCI, respectively, and 63% and 17% of Mexico's GDP. However, only 64% of the index's revenue is generated locally, making it significantly exposed to external cyclicality.

Figure 140: MXMX Exposure to the Domestic Consumer



Source: MSCI, Bloomberg Finance L.P. Note: Other* includes industrial and basic materials.

Figure 141: GDP vs. MXMX Breakdown

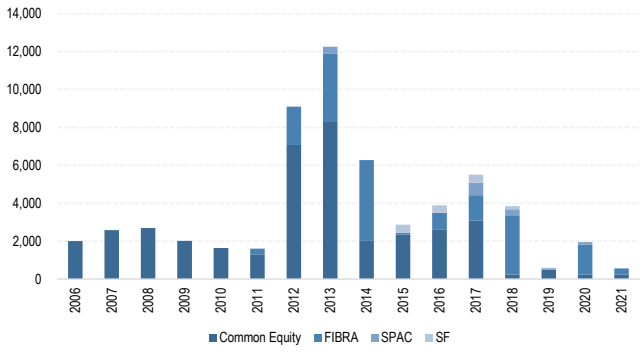
	Weight in GDP	Weight in MSCI
Manufacturing	20.8%	20.5%
Wholesale Retail	9.5%	12.2%
Real Estate Services	9.5%	3.9%
Retail	9.4%	10.6%
Transportation & Storage	6.8%	8.7%
Construction	5.5%	1.1%
Taxes	5.4%	0.0%
Mining	4.0%	11.7%
Financial Services	3.8%	18.3%
Educational Services	3.7%	0.0%
Primary Activities	3.5%	0.0%
Government	3.5%	0.0%
Health Services	2.4%	0.0%
Business Administration Services	2.1%	2.6%
Lodging & Food Preparation	2.0%	0.0%
Professional Services	2.0%	0.0%
Mass Media	1.8%	10.4%
Other Ex. Government	1.8%	0.0%
Utilities	1.5%	0.0%
Corporate Services	0.6%	0.0%
Leisure	0.4%	0.0%

Source: INEGI and MSCI.

Mexico has not had any IPOs in the past two years. Prior to that, total equity issuance (including follow-ons) in Mexico averaged $3.0bn per year since 2006. 2012 and 2013 were the strongest years on record, with the former recording over $9 bn and the latter $12.3bn. These record amounts were driven by large follow-on offerings by Santander, Banorte, and FUNO. Equity issuance dried up in 2019 but recovered in 2020 but mainly from follow-ons.

Figure 142: Equity Issuance in Mexico by Type of Issuance

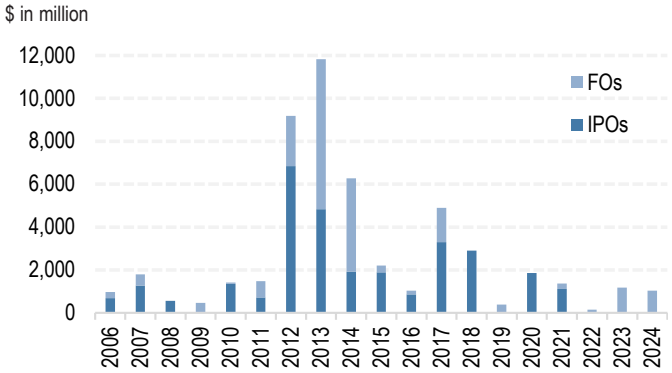
$ in mn



Source: Bloomberg Finance L.P. SF = CKDs + CERPIs.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 143: Equity Issuance in Mexico by Type of Offering



Source: Bloomberg Finance L.P. BMV annual reports. Note: data as of May 2024.

***FIBRAs*: In Mexico, real estate trusts are called FIBRAs (Fideicomiso de Inversión en Bienes Raíces).** Mexican REITs are obliged to invest at least 70% of their assets in real estate and pay out at least 95% of non-taxable earnings as dividends or capital reimbursements. The FIBRA market has grown significantly after Fibra Uno's IPO in 2011. They've represented 35% of the total equity issuance since then, with 2013 and 2014 being the most active years, followed by 2018. Currently 22 FIBRAs are actively trading in the Mexican market, including six FIBRA Es, which have a total market cap of Ps$128.5 bn.

FIBRA Es are a new investment vehicle designed by the Ministry of Finance with its main structure derived from the Mexican REIT (FIBRA) and designed to be an MLP-like vehicle. FIBRA Es seek to foster investments in strategic sectors of the Mexican economy. The array of assets that FIBRA Es can own is large and focused on infrastructure development, including assets in activities established in the Hydrocarbon Law (excluding fuel stations), electricity generation, transmission and distribution, roads and railways, transportation systems, port facilities, civil airdromes, and telecommunication networks.

Figure 144: REITs Listed in Mexico

	Mkt Cap ($ in bn)	3m ADTV ($ in mn)	GLA Breakdown
FUNO11 MM	5.7	0.4	55% Industrial, 27% Retail, 10% Office, 8% Others
FSITES20 MM	5.3	0.0	100% Telecom Infrastructure
FIBRAPL MM	5.2	0.2	100% Industrial
EDUCA18 MM	4.0	0.0	94% Education, 6% Offices
FIDEAL20 MM	2.3	0.0	100% Highway Infrastructure
SOMA21 MM	2.0	0.0	90% Retail, 10% Mixed use
DANHOS13 MM	1.9	0.0	71% Retail, 29% Office
TERRA13 MM	1.8	0.1	100% Industrial
FVIA16 MM	1.8	0.0	100% Highway Infrastructure
FCFE18 MM	1.8	0.0	100% Electric Infrastructure
FMTY14 MM	1.5	0.0	86% Industrial, 12% Offices, 1% Retail
FIBRAMQ MM	1.5	0.0	87% Industrial, 13% Retail
FEXI21 MM	1.4	0.0	100% Energy and Infrastructure
FNOVA17 MM	0.8	0.0	100% Industrial
XFRA22 MM	0.5	0.0	100% Infrastructure
FIHO12 MM	0.4	0.0	100% Hotels
FHIPO MM	0.4	0.0	100% Residential Mortgages
FPLUS16 MM	0.3	0.0	39% Industrial, 36% Retail, 16% Offices, 6% Education, 4% Residential
FINN13 MM	0.3	0.0	100% Hotels
STORAGE MM	0.3	0.0	100% Self-Storage
FSHOP13 MM	0.2	0.0	100% Retail
FIBRAUP MM	0.1	0.0	100% Industrial
FIBRHD15 MM	0.1	0.0	51% Retail, 31% Industrial, 13% Education, 5% Offices
FMX23 MM	0.0	0.0	100% Highway & Telecom Infrastructure

Source: Company data, Bloomberg Finance L.P.

- ***What Are Master Limited Partnerships (MLPs)?*** MLPs are pass-through entities, with any profit or losses moving directly to unitholders (similar to shareholders) before income taxes are applied and are publicly traded partnerships (PTPs) that trade on exchanges just like regular corporations. MLPs appeared in the US in 1987 after the federal government grew concerned about losing potential corporate tax revenues to publicly traded partnerships and established a pass-through tax treatment to entities generating at least 90% of income from "qualifying" sources. MLPs are managed by a general partner that typically holds a 2% ownership stake. The limited partners own the remaining 98% stake, and the limited partnership interest is typically the portion of the entity that is publicly traded. When going public, the limited partnership structure is often divided into common and subordinated units. The subordinated units are usually held by the entity ("Sponsor" or "Parent") that creates the MLP and can provide a level of distribution insulation for common unitholders; subordinated units do not receive any payments until common unitholders receive a specified minimum quarterly distribution (MQD). Subordinated units will convert to common upon certain distribution thresholds.

CKDs: In 2009, the Ministry of Finance, through the CNBV, created the capital development certificates (CKDs in Spanish). **CKDs are publicly listed financial investment vehicles designed to help channel funding to growing sectors and activities while bringing flexibility and new portfolio diversification alternatives to investors.** Especially created for pension funds, these instruments give *Afores* the ability to invest in greenfield projects to extract more value from the

investment and usually have a five-year life span.

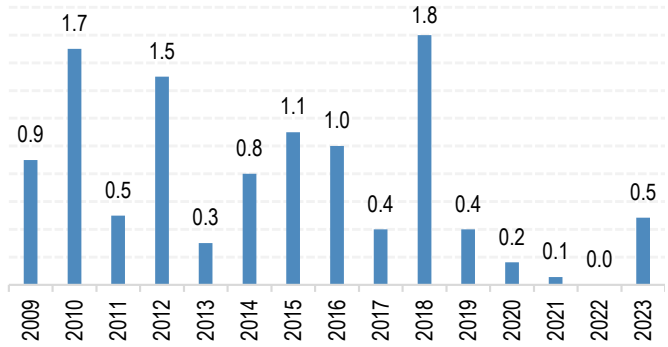
CKDs aim to fund specific projects or the acquisition of one or more companies in the infrastructure, real estate, mining, general business, and technology sectors. Projects can be either greenfields or brownfields. They are not subject to ratings, as they are not debt securities, but they do need to meet disclosure requirements as set forth by Mexican financial authorities.

Profits from this type of instrument come from revenue generated or from selling greenfield projects. They do not pay any dividends and do not guarantee the return of principal. As such, CKDs could be more broadly classified as equity investments.

There are two types of CKDs: (1) Type A, funding capital resources destined to a variety of investment vehicles, such as private equity funds; and (2) Type B, funding capital resources destined to one investment vehicle, such as a specific infrastructure project.

Figure 145: CKD Listings

$ in billion



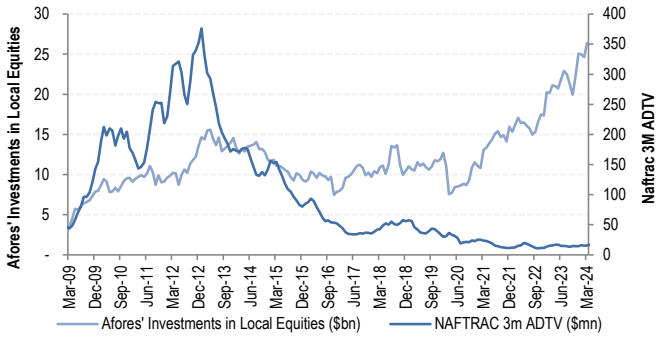
Source: MSE.

CERPIs: Late in 2015 CERPIs were introduced in the Securities Market Law through their inclusion in the Sole Circular for Issuers (CUE, in Spanish). **CERPI stands for Investment Projects Fiduciary Securitization Certificates and allow Afores to finance private investment projects**. Unlike CKDs, which only allow for domestic investment projects, CERPIs can invest up to 90% of the trust abroad. With CERPIs, new investments do not require approval from the Technical Committee or Holders' Meeting, and holders must have at least 25% of the outstanding to be able to appoint members to the Technical Committee. This puts them closer to global standards for private equity vehicles vs CKDs. Nonetheless, they still have to be publicly listed in order to ensure transparency.

More recently, the Mexican market has witnessed the rise of SPAC issuances. Despite the lack of specific regulation, the most relevant difference between a Mexican SPAC and its US counterpart is the treatment of the resources raised for tax purposes. In Mexico, one-third of resources are accounted for as equity while the rest is taken as contribution for future capital increase, to be capitalized once an investment is realized. Hence, these two-thirds are treated as debt for tax purposes, which reduces the burden on future reimbursements in the event no investment is made by the SPAC.

ETFs: **The two most important ETFs tracking Mexico indices are the NAFTRAC (locally traded, 3mADTV = $16.7 million) and the EWW (3mADTV = $139.2 million).** The EWW is the oldest ETF and consists of 44 securities. It is rebalanced quarterly and tracks the MXMX net total return index in USD. The NAFTRAC ETF holds 34 names and is mostly traded by local investors as it tracks the local Mexbol index. Before 2010, Afores were not allowed to invest directly in stocks. Hence, their only alternative for getting exposure to domestic equities was through the NAFTRAC ETF. Its current average daily traded volume represents barely 5% of what it was in January 2013 at c.$380mn.

Figure 146: Afores' Investments in Local Equities vs. Naftrac's 3m ADTV



Source: CONSAR, Bloomberg Finance L.P. Note: left axis $ in bn. Right axis $ in mn.

Figure 147: Targeted Local ETFs Listed in the MSE

$ in thousands

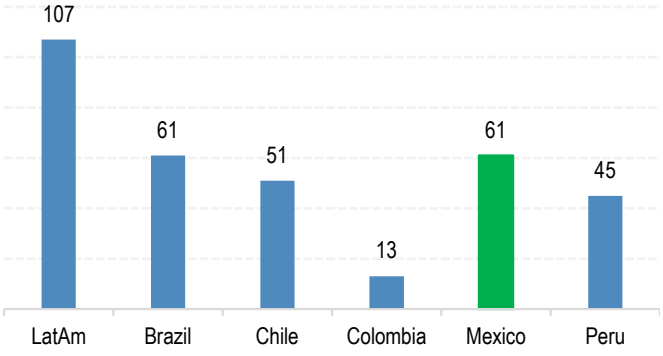
Name	3m ADTV
NAFTRAC MM	22,982
ESGMEX MM	4,227
MEXTRAC MM	1,907
IVVPESO MM	1,326
UDITRAC MM	1,177
CETETRC MM	1,126
M10TRAC MM	1,059
VMEX MM	901
FIBRATC MM	293
DLRTRAC MM	203
M5TRAC MM	117
ANGELD MM	63
QVGMEX MM	43
GENIUS21 MM	25
PSOTRAC MM	7
SMARTRC MM	0
CHNTRAC MM	0

Source: Bloomberg Finance L.P.

The World Bank argues that several studies have shown a close relationship between protection to minority shareholders and economic growth and lower cost of capital. However, minority protection was not really included in the Mexican Securities Market Law until 2006. Before these amendments, Mexico ranked 125th in the Strength of Investment Protection Index. Today, it ranks 61st, in line with Brazil but below Chile, Colombia, and Peru.

Figure 148: Protecting Minority Investors

Rank, out of 213 countries



Source: World Bank, Doing Business Report.

Minorities' rights for publicly listed companies, as established in the Securities Law, include:

1. 10% stake requirement to have a right to participate in the election of a Board member, call for a new Board meeting, or postpone a vote by the Board;
2. 5% stake requirement to take civil action against Board members and directors;
3. 20% stake requirement to legally oppose resolutions;
4. When a third party is interested in acquiring over 30% of the ordinary stock of a publicly listed company, the transaction has to be made through a public offering;
5. A company can issue preferred stock limited to this being less than 25% of the company's total free float;
6. If a related party holding a stake in a company decides to increase or decrease its participation by 5% or more (simultaneously or in several operations), the related party should make its intentions public.

Other specific minority protection rights, such as "tag along" and "drag along," are discretionary to each company's bylaws.

As per the Securities Law in Mexico, information requirements for listed companies are:

- Financial statements for themselves plus associated companies (those that contribute 10% or more to earnings or total assets) – annual and quarterly.
- Minutes from the last board meeting.
- Monthly credit reports (for financials).
- Any communication with shareholders (divestitures, capital increases, etc.) with at least six days' notice prior for these events.
- Transactions by people with access to privileged information (company officers, owners of 10% of more, related parties, etc.).
- Investors who directly or indirectly own 10% or more of listed shares, board members, and other company officers need to disclose transactions on a company's shares that surpass 1mn UDIs ("Unidad de Inversión" in Spanish) in any given quarter.
- Investors who directly or indirectly accumulate, whether acquired in one or several transactions, a total share of 10% or more but less than 30% of listed shares need to disclose this publicly.
- Related parties who directly or indirectly increase/decrease by 5% their share in the company, through one or several transactions, are obliged to disclose this publicly, as well as stating whether they intend to acquire a significant influence in the company (or increase it).
- Companies need to send an annual report to the CNBV, including information on corporate ownership: officers with 1% or more ownership, investors with 5% or more, and top 10 investors, even if their participation doesn't exceed 5% individually.

- Companies need to reveal any "relevant events" that could move the stock price (list is not exhaustive and only applies to equities; there are many other examples specific to trusts and other financial structures):
  - Changes to company's corporate/ownership structure or any change to its statutes;
  - Any relevant new contracts or ventures or the termination of these, for both the company or any person with significant influence associated with it;
  - Any relevant new contracts or ventures or the termination of such with key suppliers, clients, or governments;
  - Their participation on biddings or auctions and the corresponding result;
  - New suppliers and clients or substitution of former ones;
  - Creation or cancellation of business lines, products, or services;
  - Information related to patents, brands, licenses, or franchises; Information related to concessions;
  - Force majeure events;
  - Tapping into new markets or exiting existing markets;
  - Expansion plans, including updates on these;
  - Information on input supply;
  - Government resolutions that impact their business (concessions, permits, authorizations, subsidies, etc.);
  - Bankruptcy declaration or termination of a bankruptcy process;
  - New technologies or new resources discovered;
  - Termination or incorporation of new partners or shareholders that have influence on the company's operations;
  - Outsourcing of services;
  - Hedging strategies for regular course of business;
  - Any change to the company's capital structure and changes to its buyback fund;
  - Atypical transactions or price movements on the stock;
  - Any change in the ownership structure that impacts the current control scheme, as well as any related-party transaction on 5% or more of its shares;
  - Acquisition or divestiture of financial derivatives that represent a significant share of other company's stock;
  - Rating changes;
  - Listing on foreign exchanges;
  - Market makers;
  - Any significant deviation from previous financial guidance for a company's results;
  - New loans or financing for a significant amount as a % of the company's equity;
  - Changes to key assets;
  - Any change on guarantees that represent a significant % of the company's equity;
  - Any significant deviation from the original planned used of resources in the event of an issuance;
  - Liability restructuring or defaults or lack of payment of liabilities;
  - Any situation that alters the financial structure or results of the company, impacting liquidity, solvency, profitability, and asset utilization, as well as any change to their accounting policies for the previous exercise;
  - Any changes to dividend policy;
  - The loss of at least 25% of shareholders' equity;
  - Any significant change to employee participation sharing and/or option program;
  - Auditing results or legal processes (various);
  - Change in regulations or laws that impact the company's operations;
- Companies need to report if same-day buybacks surpass 1% of float. If they intend to buy over 3%, then they need to inform in advance through a public offering

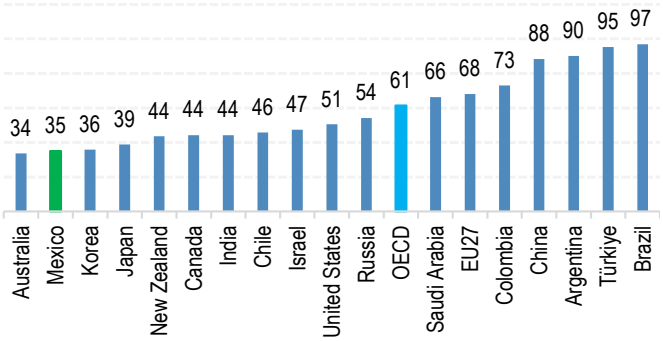
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Pension Funds

Mexico's pension fund system is government mandatory and privately funded by private sector companies. The system as we know it today was kick-started in 1997, leaving behind the pay-as-you-go system. The Afores (pension fund system managers) administer the pensions from the private sector through specialized investment funds for retirement (SIEFORES). Afores are supervised by the CONSAR ("Comisión Nacional del Sistema de Ahorro para el Retiro" in Spanish). While the **the system has one of the lowest contribution rates at a global level, the Reform passed in 2020 will improve the net replacement rate to 65% from 35% prior to the reform.** Mexico's contribution rate ranks 26th among the 38 OECD members out of 36 with available data.

Figure 149: Net Replacement Rates across OECD

in %

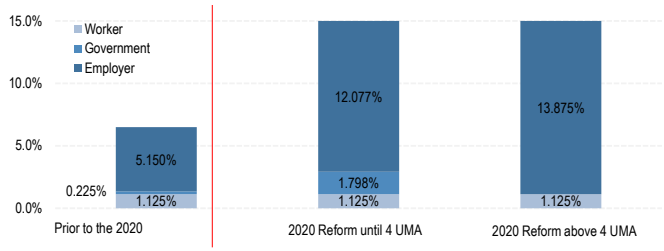


Source: OECD.

An important Reform was passed in 2020 that aims to considerably increase net replacement rates. Prior to 2023, the year that the new Reform became effective, employers contributed 5.15% of their employees' base salaries, while employees complemented these savings with 1.125% of their base salaries, while the remaining 0.225% came from the government. So the total contribution will increase to ~15% by 2030 with a ~1pp increase every year until then. Also, the reform caps the fees pension funds can charge to 0.57% of AUM from 1.0% and raises the sum workers are guaranteed to receive and lowers the number of weeks workers must have paid in to claim retirement benefits.

Figure 150: Individual Contributions to Afores' Account

% of total contribution



Source: Banxico and IMSS. Note: Government contribution ranges from 8.724% for workers on minimum salary to 1.798% for workers earning 4 UMA. Employers' contribution ranges from 5.150% for workers on minimum salary to 13.875% for workers earning +4 UMA. Monthly UMA as of 2023: Ps3,154.

Impact of 2020 Reform changed

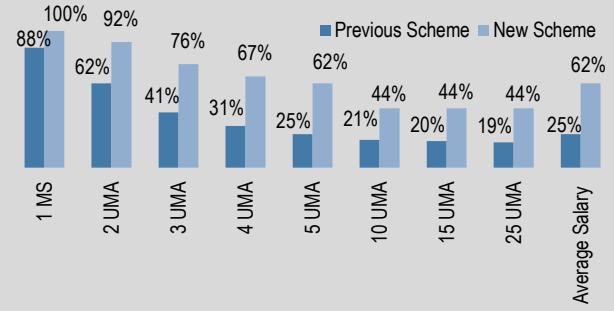
We estimate AFOREs AUMs will more than double by 2030, increasing from Ps5,050 bn in YE22 ($259 bn assuming MXN at Ps19.50) to Ps12,500 ($625 bn assuming MXN at Ps20.00). This means total AUM would represent ~30% of GDP, from the current 17%. Our model assumes GDP growth of 1.8% from 2025 onward, average inflation converging to Banxico's target of 3.0%, and an average return rate of 6.0%. In terms of inflows, we estimate they will triple by 2030 assuming wages grow at an annual average rate of 3.0% and formal workforce grows by 2.0% on average. Hence, we see inflows reaching Ps1,420 bn ($71 bn assuming MXN at Ps20.00) from Ps444 bn in YE22 ($21 bn assuming MXN at Ps19.50). Considering outflows have historically been ~60% of total inflows and a rough estimate of the number of accounts leaving each Siefore in this time frame, annual net flows to the AFOREs could reach Ps600 bn ($30 bn) from the current Ps234 ($12 bn).

Assuming allocation to local equities remains steady at ~7%, this would mean an incremental Ps536 bn ($27 bn) entering the market in the next seven years vs. an estimated Ps336 bn ($17 bn) without the reform. However, we see a strong case for allocation to increase to the 9-10% it had back in 2013, meaning an additional Ps250-375 bn ($13-19 bn) vs. the base case at 7%. This means the incremental amount entering the market would stand at Ps786-911 bn ($39-46 bn) from 2023-2030. Given the size of the market's free float, this increased allocation would likely push valuations upward but likely at the expense of liquidity, unless new options become available on the market. The good news is that the latter possibility does not look so far-fetched

given one of the primary arguments of companies for not doing IPOs in Mexico is the market's low valuation.

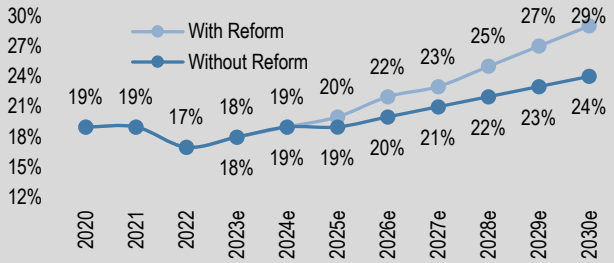
Figure 151: Replacement Rate by Salary Range

Retirement Gross Income/Pre-retirement Gross Income



Source: Banxico and IMSS. Note: Supposes an annuity calculated for a person who contributed 1,250 weeks, who claims their pension at the age of 65 with a life expectancy post retirement of 15 years, assuming that their last salary is equal to their average contribution salary throughout their working life and with a net real rate of return on their individual account of 3%. Monthly UMA as of 2023: Ps3,154.

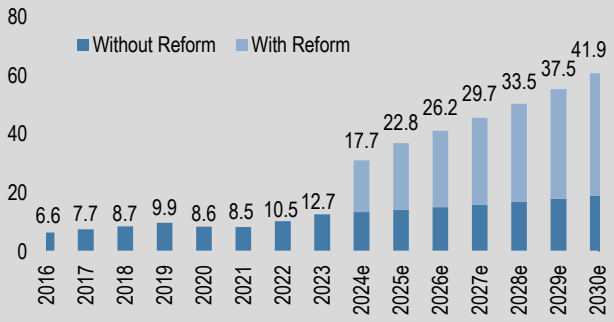
Figure 152: Projected AUMs with and without Reform as a % of GDP



Source: Consar and J.P. Morgan estimates. Note: Our model assumes GDP growth of 1.8% from 2025 onward (JPMe for 2023/24 are at 3.2% / 2.1%), average inflation converging to Banxico's target of 3.0% (JPMe for 2023/24 are at 4.6% / 3.8%), and an average return rate of 6.0%.

Figure 153: Projected Yearly Net Flows to Afores

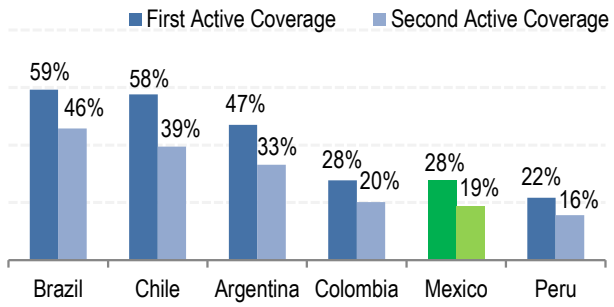
$ in billion



Source: CONSAR and J.P. Morgan estimates. We assume a fixed MXN of Ps17.0 for all years starting in 2024.

Contributions are divided between funds available for retirement and funds available for old age unemployment benefits. Additionally, the employer is responsible for contributing 5% of the workers' base salaries for housing. Afores are responsible only for booking these resources. The funds are managed by the housing institutes of Infonavit or Fovissste.

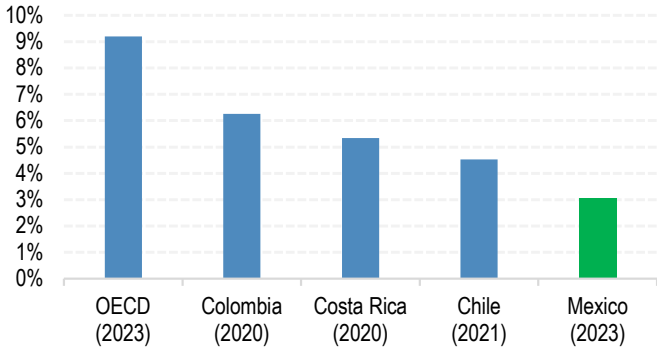
Figure 154: Pension Fund Coverage in Latam Countries



Source: J.P. Morgan, CONSAR, World Bank. Note: First Active Coverage refers to total number of active contributors as a % of labor force. Second Active Coverage refers to total number of active contributors as a % of working age population.

Pension spending in Mexico has lightly increased over the last couple of years but is still modest compared to select LatAm countries. Total spending on pension benefits in Mexico represents 1.2% of GDP, while the average among LatAm countries is 4.8%.

Figure 155: Pension Spending as a % of GDP Latam

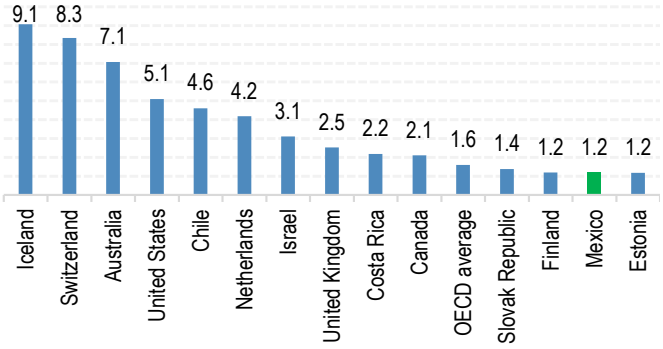


Source: OECD. Latest year available in parenthesis. Note: refers to public and private benefit cash expenditures.

Pension funding remains a concern as contributions to pension plans remain only at 1.2% of GDP, while OECD countries' average stands at 1.6%. Efforts from the Mexican pension authority (CONSAR) have pushed to incentivize workers to save voluntarily in their retirement funds, yet the success of this retirement savings strategy has been very limited, and voluntary savings represent only 0.05% of the total

AUM of the Mexican pension fund system.

Figure 156: Total Contributions to Pension Funds as % of GDP

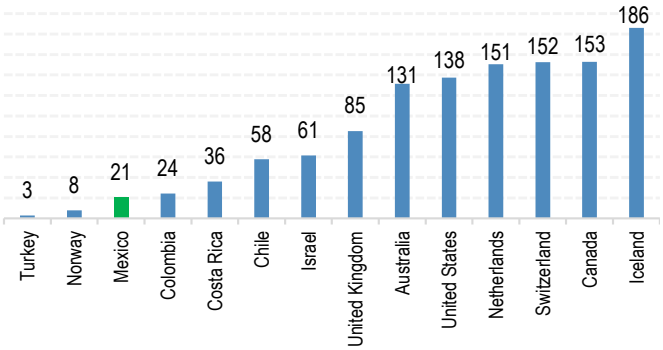


Source: OECD.

Pension fund assets at 21% of GDP but could reach 30% by 2030. As the latest OECD report "Pensions at a glance" has indicated, Mexico ranks even lower than the same report for 2018, falling four positions for pension fund assets as a % of GDP. Mexico ranks way below Canada, the US, and Chile but above countries like Spain, France, and Belgium. Bear in mind that the 2020 Pension Reform will help to bring this ratio to ~30% by 2030.

Figure 157: OECD Countries Pension Fund Assets as a % of GDP

in %



Source: OECD Pensions at a Glance 2023.

There are currently 10 AFOREs in the Mexican pension fund system, which manage a total of $359 billion assets as of Mar 2024. The top five manage 76% of all assets with Banorte XXI being the largest. Assets under management have gone from representing nearly 5% of nominal GDP in 2003 to 19.1% in 2023. Net inflows from contributors to local equities averaged $1.9bn yearly from 2016-2023, and AUMs have grown at an average rate of 10.4% annually in local currency terms in the last 10 years.

Figure 158: AUM, Accounts, and Fees by Afore

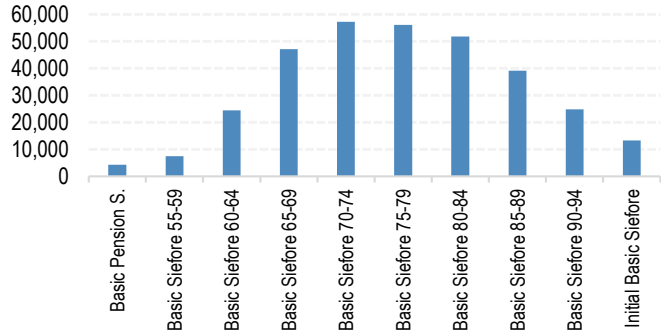
Afore	AUM (Ps bn)	Accounts (in mn)	AUM / account	Fees (in %)
XXI Banorte	1,173	8.5	138	0.57
Profuturo	1,080	7.6	143	0.57
Citibanamex	939	10.0	94	0.57
Sura	926	7.8	119	0.57
Coppel	455	14.4	32	0.57
PensionISSSTE	402	2.2	181	0.53
Principal	331	2.6	127	0.57
Azteca	273	17.8	15	0.57
Invercap	256	2.1	124	0.57
Inbursa	160	1.1	147	0.57
Total	**5,994**	**73.9**	**81**	

Source: CONSAR. Note: AUM / account is Ps in thousands.

Each AFORE is divided into 10 sub-groups called *"Siefores Generacionales"* based on the workers' date of birth in order to better balance returns, risk, and volatility as they approach retirement. Hence, instead of them jumping from one SG to another as they age, the SG adjusts its investments' regime according to the workers' respective group. The main benefit from this is that workers are now able to realize gains from long-term investments throughout their work-life. Back in 2008, the asset allocation model had two fund assets and was modified to offer five funds instead, with different risk/return asset allocations, the number of funds was then reduced to four in 2012 as the highest risk return profile funds were merged. Then in 2015 the "0" fund was created, focusing on people close to retirement. The system consisted of five funds, with 0 being the most conservative and 4 with higher risk exposure.

Figure 159: AUM by Siefore Generacional

USD mn



Source: CONSAR.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 160: Main Differences Between Last and Actual PF Regime

	Last PF Regime	Actual PF Regime
# Weeks to Claim Retirement	1,250	750 up to 1,000 in 2031
Mandatory Contribution	6.50%	15%
Retirement Age to Claim Benefits	60	65
Afore Fees	0.81%	0.57%
Replacement Rate	30%	55.5% up to 70% in 2030

Source: Mexican Government.

The CONSAR (Comisión Nacional del Sistema de Ahorro para el Retiro) defines a list of 10 asset classes in which AFOREs can invest and diversify their portfolios, with each asset class having a maximum allocation percentage determined by the group age of each SG.

Figure 161: Siefore Generacional's Investment Regime

Asset Class Limits	Basic Initial	Basic 90-94	Basic 85-89	Basic 80-84	Basic 75-79
Equity	60%	59%	56%	54%	50%
Securitizations	40%	39%	36%	34%	31%
Structured Securities	20%	20%	20%	20%	20%
REITs	10%	10%	10%	10%	10%
Commodities	5%	5%	5%	5%	5%
Foreign Currency	30%	30%	30%	30%	30%

Source: CONSAR.

Figure 162: Siefore Generacional's Investment Regime (continuation)

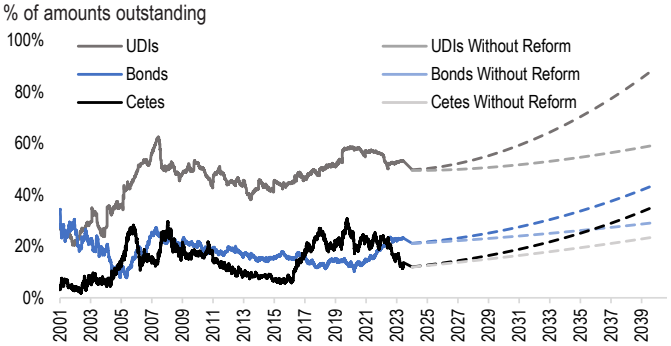
Asset Class Limits	Basic 70-74	Basic 65-69	Basic 60-64	Basic 55-59	Basic Pension
Equity	45%	36%	22%	15%	15%
Securitizations	27%	24%	21%	20%	20%
Structured Securities	18%	15%	12%	10%	10%
REITs	9%	7%	6%	5%	5%
Commodities	5%	5%	5%	5%	5%
Foreign Currency	30%	30%	30%	30%	30%

Source: CONSAR.

Afores' investment diversification includes (1) fixed income securities at 66% of total AUMs, such as government debt, corporate debt, and foreign debt; (2) equities at 20.6% (12.8% being foreign equities); structured products and others.

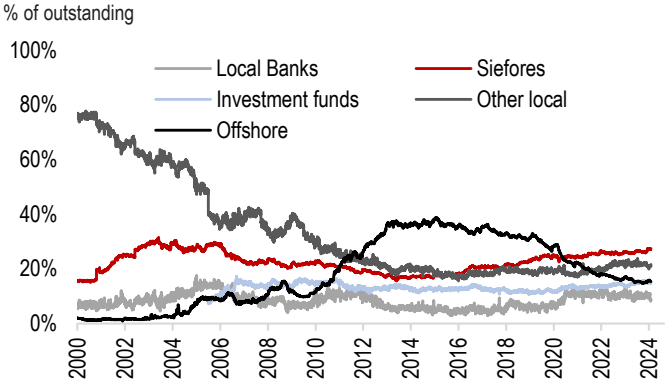
Afores have become a large holder of government debt, making them the main local price setter, especially for long-dated bonds. The Afores now hold 27% of total government debt vs only 17% in 2012 and also hold 23% of total long-term government bonds. Throughout the years, the bulk of Afores' fixed rate government bonds portfolio has been concentrated in maturities longer than 10 years. Over the last decade, Afores hold an average of 56% of the Mbono with 10-20 year maturities and another 30% of those with over 20-year maturities, which make them a source of steady demand for duration in the Mbono market. The government has $112 bn of outstanding stock in Cetes, $195 bn in UDI bonds, and $262 bn in Mbonos being the largest.

Figure 163: Afores' Holdings as a Percentage of the Amounts Outstanding of Cetes, UDIs, and Bonds



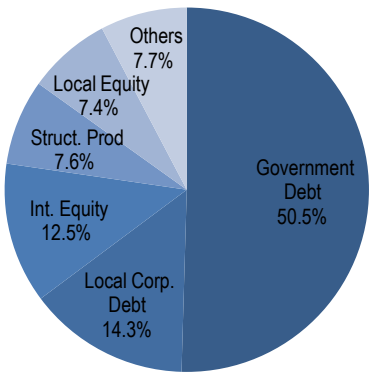
Source: J.P. Morgan, Banco de Mexico, CONSAR.

Figure 164: Holdings of Mexican Government-Backed Paper by Type of Investor



Source: J.P. Morgan, Banco de Mexico. Note: includes Cetes, Bondes D, Bondes F, Bondes G, Udibonos and Mbonos. "Other local" refers to local household and corporate holdings. "Offshore" refers to investors other than residents.

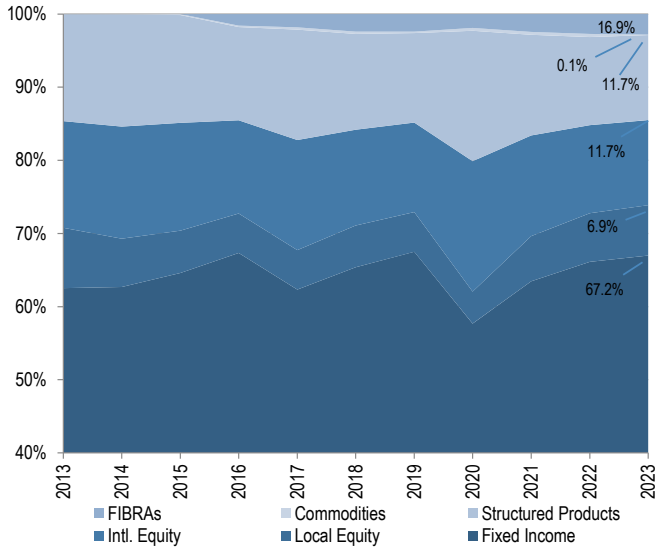
Figure 165: Afores' Current Investment Breakdown



Source: CONSAR.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 166: Afores' Historical Investment Mix Breakdown

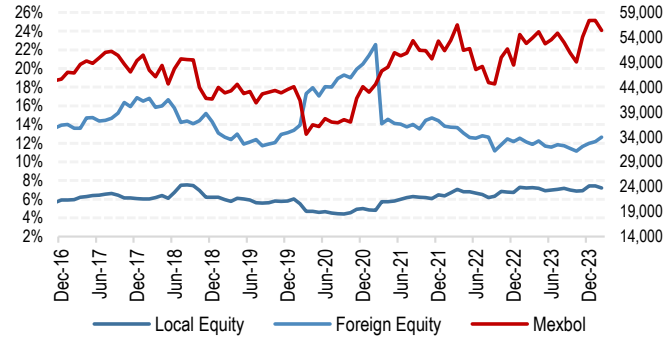


Source: CONSAR.

Equity allocation has ranged from 13-26% of total AUM (today at 20.6%) but with local equities getting a larger share within equities since 2020.

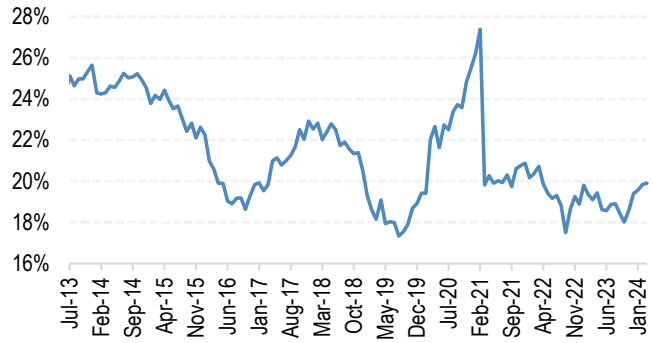
Figure 167: Local and Foreign Exposure to Equity vs. Mexbol

% of Total Portfolios



Source: Bloomberg Finance L.P., CONSAR.

Figure 168: Historical Evolution of Afores' Investments in Equities as % of Total AUM

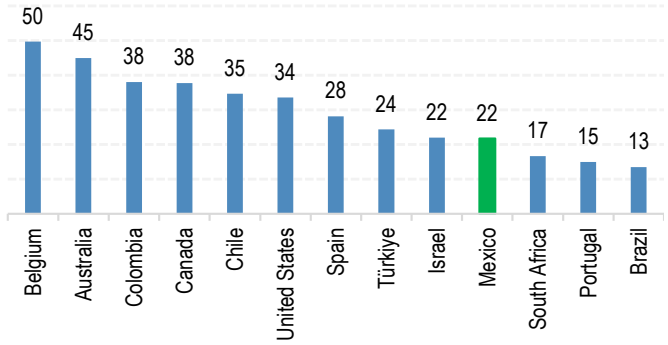


Source: CONSAR.

Equity exposure lags global standards. The Mexican pension regulator (CONSAR) has gradually opened the system to encourage greater equity allocation, as previously the system would only allow equity ownership through ETFs or trackers. However, reforms introduced in 2010 that allowed Afores to purchase stocks paved the way for more optionality in equities. Afores also have authorization to externally contract third parties to manage equity assets, e.g., Mexican equities. Of the 10 Siefores Generacionales, the lowest permitted allocation to equities ranges from 15% for the least risk averse to up to 60%. Afores investment regime allows for alternative assets investment in instruments such as credit-backed structured vehicles including different private equity vehicles like CKDs and CERPISs to up to 20% of assets.

Figure 169: Equity Exposure as a % of Total Assets vs Other Countries

in %



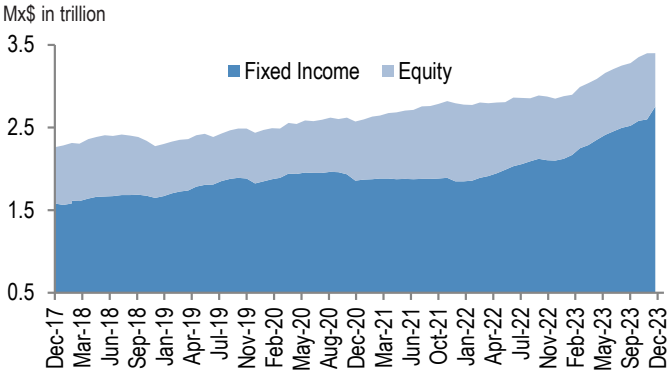
Source: OECD Pensions at a Glance 2023.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Mutual Funds

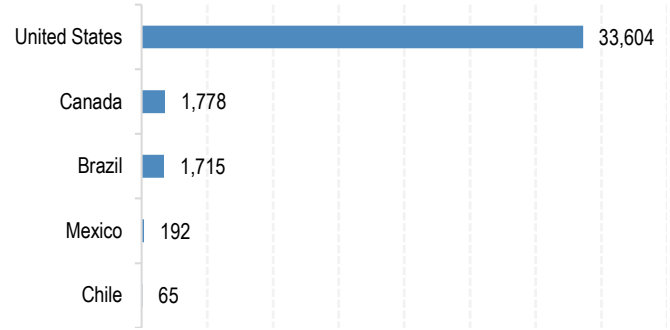
The mutual fund industry has grown consistently in the past 15 years and currently has $200 bn in AUM (Jan 2024), which is less than half the size of the Afores' and is only about one-tenth the size in Brazil and is mostly invested in fixed income at 81% of total AUM while the rest is equities. Mutual funds' AUM have grown at a 10% CAGR annually during the past 15 years, with equity-focused mutual funds at 17%. The breakdown by type of fund varies significantly among countries in the continent with the US industry leaning toward equity funds and Brazil more toward fixed income products. Canada's is balanced/mixed, while for Mexico and Chile money market funds dominate the industry.

Figure 170: Mutual Funds AUM Historical Evolution. Equities Account for 20% (2/3 being foreign equities)



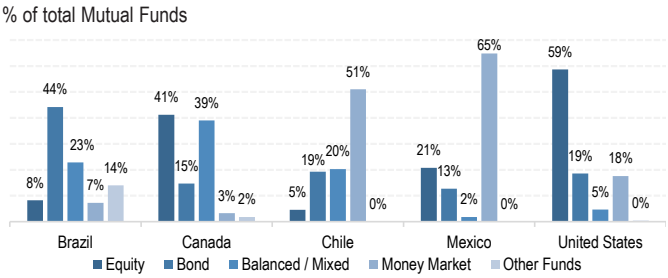
Source: J.P. Morgan, CNBV, AMIB.

Figure 171: Total Net Assets of Mutual Funds



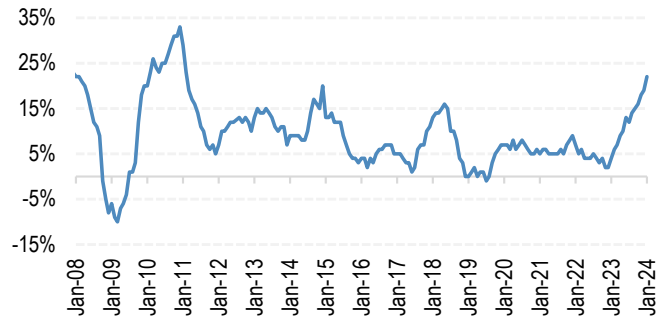
Source: Investment Company Institute (ICI). Note: Data as of 4Q23.

Figure 172: Mutual Funds Investment Breakdown



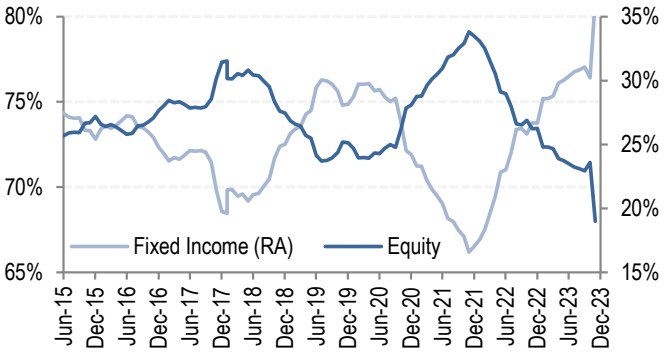
Source: ICI. Note: Data as of 4Q23.

Figure 173: Mexico's Mutual Funds AUM Growth Rate



Source: CNBV.

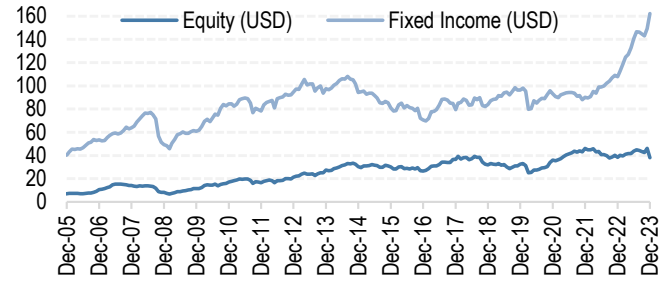
Figure 174: Equity vs. Fixed Income Funds as % of Total System AUM



Source: J.P. Morgan, CNBV, AMIB. Left axis = Fixed Income %; Right axis = Equity %.

Figure 175: Mutual Funds - Equity vs. Fixed Income Investments

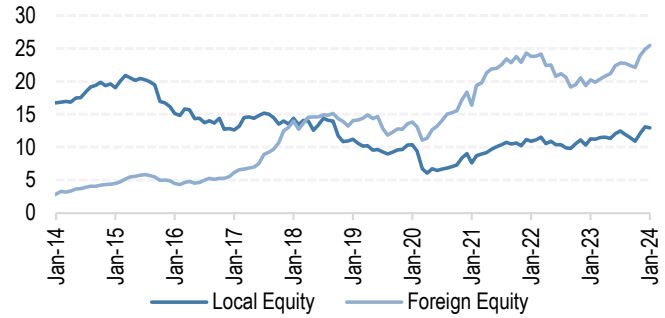
$ in billion



Source: J.P. Morgan, CNBV, AMIB.

Figure 176: Local vs. Foreign Equity Investments

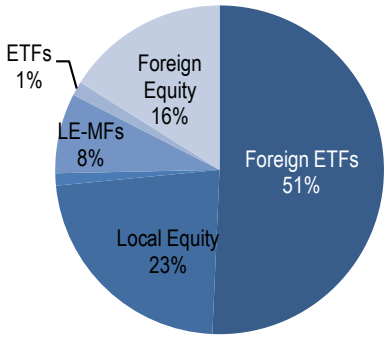
$ in billion



Source: J.P. Morgan, CNBV, AMIB.

Figure 177: Mutual Fund Equity Investment Breakdown

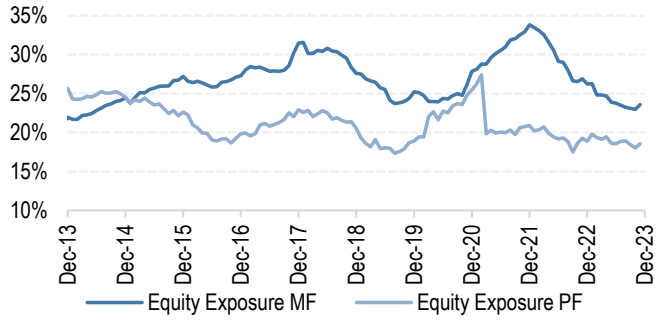
% of total equity exposure



Source: J.P. Morgan, CNBV, AMIB.

Figure 178: Pension vs. Mutual Fund Total Equity Exposure

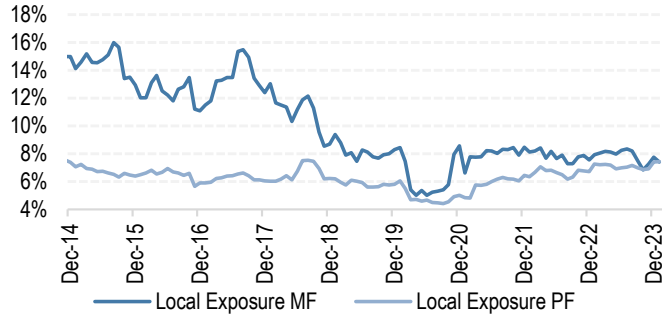
% of total portfolios



Source: J.P. Morgan, CONSAR, CNBV, AMIB.

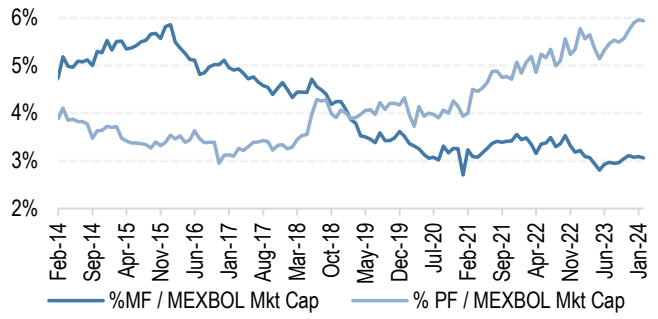
Figure 179: Pension vs. Mutual Fund Local Equity Exposure

% of total AUM



Source: J.P. Morgan, CONSAR, CNBV, AMIB.

Figure 180: Pension Funds own ~6% of Mexbol's Market Cap vs ~3% from Mutual Funds



Source: J.P. Morgan, CONSAR, CNBV, AMIB, Bloomberg Finance L.P.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Sectors

Manufacturing

Following the end of the "Bracero Program," under which temporary work permits were issued to Mexican laborers to allow them to work in the US from 1942 to 1964, the Mexican government had to strengthen the productive sector through mechanisms that attracted enough foreign direct investment (FDI) to generate sufficient labor demand to satisfy the growing supply. Thus, in 1965 it initiated the Border Industrialization Program, which significantly transformed Mexico's manufacturing sector. This program promoted the establishment of assembly ("maquila") plants along the northern border and led to the construction of the country's first industrial parks in 1966.

Offshoring appeared very soon after, with the spread of assembly programs in Mexico (the so-called "twin-plant programs") by which the manufacturing of a product was carried out in plants located in two different countries, complementing each other in the manufacturing process. This industrial phenomenon began with the automotive and electronics industries, which began to entrust the production of some auto parts or components to certain plants located in Mexico. As a result, Mexico implemented a series of free trade agreements during the 1980s and 1990s that were the cornerstone of Mexico's manufacturing sector boom.

Figure 181: Mexico's Free Trade Agreements

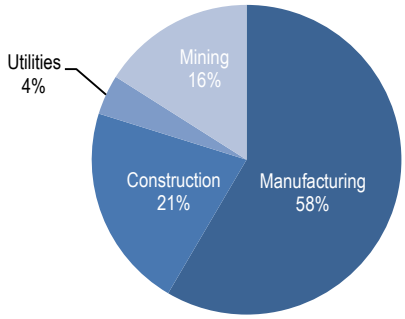
Type	Name	Partners	Effective Date
FTA	USMCA	Canada, U.S	7/1/2020
FTA	TLC - Panama	Panama	7/1/2015
FTA	TLC - Centroamerica	Costa Rica, El salvador, Guatemala, Honduras, Nicaragua	7/1/2013
FTA	TLC - Peru	Peru	2/1/2012
FTA	TLC - Japan	Japan	4/1/2005
FTA	TLC - Uruguay	Uruguay	7/15/2004
LP	Mercosur (Macro)	Argentina, Brasil, Uruguay, Paraguay	7/13/2003
LP	Mercosur (Automotive Sector)	Argentina, Brasil, Uruguay, Paraguay	12/31/2002
LP	Mexico - Brasil	Brasil	12/31/2002
LP	Mexico - Peru	Peru	3/9/2002
FTA	TLC - AELC	Iceland, Lichtenstein, Norway, Switzerland	10/1/2001
FTA	TLC - Israel	Israel	7/1/2001
FTA	TLC - North Triangle	El Salvador, Guatemala, Honduras	3/15/2001
LP	Mexico - Cuba	Cuba	2/13/2001
FTA	TLCUE	E.U	7/1/2000
LP	Mexico - Paraguay	Paraguay	4/17/2000
FTA	TLC - Chile	Chile	8/1/1999
LP	Mexico - Argentina	Argentina	4/19/1999
LP	Mexico - Panama	Panama	11/23/1998
LP	Mexico - Ecuador	Ecuador	9/18/1998
FTA	TLC G-2	Colombia	1/1/1995
FTA	TLC Costa Rica	Costa Rica	1/1/1995

Source: SICE.

Today, the industrial sector in Mexico represents, on average, 29% of the country's GDP. Industrial production is then divided into four sub-sectors: manufacturing, construction, mining, and utilities production, with manufacturing by far the largest of the four. In 2023, manufacturing represented 17% of GDP or 58% of total industrial activities, ranking second just behind commercial activities.

Figure 182: Industrial Production by Component

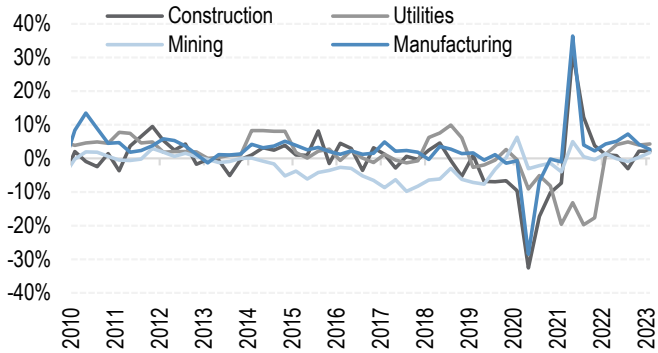
% of total



Source: INEGI.

Figure 183: Industrial Production Growth by Component, Historical

y/y

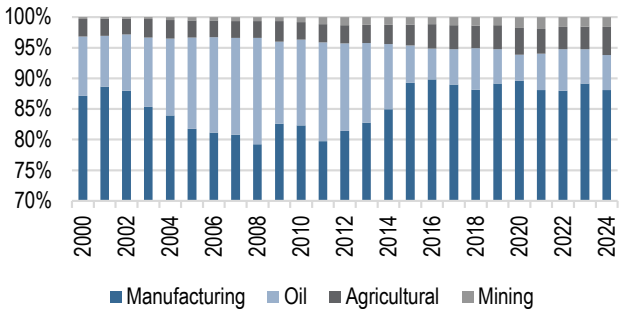


Source: INEGI.

88% of Mexico's exports come from the manufacturing sector (20% in 1980). Excluding oil, the share goes even higher to 94% of total exports. The industry has had stable growth in its annual exports for years, especially in the transportation sector, machinery equipment, and electrical devices.

Figure 184: Total Exports ($593 bn in 2023) Breakdown

% of total

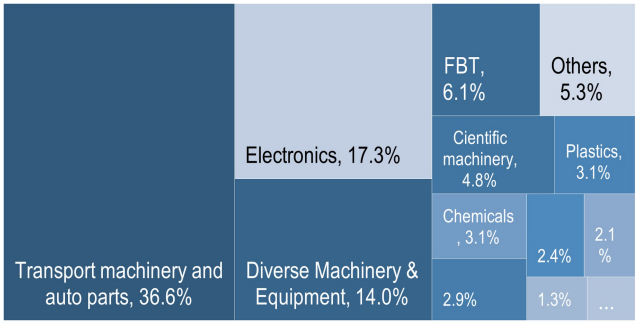


Source: INEGI.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Automotive manufacturing and electronics are the two most important export categories as together they reached $287 bn in 2023, representing 37% and 15% of total manufacturing exports, respectively. These two are followed by machinery equipment, food/beverage, and scientific machinery. Mexico's manufacturing encompasses a larger range of industries, including aviation and aerospace, medical devices, apparel and textile, and consumer product industries.

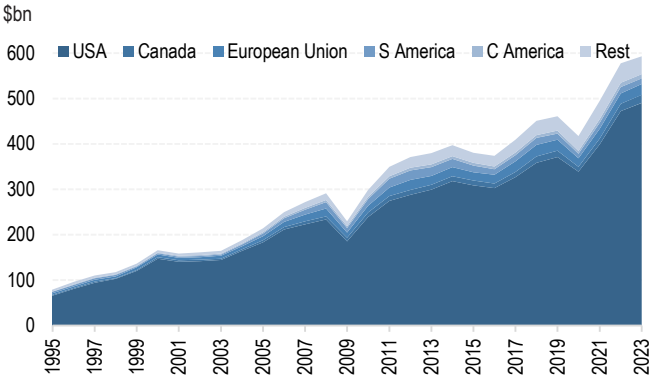
Figure 185: Manufacturing Exports ($287 bn in 2023) by Category
% of total



Source: INEGI.

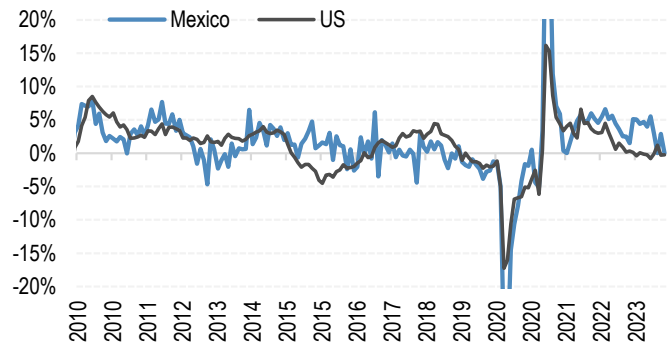
The US is Mexico's largest trading partner, accounting for 83% of total exports, previously driven by NAFTA and now the USMCA free trade agreement. In fact, Mexico's manufacturing production has always been linked to US industrial production, with a correlation of 58% from 1995 to 2010. That correlation has increased to 80% since 2010 even though last year it was only 0.4%. Additionally, as manufacturing booms in Mexico, trade at the Mexican border has grown significantly as well. The total value of US imports from Mexico increased 81% from 2011 to 2023, from $263 bn to $476 bn.

Figure 186: Mexican Exports by Country of Destination
$bn



Source: INEGI.

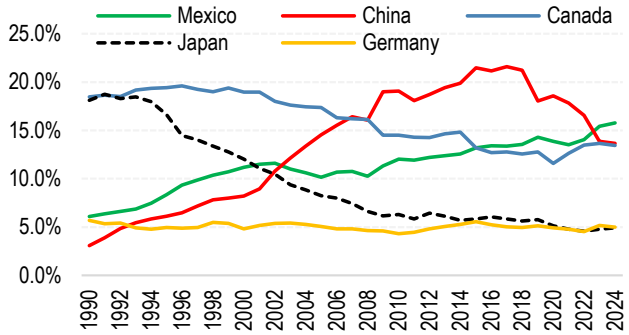
Figure 187: US & Mexico Industrial Production
y/y



Source: Bloomberg Finance L.P. Note: Mexico and the US had a large drop in the second quarter of 2020, reaching -31% and -17%, respectively, while in the second quarter of 2021 they had a large increase of 36% and 16% respectively.

Mexico is the United States's largest supplier of goods imports, surpassing China for the first time last year since 2003 when the latter entered the WTO. In 2023, Mexico represented 15% of the US's imports vs. China's 14%. China's share has been consistently decreasing since 2018 and has been redistributed among other Asian peers (4% average lost by China went to Taiwan 3% and Singapore 1%).

Figure 188: Historical Market Share of US Imports
% of total imports

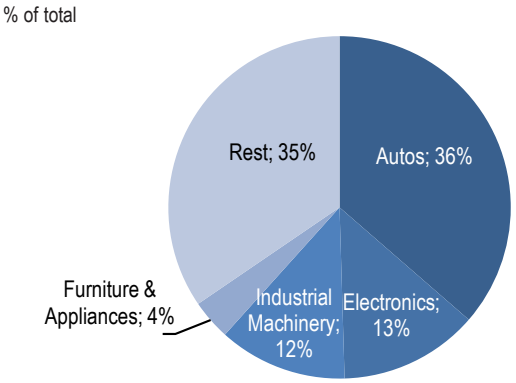


Source: US Census.

The US's top import categories from Mexico (2023) were auto parts ($65.3 bn), trucks ($50.7 bn), passenger cars ($42.2 bn), computers ($25.8 bn), and electric apparatus ($14.5 bn). Moreover, US imports of services from Mexico were an estimated $13,528 billion in 2023, 77% above 2009 levels and 107% above 1999 levels. Leading services imports from Mexico to the US were in the travel, transport, and technical services sectors.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

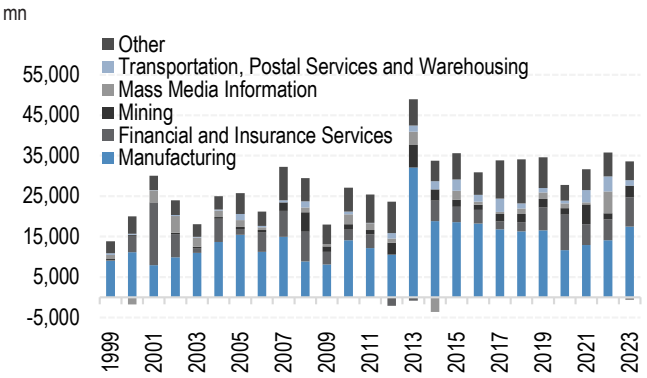
Figure 189: Mexico's Exports to the US by Sector



Source: US Census.

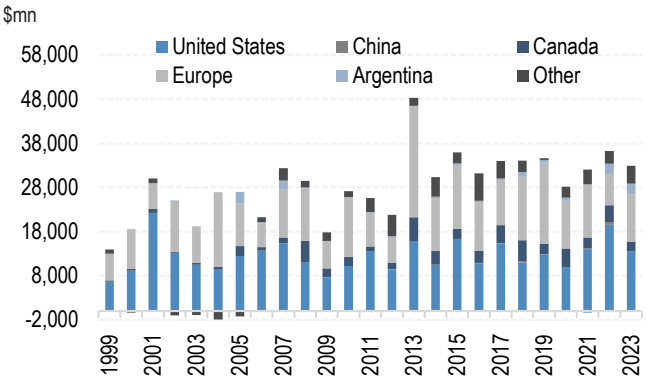
Manufacturing FDI represented 53.1% of the total in 2023, making it the most important category and amounting to $17.5 bn (+24.2% y/y). Mexico has seen important diversification in recent years, but it is still largely concentrated in the U.S. (41.1% of total). Asian peers have grown in share, namely South Korea and Japan, with other relevant countries now including Spain, Germany, Canada, and Argentina. As for China, while investments have become more relevant in recent years, it remains quite low at only 2% of the total.

Figure 190: Mexico's FDI by Sector



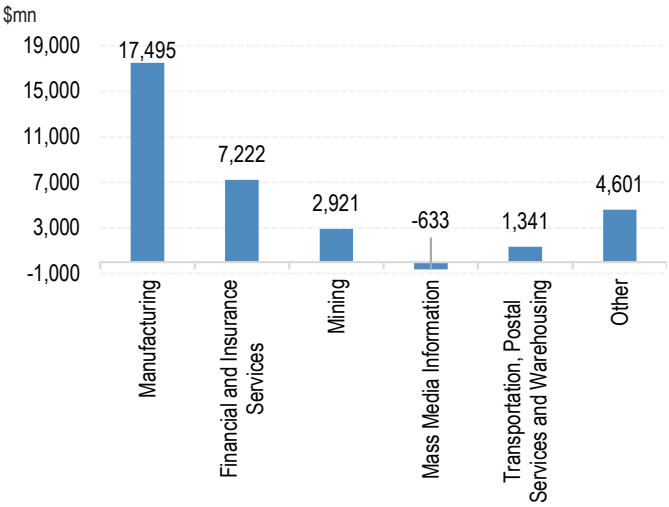
Source: Ministry of Energy.

Figure 191: Mexico's FDI by Country Breakdown



Source: Ministry of Economy.

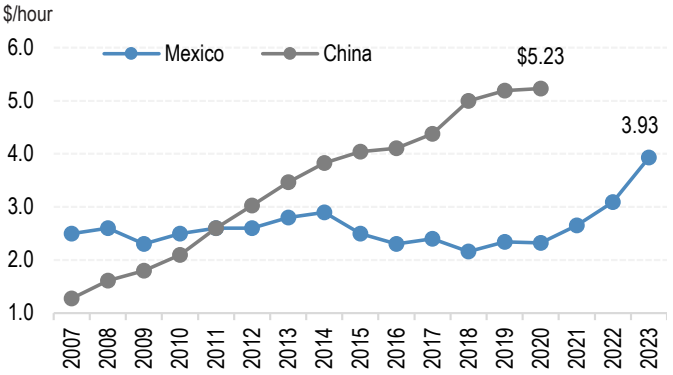
Figure 192: Mexico's FDI by Sector Breakdown as of 2023



Source: Ministry of Economy.

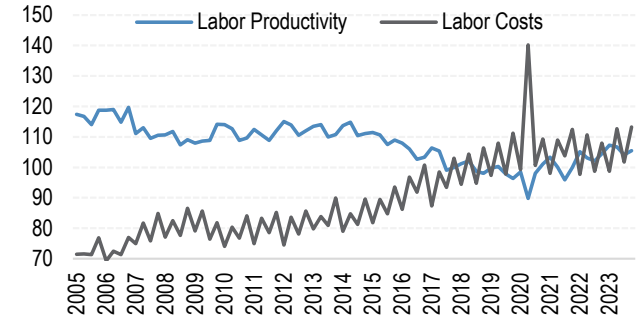
The trend in China's relative cost competitiveness to Mexico has reversed gradually. From 2014-2018, manufacturing wages in China increased while Mexico's remained mostly stable. However, after AMLO took office in 2018 and started raising the minimum wage, manufacturing wages followed suit.

Figure 193: Mexico vs. China Wages in the Manufacturing Sector



Source: INEGI.

Figure 194: Labor Productivity vs. Unitary Costs in Manufacturing

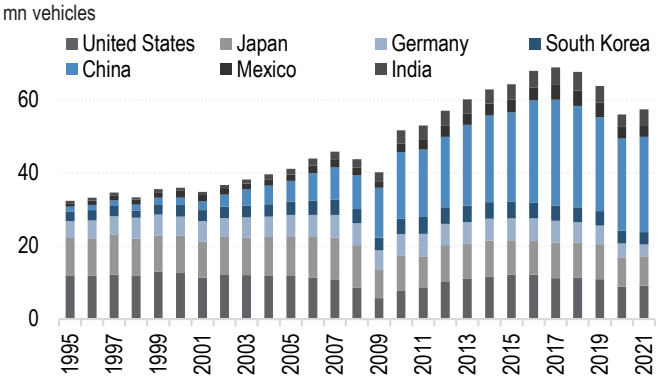


Source: INEGI. Note: based on hours worked.

Auto and Auto Parts

Automobile and auto parts represent Mexico's largest export (28% of total), contributing 21% of industrial GDP and 4% of total GDP as of YE23. As of 2020, the sector employed 180k people. Mexico is the world's seventh largest car producer, with over 77% of its production being exported to the U.S.

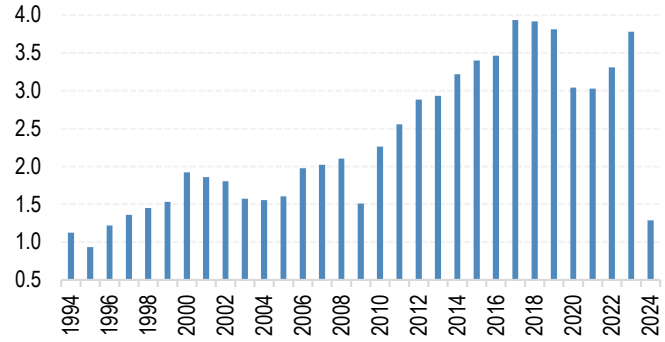
Figure 195: Motor vehicle production by country



Source: Bureau of Transportation Statistics.

Light vehicle production in Mexico has more than doubled since 1999, and since 2014 it has been relatively stable, ranging between 3mn and 4mn units per year. As of 2023 production was 3.78mn units (+14% y/y) and has been recovering after the contraction in 2020 where production reached only 3mn vehicles.

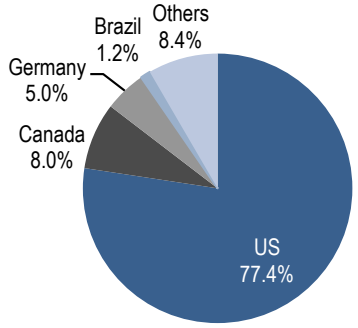
Figure 196: Historical Production of Light Vehicles in Mexico



Source: INEGI.

The majority of Mexican auto exports (85.4%) are bound for North America (US 77% and Canada 8%). Mexico auto exports in 2023 increased 16% y/y .

Figure 197: Mexican Auto Exports by Country

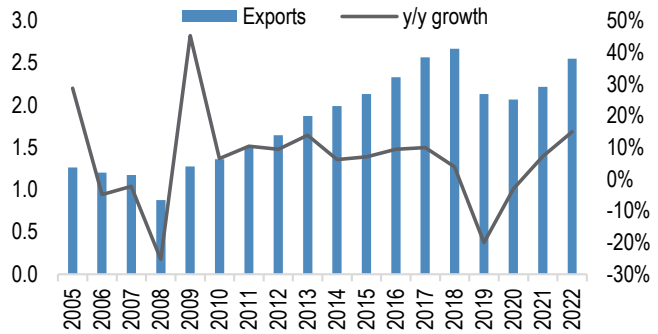


Source: AMIA.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 198: Light Vehicles Exports to the US

mn units, y/y growth



Source: INEGI.

The automotive industry received a total of $4.8 bn in FDI during 2023, representing 15% of the total FDI received and growing at a CAGR of 15% since 2010.

Figure 199: Auto Sector Largest FDI Announcements

Date	Company	Country of Origin	State	Amount ($ mn)
Sep-23	KIA	Korea	Nuevo Leon	6,000
Mar-23	Tesla	US	Nuevo Leon	5,000
Apr-23	Jetour	China	Aguascalientes	3,000
Dec-23	Pegatron y Wistron	Taiwan	Ciudad Juarez	2,000
Aug-23	Paramount	China	Coahuila	2,200

Source: Mexico Now.

Auto parts are produced mainly in the Northern and the Bajío region, which together account for 88% of the auto parts production (21% in the Northern region and 67% in the Bajío region).

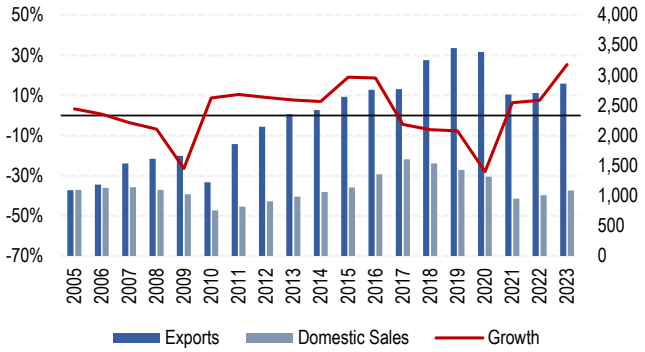
Figure 200: Vehicles and Auto Parts Production Geography

Source: AMIA.

Domestic auto sales rose 25% y/y during 2023 due to the recovery of the domestic market after facing three years of declining auto sales caused by supply issues stemming from the global economic slowdown following the Covid-19 pandemic, the increased costs of logistics, as well as a shortage of semiconductors.

Figure 201: Auto Production Sales and Exports

% growth yoy, thousand vehicles

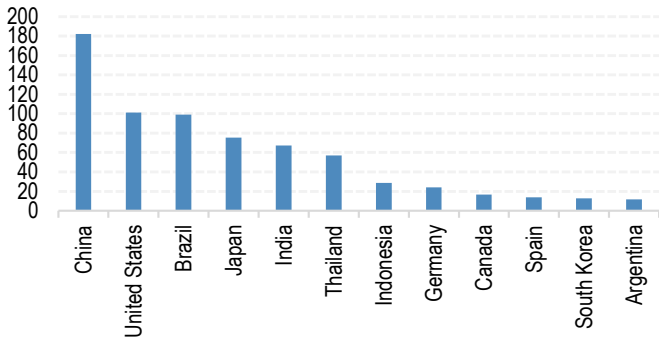


Source: AMIA.

The sector is constrained by cyclical and structural issues, namely a big used car market – having been flooded over the past 10 years by U.S. used car imports (now reduced) – high taxes of 16% VAT + 4% new vehicle tax and low credit penetration. Furthermore, the USMCA has recently been enabled, with tighter restrictions and strong regulatory measures in the manufacturing sector.

Figure 202: Imported Light Vehicles Sales in Mexico by Country of Origin

in thousand units



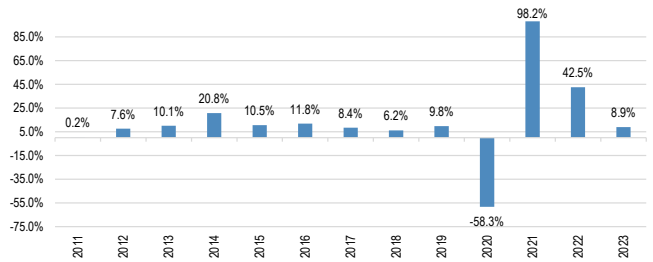
Source: Statista. Note: numbers for full-year 2022.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Tourism

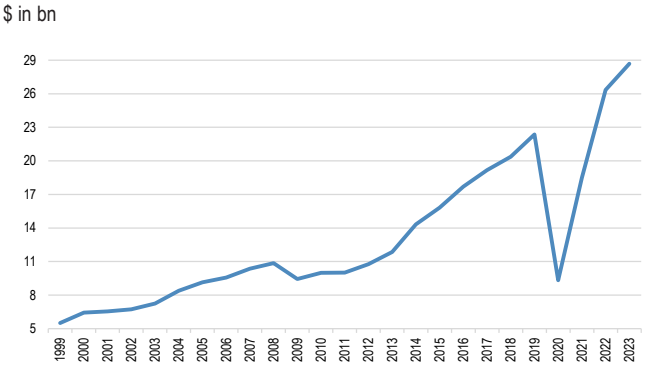
Tourism-related activities have grown strongly in Mexico, which is the sixth-most-visited country. Dollar inflows from tourism reached almost $30 bn last year and were +28% vs 2019 levels; Mexico is one of a few countries that have surpassed pre-pandemic levels but not necessarily in number of travelers. The country not only offers attractive beaches but is also has the most "World Heritage" sites by UNESCO in the world with 32.

Figure 203: Inflows from International Travel to Mexico



Source: Banxico.

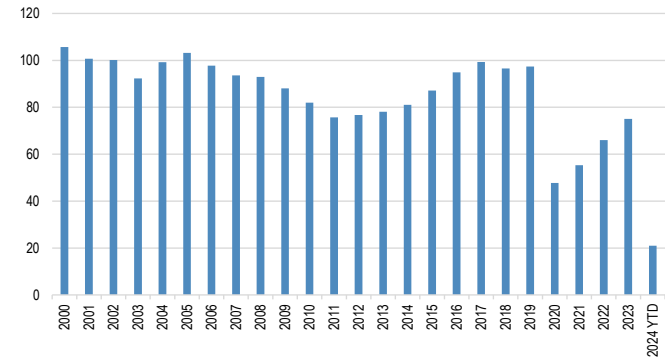
Figure 204: Money spent from International Travel to Mexico reached almost $30 bn in 2023



Source: Banxico.

In 2022 Mexico was the sixth most visited country, attracting 4.0% of total international travelers. Pre-pandemic Mexico was ranked seventh with 3.1% of total travelers. The most visited country was France, same as pre-pandemic, with 8.2% of total international travelers. The number of international travelers entering Mexico reached its maximum level in 2000 (105.7mn), followed by a downward trend that hit a trough in 2011 (75.7mn) and a continuous deceleration to date, with 2020 reaching 47.7 mn due to pandemic-related restrictions. The number of international travelers in 2022-23 is still below the peak at 66-75 mn but had a relevant y/y increases at +19.3% and +13.7%.

Figure 205: Number of International Travelers Entering Mexico



Source: Banxico.

Table 13: International Tourist Arrival by Country

	2019			2022		
	Ranking	Tourists mn	% of total	Ranking	Tourists mn	% of total
France	1	90.9	6.2%	1	79.4	8.2%
Spain	2	83.5	5.7%	2	71.7	7.4%
USA	3	79.4	5.4%	3	50.9	5.2%
China	4	65.7	4.5%	na	na	na
Italy	5	64.5	4.4%	5	49.8	5.1%
Turkey	6	51.2	3.5%	4	50.5	5.2%
Mexico	7	45.0	3.1%	6	38.3	4.0%

Source: UNWTO.

Mexico stands in ninth place in terms of $ receipts from international travelers and attracts 2.5% of total, a large improvement vs 2019 when it was ranked 16th with 1.7% of total receipts. France, the most visited country, does not have the largest amount of receipts. The US is the country with the highest $ receipts from international travelers with 12.2% of total worldwide , while France is third. Mexico's $ receipts were +42% y/y in 2022 and +9% in 2023, reaching $29 bn last year, thus largely recovering from 2020 levels of only $9 bn and above 2019.

Table 14: International Tourists Receipts and Ranking by Country

	2019			2022		
	Ranking	USD bn	% of total	Ranking	USD bn	% of total
USA	1	199.0	13.4%	1	135.2	12.2%
Spain	2	79.7	5.4%	2	72.9	6.6%
France	3	63.5	4.3%	4	59.7	5.4%
Thailand	4	59.8	4.0%	19	15.9	1.4%
UK	5	58.4	3.9%	3	67.6	6.1%
Mexico	16	24.6	1.7%	9	28.0	2.5%

Source: UNWTO.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Table 15: International Travelers by Regions

	Million Tourists				Receipts in USD bn				
	2019	2020	2021	2022	2018	2019	2020	2021	2022
Europe	742	240	301	595	570	584	249	328	553
Asia Pacific	360	59	25	102	437	441	126	91	157
America	219	70	82	156	338	331	125	140	255
Africa	69	19	20	47	38	39	15	18	33
Middle East	73	20	31	69	75	91	39	56	111
Total	1,464	407	458	969	1,457	1,486	554	632	1,109

Source: UNWTO.

Visitors residing in the US and Canada made up over 73% of international traffic to Mexico in 2023. Visitors from South America come mostly from Colombia and make up 3.4% of total visitors, followed by Argentina (1.5%), Peru (1.3%), and Brazil (1.0%), with an aggregated representation of 7.2% for those four countries. The dynamics in terms of where visitors are coming from has not changed much vs pre-pandemic, except for US Visitors, which have increased their representation by 7pp.

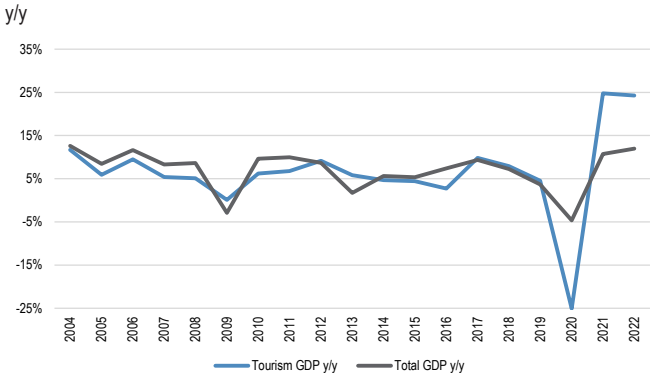
Table 16: International Tourist Arrivals by Country

	2019	2022	2023
USA	55.0%	63.1%	61.8%
Canada	12.0%	8.5%	11.3%
Colombia	3.0%	4.2%	3.4%
UK	2.0%	2.7%	2.3%
Spain	2.0%	1.8%	1.7%

Source: Datatur.

Tourism has a great correlation with GDP growth. For the period between 2015 and 2019, tourism activities grew at an annual average rate of 2.4%, while the whole Mexican economy expanded at a 2% average annual pace. But due to the overwhelming pandemic impacts, the 2020 tourism sector GDP was -25% y/y but has recovered and is now at peak growth rate.

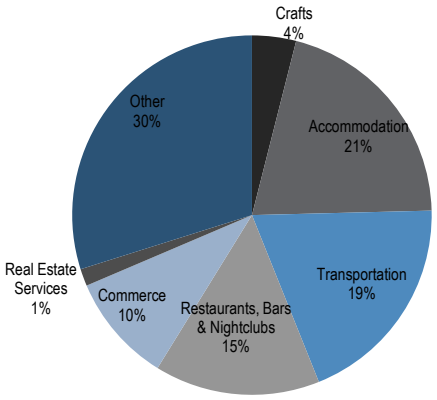
Figure 206: GDP Total vs Tourism



Source: INEGI.

Accommodation and transportation are the main revenue generators among tourism-related activities. During 2022, the former represented 21% of total tourism revenues while the latter represented 19% of the total; they are followed by restaurants, bars, and nightclubs and commerce with 15% and 10%, respectively.

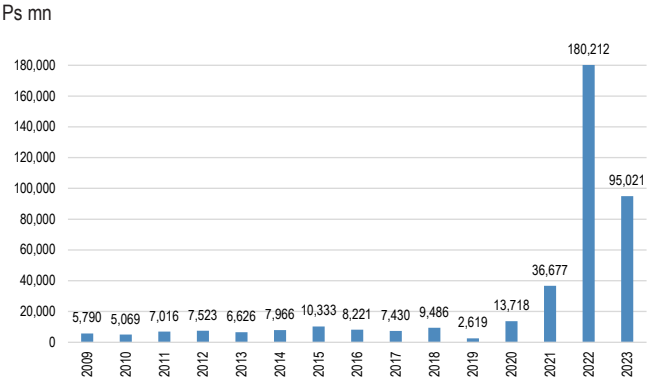
Figure 207: Sources of Tourism Revenue



Source: Datatur.

Tourism has become an important part of government expenditure in this administration but likely Infra related. The federal government spent Ps95 bn on tourism-related activities during 2023, on top of the extraordinary Ps180 bn in 2022, which are both equivalent to 0.23% and 0.50% of total expenditures vs 0.05% in 2020. These increases are likely related to the Mayan train construction.

Figure 208: Government Expenditure for Tourism



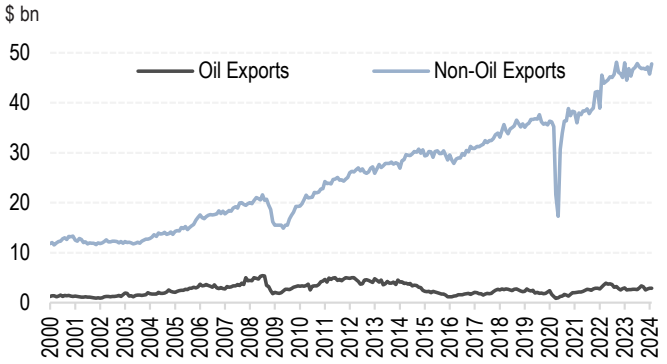
Source: SHCP.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Energy

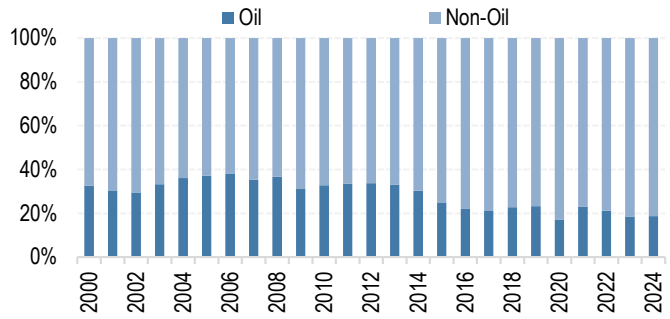
The Mexican energy sector has always been key for investors looking at Mexico given its historically large share of public revenues. However, oil exports only represented 5.6% of total exports in 2023, and they have consistently been coming down since 2008 as oil prices and vols dipped. According to 2024's budget, the government expects oil-related revenues (including taxes and transfers from the Mexican Oil Fund) to represent only 14% of total public revenues compared to 19% for 2023 and 23% in 2018.

Figure 209: Oil and Non-Oil Exports in Mexico



Source: INEGI.

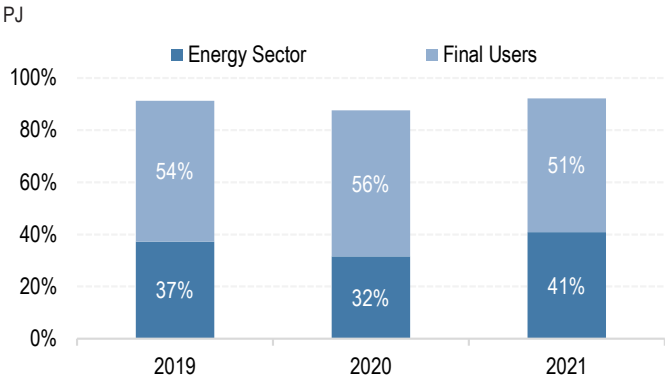
Figure 210: Energy Revenue Breakdown



Source: SHCP.

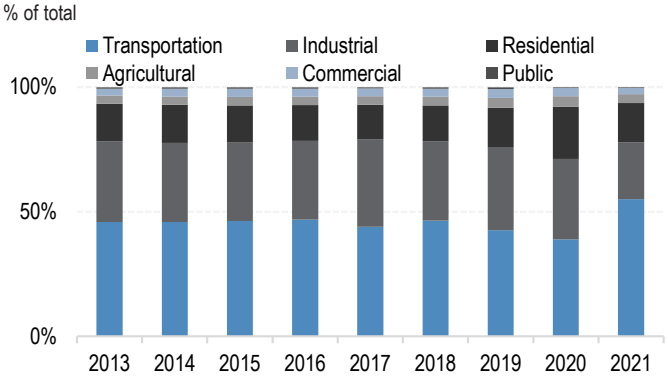
51% of total energy consumption in Mexico is destined for final users, while the rest is used within the energy sector for transformation and other self-consumption purposes. Among final users, transportation activities represent the largest share of energy consumption, followed by industrial and residential. This is in line with Mexico's export profile.

Figure 211: Total Energy Consumption in Mexico – Breakdown by Use



Source: SIE (SENER).

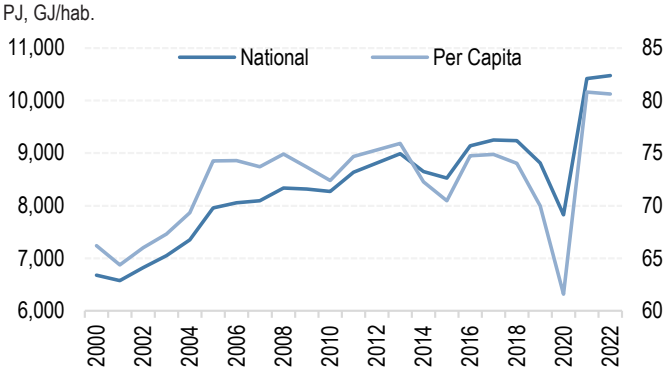
Figure 212: Mexico Energy Final Consumption by User



Source: SIE (SENER).

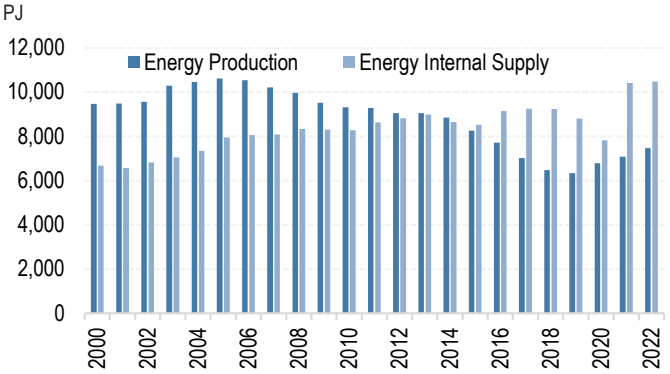
Mexico's total energy consumption has grown 57% since 2000, at an average annual pace of 2.3%, slightly above the average annual growth of Mexico's population (1.2%). Conversely, energy production has declined 21% since 2000.

Figure 213: Energy Consumption in Mexico – Total vs. per Capita



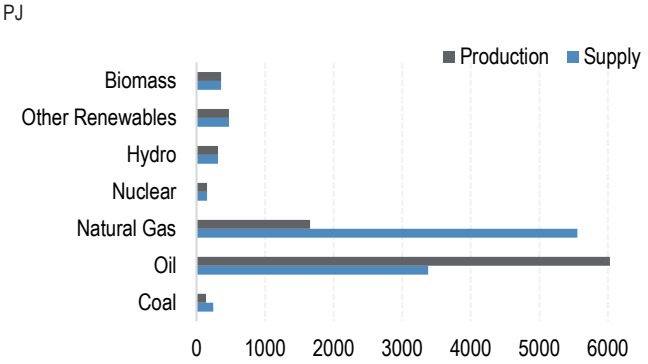
Source: SIE (SENER).

Figure 214: Energy Production vs. Total Supply (includes net imports) in Mexico



Source: SIE (SENER). Energy internal supply refers to total supply minus exports and maquila net exchange operations.

Figure 215: Total Energy Production vs. Total Energy Supply - Mix



Source: SIE (SENER).

The sector is largely controlled by the state through its productive companies. Pemex dominates in the hydrocarbon space (both upstream and downstream), while the CFE controls the electric industry. Hence, the majority of the data presented below for national purposes is also Pemex's data.

2013's Energy Reform & Recent Developments

In December 2013, Mexico amended its constitution to allow both local and foreign private investment into the energy sector for the first time since its nationalization in 1938. The reforms permit international energy companies to operate in Mexico and include provisions for competitive production sharing contracts and licenses. The measure increased the demand for technology and technical expertise for the development of upstream, deep water, and shale oil and gas fields. The energy reform also allows for greater private investment in retail fuel distribution.

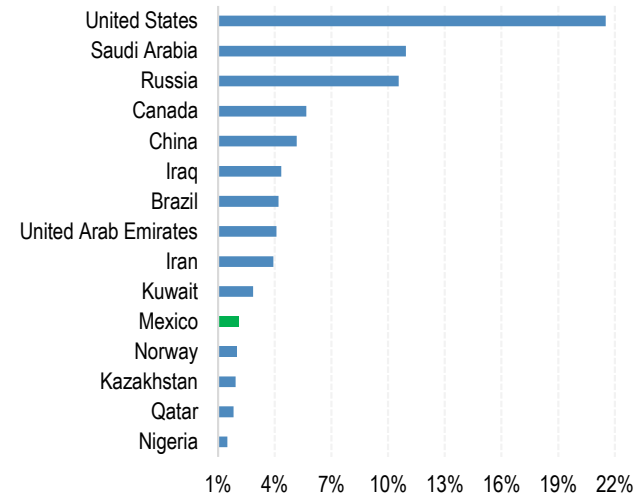
At the end of 2018, the Secretariat of Energy (Secretaría de Energía or SENER) completed the revision of the investment plans of the 107 contracts awarded during 2015-2018 to private companies. However, the administration in turn, which was skeptical of private investment in the energy sector, suspended pending upstream bid rounds upon taking power in December 2018, and since then no plan has been announced to restart the auctions. In April 2021, the Mexican Congress modified the Hydrocarbons Law to give the government of Mexico broader powers to review and suspend existing import, commercialization, and distribution permits for all hydrocarbons.

Moreover, it has repeatedly increased its efforts to strengthen Pemex and the CFE. In February 2021, for example, Mexico granted new fiscal support worth $3.5 bn to strengthen the former's finances. In addition, in 2023 Pemex was authorized a budget of $32 bn to continue upgrades to the six existing refineries, which remain top priorities, purchase the Deer Park refinery in Texas, and continue investing for the completion of the new refinery (estimated for July 2025) located at the Dos Bocas Port in the state of Tabasco.

Oil & Gas

Mexico is the 11th-largest oil producer in the world and the fourth largest in the Americas after the United States, Canada, and Brazil. According to Energy Information Administration, Mexico produced 1.8 million barrels per day in 2023, up from 1.6 million barrels per day the year prior.

Figure 216: Top 15 Petroleum and Other Liquids Producing Countries

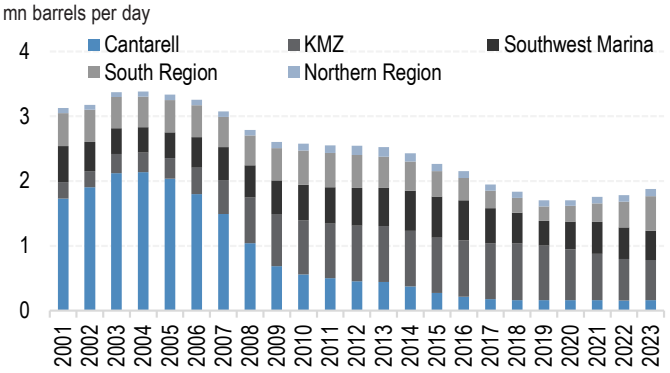


Source: EIA.

The rise and later demise of Mexico's preponderant role in oil production was due to Cantarell. The Cantarell field was discovered in the Gulf of Mexico in 1971. After starting production in 1979, it reached its peak in 2004, when the field yielded +2mn boe. Since then, its production has been declin-

ing consistently, dragging down Mexico's total oil production despite the ramp-up of new facilities, including Ku-Maloob-Zaap (KMZ). Cantarell's share of total crude production has contracted from +72% of total oil production to 42% in 2024.

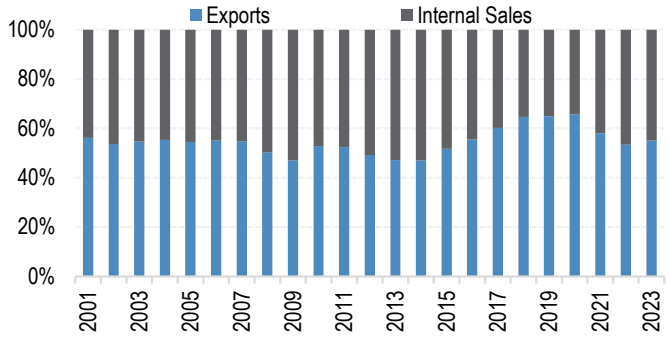
Figure 217: Crude Oil Production in Selected Fields



Source: SIE (SENER). Note: others roughly account for 1-2%.

Mexico exports on average 54% of its crude oil production. Oil production exports have been decreasing at an average annual rate of 1.7% since 2000. Over the past 20 years, production dropped 44%, while exports remained between 50% and 60% of total production.

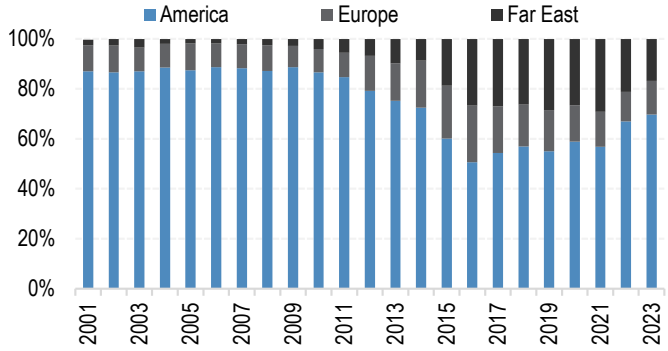
Figure 218: Crude Oil Exports vs. Internal Sales



Source: SIE (SENER).

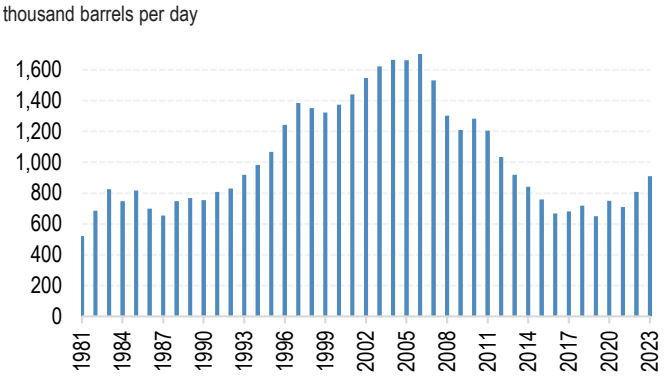
The US has been the largest destination for Mexican crude oil exports due to proximity and the fact that US Gulf Coast refineries are set up to be able to process the heavy Maya oil mix. However, exports to the country have decreased significantly from the peak in 2004 given a continued decline in Mexico's production, together with increasing self-sufficiency in the US. The US net oil import gap (% difference between supply and demand) is estimated to close in the coming years from 40% in 2012 to 32% in 2038.

Figure 219: Crude Oil Exports per Region



Source: SIE (SENER).

Figure 220: Crude Oil Exports to the US



Source: EIA.

Pemex operates through two main divisions: Pemex Exploration and Production and Pemex Industrial Transformation. Pemex Industrial Transformation controls the national gas, refining, and petrochemical businesses and affiliated companies (Drilling, Logistics, Fertilizers, Ethylene, and Cogeneration and Services). Pemex International, Pemex's international business development subsidiary, purchases and sells fuel and basic petrochemicals, but not equipment. As of 2023, the company had over 8,000 registered suppliers, over 70% which are U.S. firms.

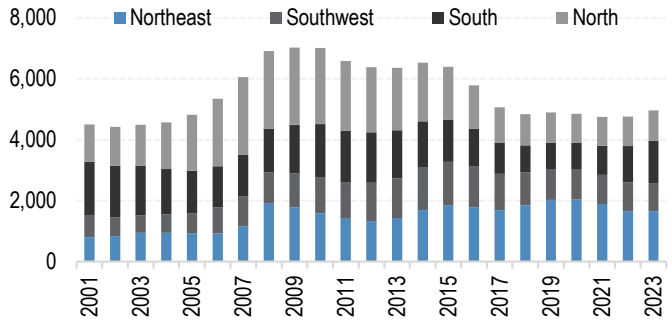
A number of private sector oil and gas contractors that were awarded land, shallow water, and deep water projects contracts from 2015 to 2018 started implementing their investment plans in 2022 and have continued in 2023, including BPH, BP, Murphy Energy, Chevron, ExxonMobil, Diavaz, Grupo R, INPEX, Total, Premier Oil, Petrobal, Hunt, Grupo Mexico, Jaguar, Petrofac, Lukoil, and Hukchi Energy. These companies will invest an estimated $18 bn from 2021 to 2024 to purchase seismic services, exploration, drilling and extraction equipment, including platforms and related services for 794 wells. Talos Energy won a crude oil field contract to drill the ZAMA Field (Gulf of Mexico) in 2015, a field that it

found. However, in 2023 the company sold 49% of its participation in the Zama Field to Grupo Carso after years of disagreements between the Mexican government and Talos over how to proceed with the project.

Mexico's natural gas production has declined 29% from its peak level in 2009 but has increased, albeit marginally, over the past five years to ~5 bn cubic feet per day. Until 2019, production had not been able to keep up with rising demand due to (1) a boom in the industrial sector, namely manufacturing activity, in the country, and (2) a shift toward natural gas as an energy source for industrial processes due to the fuel's low cost vis-à-vis other hydrocarbon sources.

Figure 221: Natural Gas Production per Region

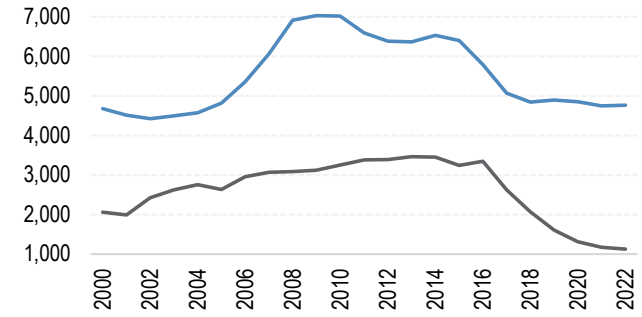
mn cubic ft / day



Source: SIE (SENER)

Figure 222: Natural Gas Production vs. Consumption

Mn cubic feet / day

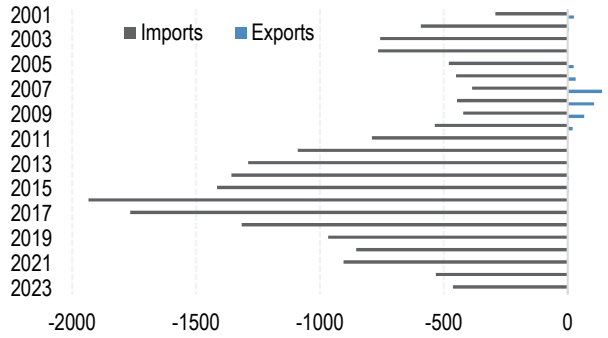


Source: SIE (SENER).

Mexico is a net importer of natural gas, with the deficit standing at ~500 mn cubic feet per day in 2023. Exports have declined at a 10-year CAGR of 16%, while imports have also declined at a CAGR of 16% since the 2016 peak.

Figure 223: Natural Gas Trade Balance

mn cubic ft / day

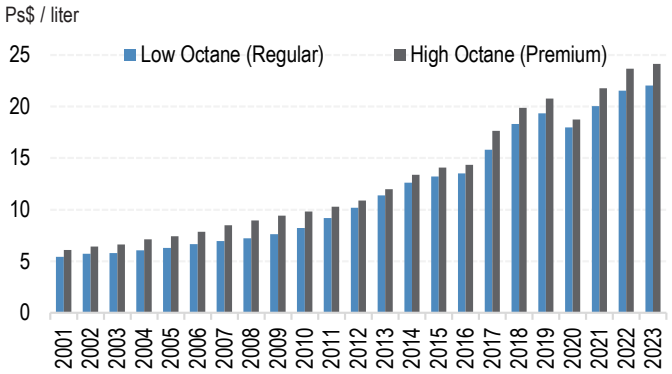


Source: SIE (SENER).

Before 2013's energy reform, gasoline prices in Mexico were set by the government. If prices defined by SHCP and Pemex together were lower than production costs/import prices for Pemex, the federal government absorbed the difference through a subsidy. The formula to calculate gasoline prices included factors such as market oil prices, exchange rates, production costs/margins, intermediation costs/margins, taxes, etc.

To reduce the impact of the subsidy for gasoline prices on the government's finances, a crawling increase was established in 2009 and lasted until 2014. For 2015, according to what was established by the Energy Reform, the government fixed a maximum price for gasoline throughout the year based on expected inflation for the previous year (in this case, 2014) and market oil prices. The fixed increase for 2015 was 1.9% on average. This mechanism was originally scheduled to remain in place until 2018, when gasoline prices would be liberalized to be set according to market prices. However, as part of the economic package submitted to Congress in September 2015, the Ministry of Finance proposed bringing forward the price liberalization to 2016, establishing that the monthly maximum price fluctuations will be limited to a band of ±3% compared to their over-year-ago levels. **Full liberalization was brought forward one year to 2017 from 2018 originally. Now, prices have gone back to being subject to government control depending on the level of the tax charged, which is under the government's discretion.**

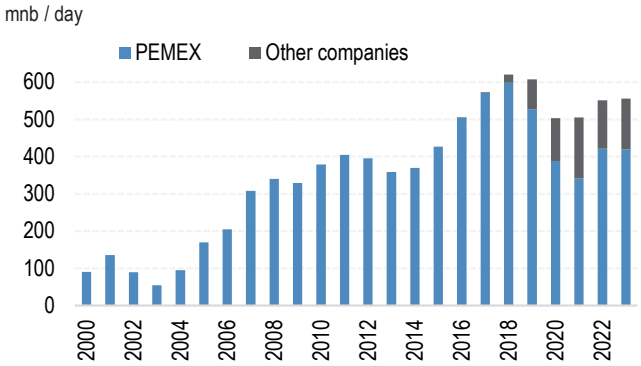
Figure 224: Gasoline Prices in Mexico



Source: CRE.

Mexico is also a net importer of gasoline. Pemex's gasoline production doesn't cover domestic consumption. Thus, despite being a major oil producer, Mexico is a net importer of gasoline. As of the end of 2023, gasoline imports accounted for 51% of total oil derivatives imports.

Figure 225: Mexico Gasoline Imports

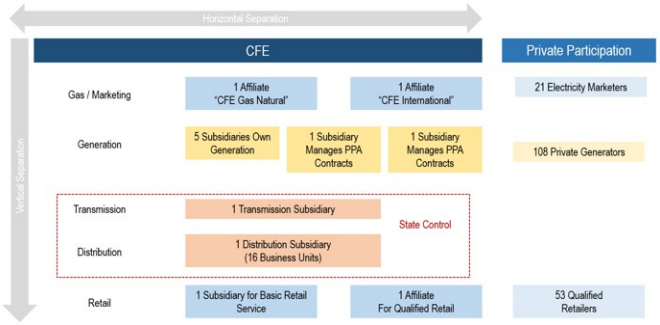


Source: SIE (SENER).

Electricity

The electricity sector in Mexico is federally owned, with the Federal Electricity Commission (CFE) effectively controlling the whole sector and private participation only allowed through specific service contracts. Although electricity transmission and distribution remain in the hands of the state, generation has been open to private participation for over 10 years despite several limitations implemented after the 2018 election. The current industry structure as well as institutional roles are as follows.

Figure 226: Mexican Electricity Sector Industry Structure

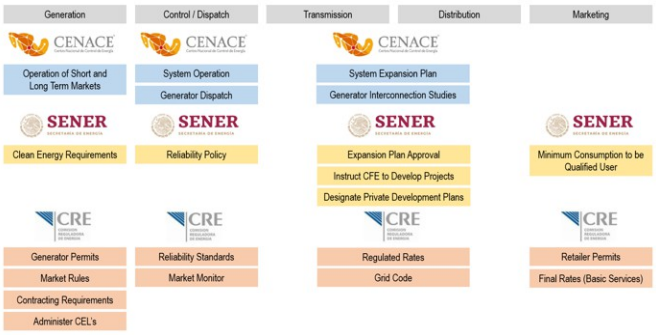


Source: Bravos Energia and J.P. Morgan.

Institutional Roles:

- **Ministry of Energy (SENER).** The federal-dependent Ministry of Energy is in charge of conducting the country's energy policy to guarantee competitive, sufficient, quality, economically viable, and environmentally sustainable access to energy.
- **National Center of Energy Control (CENACE).** Decentralized public organism whose objective is exercising operational control of the National Electric System (SEN), the operation of the Wholesale Electric Market, and guaranteeing impartiality in the access to the National Transmission Grid and the General Distribution Grids. The institution is also responsible of creating modernization programs for the National Transmission Grid and the General Distribution grids which, if authorized by the Ministry of Energy (SENER), are incorporated into the National Electric System's Development Program (PRODESEN).
- **Energy Regulating Commission (CRE).** Dependency of the centralized Federal Public Administration, which acts as a regulatory body in energy matters. It has been granted technical, operational, and management autonomy. It is in charged of exercising the Law of Coordinated Regulatory Organs in Energy Matters (LORCME), the Hydrocarbons Law, the Electric Industry Law (LIE), the Energy Transition Law (LTE), and the General Climate Change Law with the purpose of promoting the industry's efficient development and sector competition, protecting users' interests, enabling adequate national coverage, and attending to the reliability, stability, and security of supply and provision of services.

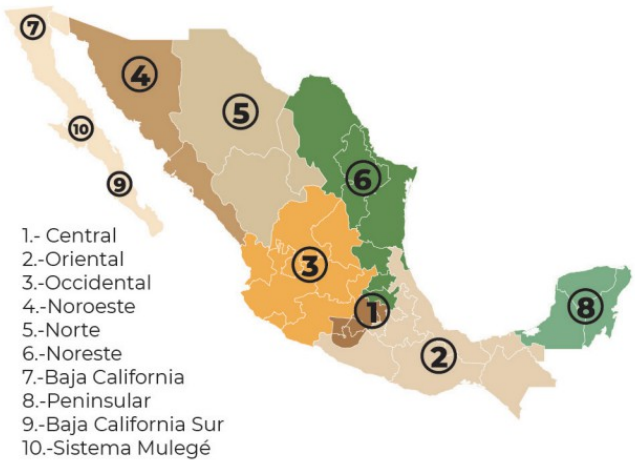
Figure 227: Mexican Electricity Sector Institutional Roles



Source: Bravos Energia and J.P. Morgan.

Mexico's National Electric System (SEN) comprises nine regions, a binational electricity system in Baja California, and a small isolated electric system (Mulgué). Most of these regions are interconnected, forming the National Interconnected System (SIN), while the Baja California System operates in the Western Interconnection of the US, which is overseen by the Western Electricity Coordinating Council (WECC).

Figure 228: Regions of the National Electric System



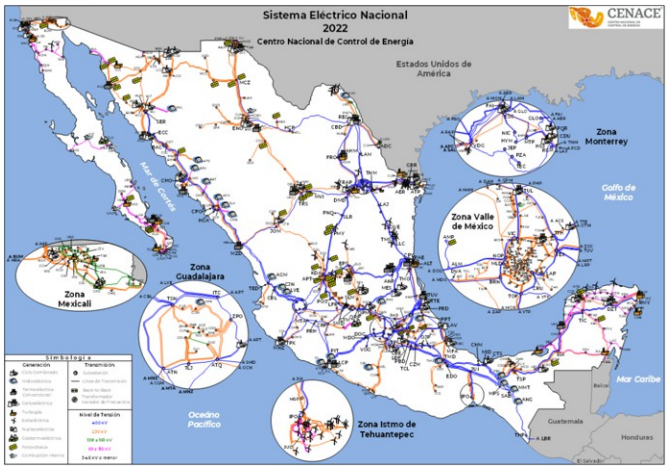
Source: PRODESEN 2023-2037 through CENACE.

In addition, the SEN is made up of electrical grids at different tension levels (there were 110,558 km of transmission lines by YE223), as well other infrastructure:

1. **The National Transmission Grid (RNT):** System integrated by the electrical grids used to distribute energy to the RGDs, final users, and international interconnections. Includes tensions ≥ 69kV.
2. **The General Distribution Grids (RGD):** Power grids used to distribute energy to the general public. Integrated by power grids of medium tension (1 ≤ kV ≤ 69) and low tension ≤ 1 kV.
3. The **Power Stations** that hand electric energy to the RNT or the RGDs.
4. **Equipment and facilities of CENACE** used for the operational control of the SEN.
5. All **other elements** determined by the SENER.

Figure 229: National Transmission Grid of the SEN

YE22



Source: PRODESEN 2023-2037 through CENACE.

Figure 230: Transmission Capacity by Tension Level

YE22

Tension Level	Length ('000 km)			y/y growth	Percentage of Total
	2020	2021	2022		
Transmission from 161 to 400 kV	**56.3**	**56.3**	**56.4**	**0.08%**	**51%**
400 kV	26.1	26.1	26.1	0.10%	24%
230 kV	29.7	29.7	29.7	0.07%	27%
161 kV	0.5	0.5	0.5	0.00%	0%
Transmission from 69 to 138 kV	**54.2**	**54.2**	**54.3**	**0.16%**	**49%**
138 kV	1.6	1.6	1.6	0.00%	1%
115 kV	48.5	48.5	48.6	0.18%	44%
85 kV	1.7	1.8	1.8	0.06%	2%
69 kV	2.3	2.3	2.3	0.00%	2%
Total	**110.5**	**110.5**	**110.7**	**0.12%**	**100%**

Source: PRODESEN 2023-2037 through CENACE and J.P. Morgan.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 231: International Interconnections of the SEN

YE22, capacity in KV

Source: PRODESEN 2023-2037 through CENACE. (1) Emergency interconnection, isolated charge operation. (2) Power station physically in the US and interconnected to the SEN through a Generator Interconnection Contract. + Exports. - Imports.

Figure 232: Regional Interconnections of the SEN

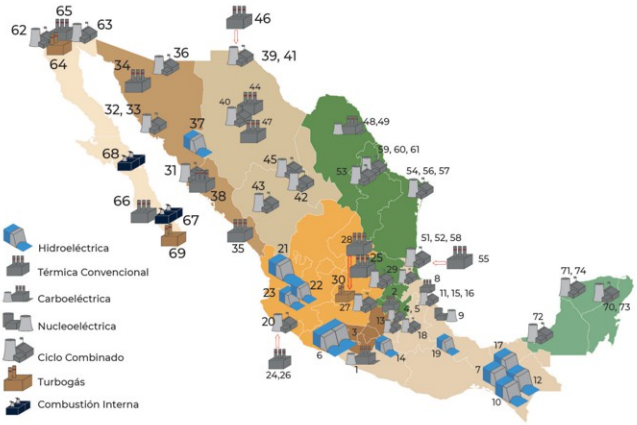
YE22

Source: PRODESEN 2023-2037 through CENACE.

Total installed capacity by YE22 was 87 GW (+1.1% vs. 2021). This includes installed capacity of power stations owned by the CFE, Independent Producers of Electric Energy (PIE), Self-supply (AU), Co-generation (COG), Small Production (PP), Imports (IMP), Exports (EXP), and Continuous Self-Use (UPC). Most of last year's gain came from an increase in combined cycle and solar PV capacity. Moreover, of the total installed capacity, 64.0% were thermal sources, 14.5% hydropower, 1.8% nuclear, and 19.6% clean energy other than hydro (7.5% solar, 7.9% wind, 1.1% geothermal, 0.5% biomass, and 2.6% efficient cogeneration). Natural gas is the main source for electricity, a large part of which is imported from the US. In fact, according to Cenegas (Mexico's Natural Gas Controller Center), the country will demand 10 bn cubic feet per day of natural gas by 2032, +24% vs 2023 levels.

Figure 233: Main Power Stations - CFE and PIE (70% total capacity or 60 GW]

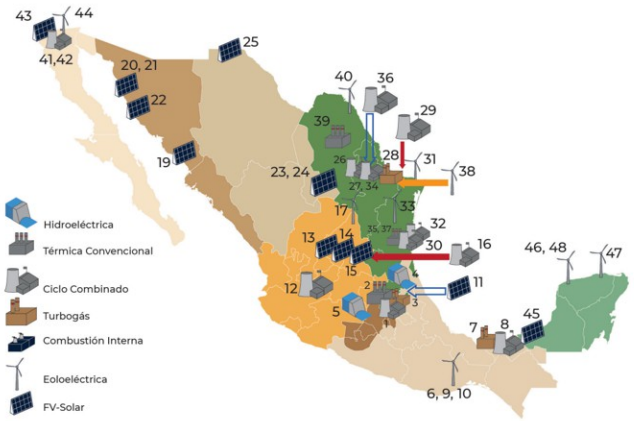
YE22



Source: PRODESEN 2023-2037 through CENACE.

Figure 234: Main Power Stations - Privates (30% total capacity or 26 GW]

YE22

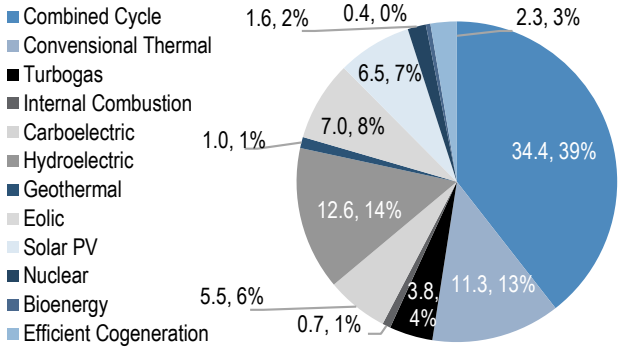


Source: PRODESEN 2023-2037 through CENACE.

Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 235: Installed Capacity of 87 GW by Technology

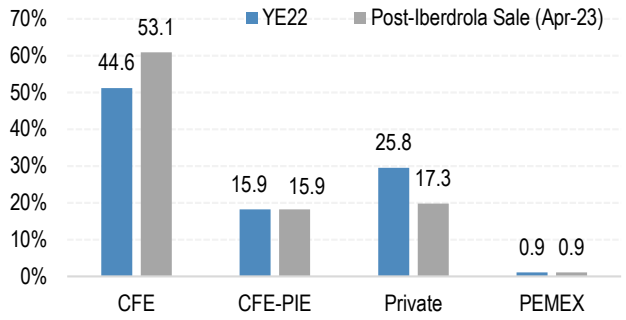
GW, % of total (total = 87.1 GW of installed capacity); YE22



Source: PRODESEN 2023-2037 through CENACE and J.P. Morgan.

Figure 236: Installed Capacity - Public vs. Private

% of total, GW as data label



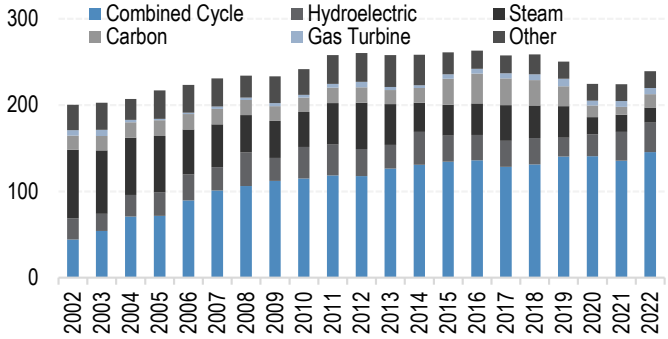
Source: PRODESEN 2023-2037 through CENACE and J.P. Morgan.

Mexico's total electricity production in 2022 amounted to 238 TW/hour. 61% of the electricity generated in Mexico is done through combined cycle processes, 14% in hydroelectric power plants, 7% through the use of steam, and 17% using other types of technologies, including nuclear, carbon, and wind.

~71% of the electricity produced in Mexico depends on fossil fuels for its generation. This includes electricity generated through combined cycle, internal combustion, dual, gas turbine, and carbon-electric processes. Processes not dependent on fossil fuel inputs include steam, hydroelectric, wind, and geothermal electricity.

Figure 237: Electricity Generation Matrix by Energy Input

TW/hour

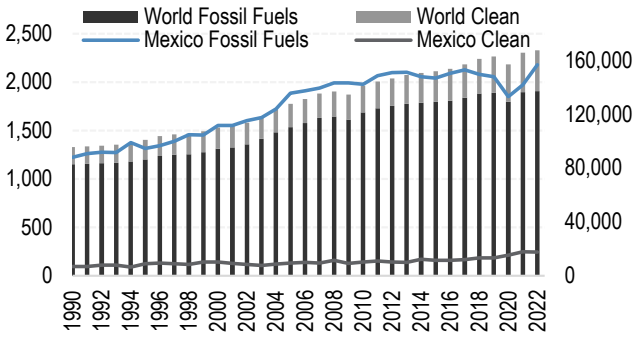


Source: SIE (SENER).

The use of clean energy for electricity generation in Mexico has historically lagged the rest of the world, with its heavy reliance on fossil fuels increasing after the Canterell oil field discovery in the early 1970s. In fact, as of YE22, fossil fuels supply 90% of the country's energy consumption, with clean energy only representing the remaining 10%. In contrast, the share of clean energy in the world's energy consumption has grown at a 3.2% pace in the past 20 years, accelerating more importantly in the past five years (c.3.4% CAGR). Nonetheless, fossil fuels still represent 82% of total energy consumption.

Figure 238: Fossil Fuel vs. Clean Energy Consumption

TWh



Source: Our World in Data.

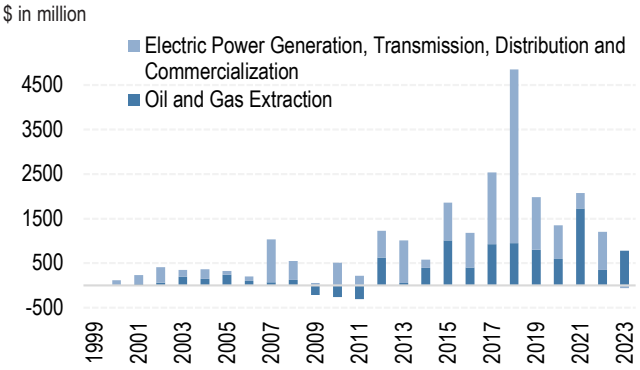
Mexico has established short- and midterm targets for generation of clean energy in its General Law for Climate Change (LGCC) and its Energy Transition Law (LTE). These are in accordance with international GHG reduction pledges tied to the Paris Agreement, to which it adhered in 2016. The aim is to reach a share of as much as 40% in power generation from zero or low-emission energy types by 2035 and 50% by 2050.

The Ministry of Energy is obliged to publish a Clean Energy Status Report (RAEL) annually. However, recent

changes made by the Regulatory Energy Commission (CRE) to the definition of clean energy have meant that reported data is no longer an accurate representation of reality. In particular, the Mexican government now considers as "clean" the energy generated by steam from natural gas combined cycles. Until 2022, Mexico's clean electricity generation had reached 31.2% (vs. its 2024 target of 35%). With this change, experts estimate share could jump to >50% without effectively adding any new capacity to the renewable matrix. Important to note that, currently, no other country uses this criteria.

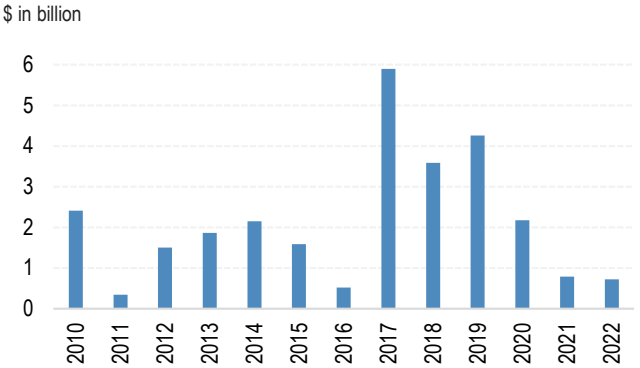
Private investment in Mexico's energy space reached a peak of $4.8 bn or 0.4% of GDP in 2018, when accounting for electricity generation and hydrocarbon exploration and extraction. This has since fallen to $721 mn or 0.04% of GDP by YE23. However, this could easily double in the mid-term with IRENA, together with the Ministry of Energy, estimating that the country has the potential to generate 280TWh of renewable power by 2030, representing a 5x increase over today's level, using a diversified mix of wind, solar, hydro, geothermal, and biomass power technologies.

Figure 239: Energy Sector FDI in Mexico



Source: Ministry of Economy.

Figure 240: Clean Energy Investment in Mexico

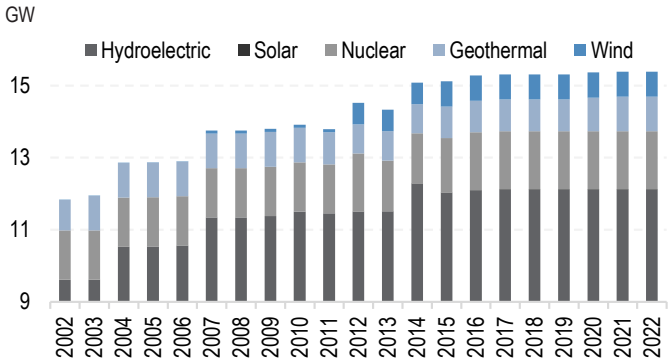


Source: Statista, J.P. Morgan research.

Mexico has the natural resources to expand wind capacity in the west, solar production in both northern and southern states, and hydropower in the southeast. According to IRENA, wind and solar combined could account for almost 60% of Mexico's renewable power generation and 26% of total generation, while biomass and geothermal resources (which are also two of the least expensive power supply options) could account for the rest.

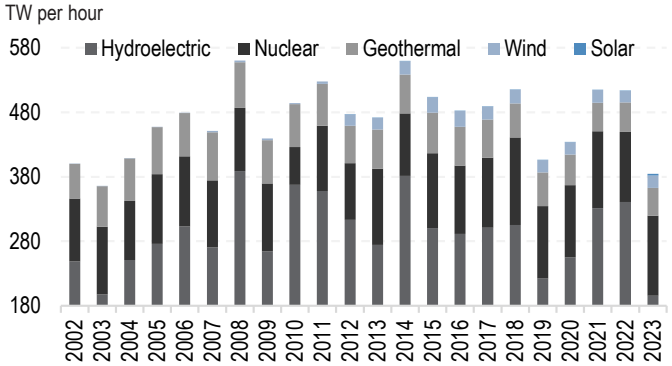
- **Wind** has the potential to produce 92TWh of electricity per year vs. the current 1.92TWh, nearly all of it derived from onshore wind. With total installed wind power capacity of 699 MW as of 2022, a total of 29.3GW would require installation to reach the targeted 30GW. According to AMDEE, there are seven wind power plants with 800 MWs of installed capacity that are completed and awaiting permits from the CRE to begin operations on top of another 28 parks, still in development stages with a total 5 GW capacity that still are awaiting for permits.
- **Solar** could contribute 30GW of power capacity, generating approximately 66TWh of electricity per year. Considering that the current installed capacity stands at 6 MW, it would imply an average annual installation rate of 1.5 GW until 2030. Most of solar power potential is in northwestern Mexico and Baja California, where average daily irradiation can exceed 8 kWh/ m2 in spring and summer.
- **Geothermal** power capacity in Mexico is already the sixth largest in the world, with IRENA estimating it could reach 4.5 GW by 2030 (vs. the 951 MW currently installed).
- **Hydropower** is currently the country's largest share of renewables at 46% of the total, and it could reach 26 GW by 2030 (vs. 12.1 GW now).
- **Biomass** power generation could amount to 2.8 GW of capacity (vs. 1GW currently). Several forms of biomass could be used in Mexico, including wood and wood products, agricultural and forest residues, and biogas from urban waste and manure.

Figure 241: Installed Capacity by Clean Energy Source



Source: SIE (SENER).Solar accounts for only 0.01% of the total 6MW.

Figure 242: Electricity Generation per Clean Source



Source: SIE (SENER).

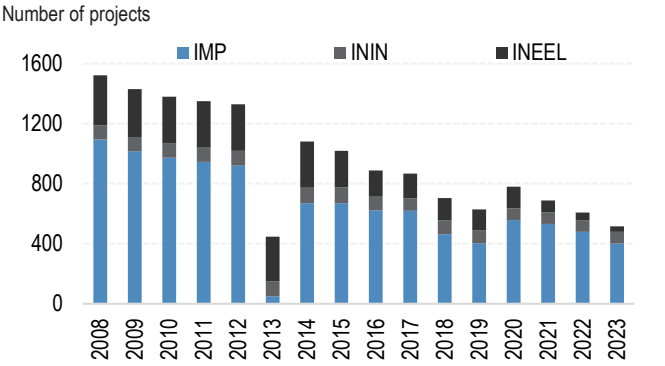
In Mexico, companies also stand to benefit from renewable usage given clean energy certificates (CELs) and tax incentives. However, the current administration discontinued the use of long-term auctions of CELs while spot market CELs are now bilateral only. As part of the 2021 LIE Amendments, all clean power generation facilities will be eligible to obtain CELs regardless of their ownership and the time when the power facilities began operating. This change resulted in CFE's clean energy facilities receiving CELs and eliminated the need to acquire new CELs through the CEL market.

Companies were able to register as generators and participate in the electric wholesale market derived from the opening of the electric sector in 2014. Unless sold to a qualified user registered in the wholesale market, private generators use a qualified service supplier to sell their electricity to the final consumer, moving it through the CFE's grid. Private players currently have 38% of renewable installed capacity. The installed capacity of Mexico's clean energy plants was 31,369 MW as of 2022, with the majority of the clean energy plants being hydroelectric. The CFE dominates the hydropower market, while privates have invested more in wind and solar. In fact, nearly all of the wind and solar projects commissioned from 2014-2023 have been from private players.

According to the Mexican Energy Association (AME) the biggest private renewable generators are Iberdrola, SAAVI, Enel, Mitsubishu, and Naturgy. Installed capacity is mainly focused on solar and wind parks.

There are over 4,559 projects that came online between 2014 and 2018 to develop electricity generation infrastructure from renewables, with the number falling to 3,219 between 2018-2023.

Figure 243: Technology Research and Development Projects in the Energy Sector – Highly Concentrated in Oil



Source: SIE (SENER). Note: The IMP is the Mexican Petroleum Institute, the ININ is the Institute for Nuclear Research, and the INEEL is the National Institute of Electricity and Clean Energies.

Special focus needs to be placed on new technologies where Mexico has the potential to stand as a large winner, such as battery storage & lithium, green hydrogen, and distributed generation.

- **Lithium.** IRENA projects the global supply of lithium will triple by 2025 (vs. 2019 baseline), coming from a doubling of supply from Australia and Chile, but also new entrants such as Bolivia, Zimbabwe, and Mexico. The latter has one of the top 10 biggest lithium ore mines in the world, expected to be commissioned in 2025. The Sonora lithium mine, located in the northwest state of Sonora and 170km from the US-Mexico border, has 8.8 Mt of LCE (lithium carbonate equivalent) resources. The only project under operation is being developed as an open-pit strip mine with operation planned in two stages: (1) lasts four years (starting in 2024) with an annual production capacity of ~17,500t of lithium carbonate, and (2) ramp up production to 35k tons per year. 100% of the project is held by Gangfeng Lithium through its holdings in Bacanora Lithium. In 2022, the Mexican government nationalized lithium and established a large reserve of ~235k hc in Sonora. However, the decree noted that the rights and obligations of the holders of current mining concessions within the created lithium mining reserve area would not

be affected. Thus, foreign companies awarded contracts to exploit Mexico's potential lithium reserves prior to nationalization were not affected, including Gangfeng Lithium. No other concessions will be granted in the near future, with the government having established a state-owned company named "LitioMX" for the exploitation and trade of the country's lithium. Private companies will be allowed to participate in the sector through minority JVs with the state company.

- **Green hydrogen.** According to a study conducted by the German-Mexican Energy Partnership in 2021, over 670 MW of electrolysis capacity could be deployed by 2030 and 38.7 GW by 2050. This would require ~$15 bn in investments and would help avoid 300 MtCO2. Electrolysis would be mostly powered by Solar PV generation. In fact, according to the Mexican Hydrogen Association, several studies have pointed out that Mexico could save up to 64% in green hydrogen production costs compared to other countries given its geographic location and renewable energy potential, and it has a large opportunity as an exporter. There are currently 10 green hydrogen projects under development. CFE launched a trial project in Baja California with first production expected to be ready sometime this year. CFE announced that it has a plan to produce and generate electricity with green hydrogen to replace natural gas. In addition, in its 2023-2027 business plan, PEMEX committed to replace gray hydrogen with green hydrogen.
- **Distributed generation.** This refers to electricity generated from sources, usually renewables, near the point of use instead of centralized generation sources from power plants. By YE22, Mexico had 2.63 GW of installed DG capacity spread across 335k interconnection contracts, up from only 14 MW 10 years ago. It added 599 MW of new capacity in 2022 alone, +25% y/y. Capacity is mostly focused on the north of Mexico (Nuevo Leon, Chihuahua, Sonora, and Coahuila) and the Bajio (Jalisco, Guanajuato, and Michoacan). Also significant is the southeastern state of Yucatan. Mexico's distributed generation capacity is made up of independent generators of up to 0.5 MW that connect to low or mid-tension power grids and sell their excess output to the CFE. Access for new projects to the net metering scheme has been limited due to new rules issued by CRE in November 2022. Regulations limit distributed generation to a maximum of 0.5 MW, presenting a significant hurdle for companies whose energy consumption exceeds that limit. The US has established state-specific limits ranging from 1 to 5.1 MW, significantly larger than Mexico's cap. The UK has set its limit even higher at 5 MW. In contrast, countries like India don't impose explicit limits but regulate based on feed-in tariffs

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Infrastructure

Guilherme Mendes [AC] and team
(55-11) 4950-4105
guilherme.g.mendes@jpmorgan.com
Banco J.P. Morgan S.A.

According to the World Economic Forum, Mexico is ranked 54th globally on the overall quality of its infrastructure (out of 141 countries).

Figure 244: Mexico Infrastructure Ranking

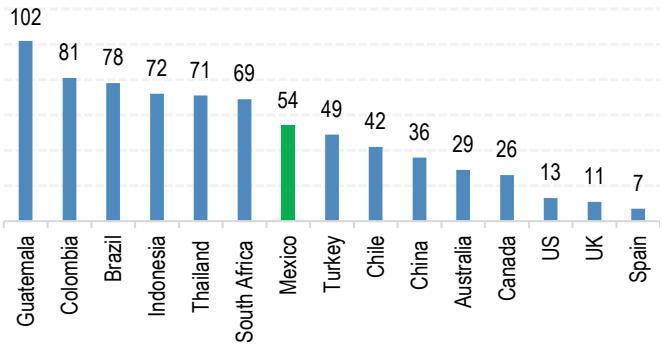
Ranking out of 141

Category	Rank 2016	Rank 2017	Rank 2018	Rank 2019
Quality of roads	58	52	47	49
Efficiency of train services	59	65	74	58
Efficiency of seaport services	57	62	60	63
Efficiency of air transport services	61	67	70	80
Quality of electricity supply	68	72	85	81
Fixed telephone lines/100 pop	65	67	64	62
Mobile telephone lines/100 pop	114	108	109	112

Source: WEF Competitiveness Report.

Figure 245: Quality of Overall Infrastructure in Selected Countries

Rank 1-141

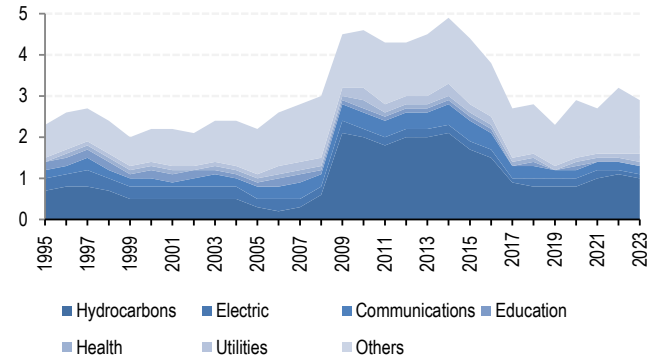


Source: WEF Competitiveness Report.

Public sector fixed investment has been declining since 2014 as fiscal constraints forced the government to sacrifice investments for current expenditures, arguing investments would be made up by the private sector through PPPs. Since then, public investments have gone from 4.5% of GDP in 2011 to 2.9% in 2023, falling nearly 9% in 2019 alone. Despite the pandemic – or maybe because of it – public investments recovered 16% in 2020.

Figure 246: Infrastructure Investment per Sector

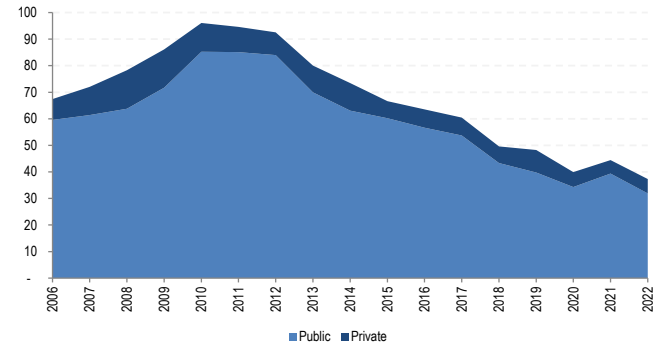
% of GDP



Source: Ministry of Finance

Figure 247: Public and Private Investment in Infrastructure

Mx$ in billion



Source: Ministry of Communications and Transportation.

Infrastructure plans

The main priorities for infrastructure development in Mexico were laid out in late 2018 when president AMLO assumed office. The following four projects have been the main focus for the government to be completed by the end of the current administration. Furthermore, president Sheinbaum has mentioned the return of passenger trains (a project initiated in the current administration), the construction of roads to leverage the relocation of companies, the improvement of ports, construction of more airports, and the continuation of 12 development hubs of the Interoceanic Corridor and adding one in Tapachula.

Additionally, she proposes launching a Mexican satellite to improve communications and expand airports. She would also strengthen the Federal Telecommunications Institute (IFT) and continue with AMLO's strategic projects such as Tren Maya, Felipe Ángeles Airport, and Dos Bocas Refinery.

Figure 248: Top Infrastructure Projects

$ in bn

Project	Budget (USD)
Trains	102
Highways	36
Airports	34
Rural Roads	9
Total	**181**

Source: Mexican Government. Note: projects to be completed in the current administration.

Transportation

Roads

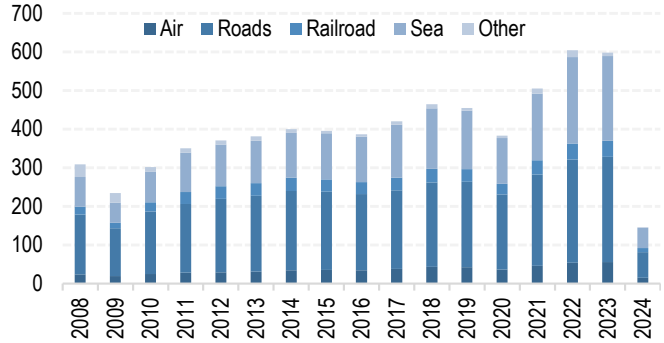
Roads are the primary mode of travel in Mexico, mainly because of the flexibility they provide to loading trucks as well as their vastness, which makes door-to-door delivery possible. Mexico's road network has an extent of 836.6k km and interlinks the interior part of the country with the North and South borders, making connections between the United States, Guatemala, and Belize. Mexico has nine formal border crossings in the south (eight with Guatemala and one with Belize).

Figure 249: Map of Roads

Source: Vidiani.

Figure 250: MX - US Trade - Means of Transport

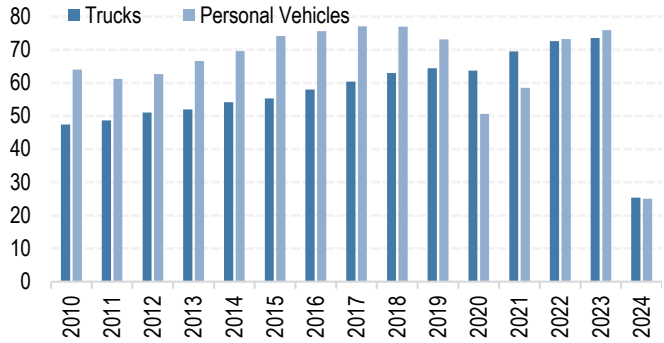
numbers in bn USD



Source: US Department of Transportation. Note: 2024 data is up to March.

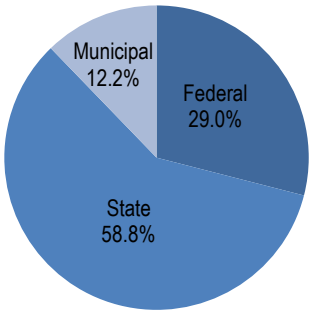
Figure 251: MX-US Border Crossings by Truck vs. Personal Vehicles

in million



Source: US Department of Transportation. Note: 2024 data is up to April.

Figure 252: Highway System Composition – 63% are unpaved and 22% are Toll Highways



Source: SCT.

Railroads

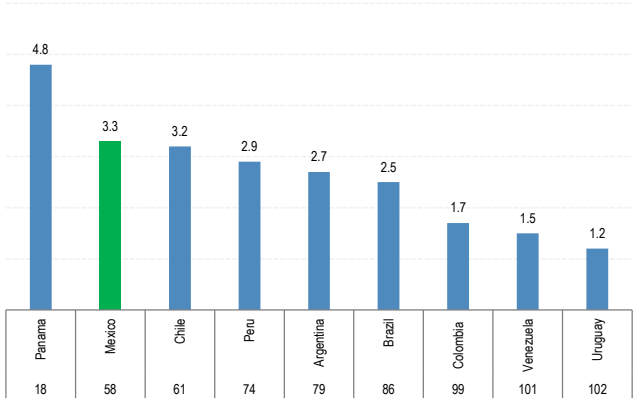
According to the World Economic Forum, Mexico ranks 60th (out of 141) in railroad density. Also, Mexico ranks 58th in efficiency of train services. Compared with other LatAm countries, Mexico is ranked second behind Panama (best ranked at 18th out of 140).

Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

The length of the network's tracks in Mexico has remained flat in the past 20 years, reaching 26,910 km in 2022 or only +1% vs 2005.

Figure 253: Efficiency of Train Services for Selected Latam Countries

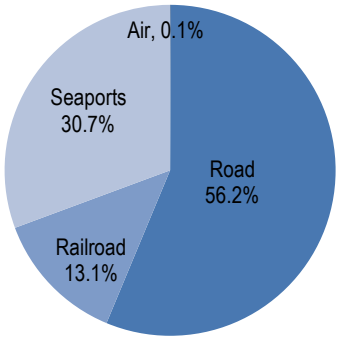
Score 1-7



Source: WEF Competitiveness Report.

Railway infrastructure represents one of the most important logistics assets in Mexico, with 26.9k kms of tracks covering a large portion of the Mexican territory. However, according to the Ministry of Communications and Transportation, only ~23.4k kms are operational. During 2022, 13.1% of total cargo movement was made via railroads. Passenger transportation is done c. 95% by road and only 1.5% on railroads. A total of 41mn passengers used the railway system for transport.

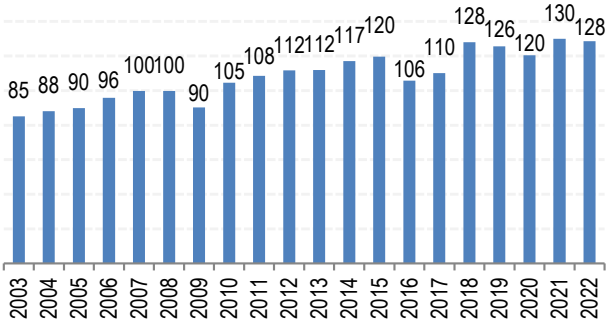
Figure 254: Railways Share of Total Commercial Transportation



Source: SCT.

Figure 255: Cargo Movement on the Railroad System

Tons in million

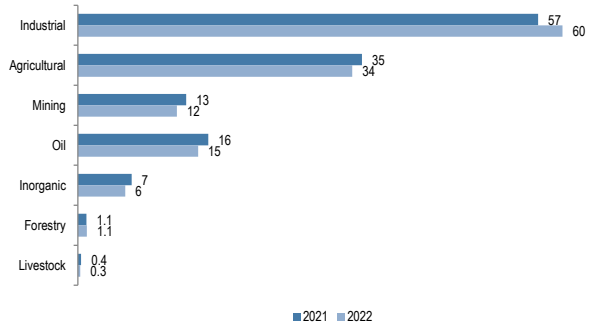


Source: SCT.

Industrial products are the main cargo type moved by railroads in Mexico. Industrial cargo, which represents 47.5% of the total cargo measured in tons, has been growing for the last 10 years. In 2010 industrial cargo represented only 41.7%.

Figure 256: Main Cargo Type Moved by Railroad

numbers in million tons

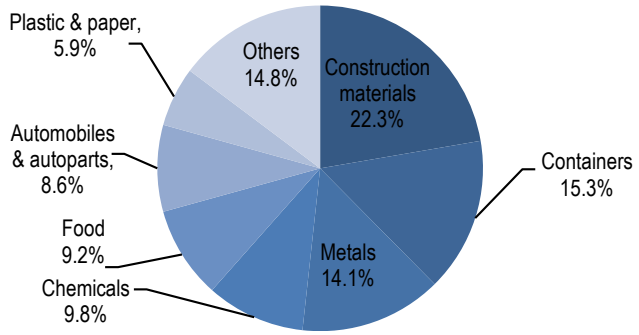


Source: SCT.

Cement and iron are the most relevant products, followed by containers and metals. Motor vehicles represented 9% of the total load in 2020.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 257: Industrial Cargo – Breakdown by Product



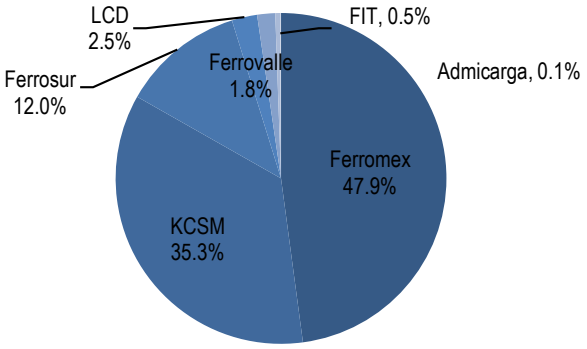
Source: SCT.

As part of former President Zedillo's National Development plan, railroads in Mexico were privatized in 1995. Ferrocarriles Nacionales de México was vertically divided into seven private companies that were granted concessions by the government. From this, three major private companies emerged and now control 95% of the market:

- Ferromex, which is majority owned by Grupo Mexico, is the biggest railroad company with 11,000km of railroad network (c. 47.9% of the national railroad network). It covers the northwest, west, and central parts of Mexico.
- Kansas City Southern de México covers 5,335km, approximately 35% of the national railroad network. The company covers the center and northeast part of Mexico.
- Ferrosur, also majority owned by Grupo Mexico, covers 2,600km, mainly in the southeast part of the country. It holds c. 12% of the total railroad network.

Figure 258: Market Share per Railroad Operator

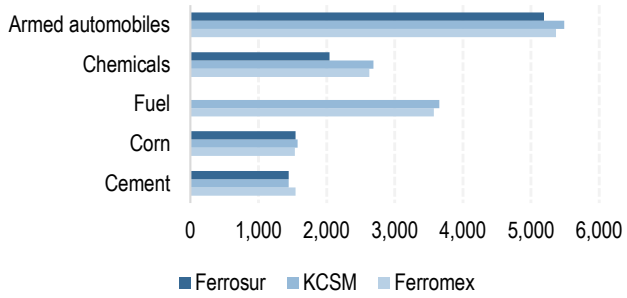
by cargo



Source: SCT.

Figure 259: Comparable Tariffs among Railway Concessionaries

1,000 km per ton fee in Ps$



Source: SCT. Note: updated in 2024. Comparable tariffs are established upon minimum cargo weight in kg.

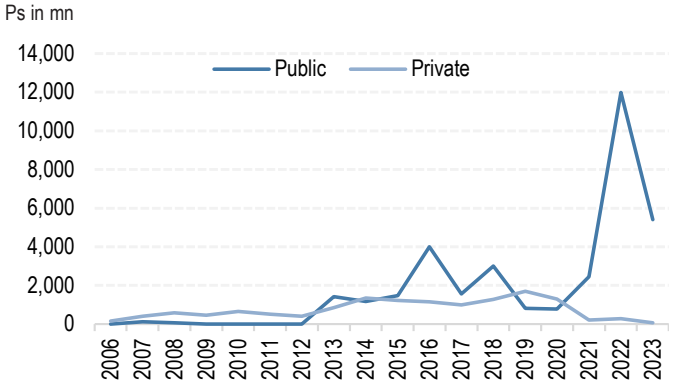
Figure 260: Railroad Network in Mexico

Source: Mexican government.

Since 1995, when railroads were privatized, the public sector has invested very little in existing infrastructure, having a peak in 2022. Total public infrastructure spending on railways reached Ps$11.9 bn in 2022, up from Ps$815 mn in 2019. Public spending on railways in 2022 increased almost 3x vs 2018, while private investments in the sector decreased -2.9% in 2022 on a yoy average basis since 2018.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 261: Public and Private Sector Investments in Railroad Infrastructure



Source: INEGI. Note: 2023 shows data up to March.

Airports

Mexico has 85 airports divided among four large operators and individual private concessionaires. A total of 70 airports are international airports, and the other 15 are national. Before 1965, the Dirección General de Aeronáutica Civil (DGAC) was in charge of the administration, operation, and maintenance of all airports in Mexico. In June 1965, the government created Aeropuertos y Servicios Auxiliares, a state-owned company that took over the management of all airports.

The Airports Law was enacted in 1995, giving the government the right to grant airport management concessions to private operators but capping foreign investment in airport companies at 49%. The National Foreign Investments Commission needs to grant a special permit for this percentage to go up.

In 1997 the federal government privatized some airports, dividing them into four main regions granted to different concessionaires: 34 were offered to the private sector on the basis of a "build-operate-transfer" (BOT) concession for a 50-year period with an option to renew.

- **Grupo Aeroportuario del Sureste (ticker: ASUR)** was the first company to acquire a package concession, spanning the southeast group that contained nine airports, including Cancun City Airport, Mexico's most popular tourist destination (~35% of international arrivals). In September 2000 ASUR went public, and today it trades on the Mexbol and NYSE. The company is part of the MEXBOL index.
- **Grupo Aeroportuario del Pacífico (ticker: GAP)** obtained the second package granted by the government. The bundle includes the northwest Pacific region consisting of 12 airports and includes Guadalajara City Airport (Mexico's third-largest city). GAP went public in 2006 and trades on the Mexbol and NYSE. It is the biggest public airport company and is part of the MEXBOL index.
- **Grupo Aeroportuario del Centro Norte (ticker: OMAB)** in 2000 obtained the concession to operate the central/north package around Monterrey City Airport, the country's major business destination after Mexico City. It went public in 2006 and is part of the current MEXBOL index sample.

Figure 262: Mexican Airports by Company

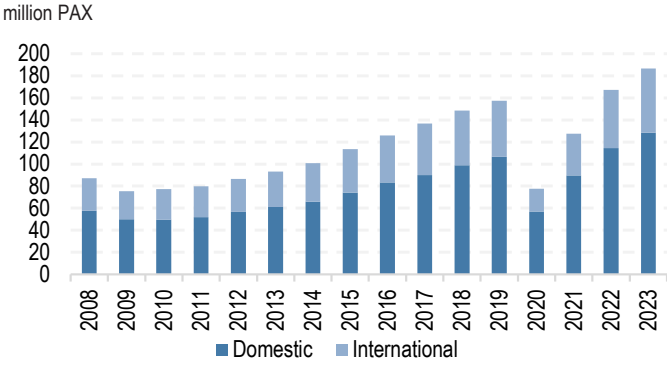
Source: J.P. Morgan, company reports.

The concessions are modeled based on the Master Development Program (MDP), in which the concession holder submits a program for the approval of the regulatory entity to establish the tariffs and CapEx curve for the next five years. In October 2023, there was a change in the methodology of the MDP and the updated version of the contract would be applied to the following MDPs: ASUR in 2024, GAP in 2025, and OMA in 2026. The main changes were **i)** a cap on returns, translated as an adjustment to the reference value when regulated revenues exceed 3% of the estimated level in the five-year plan; **ii)** the discount rate used on the five-year plan should now be based on WACC and its methodology is now publicly available, increasing the transparency of the process; and **iii)** the methodology to calculate the maximum tariffs is now based on five-year estimates vs. 15-year before and assuming a backward-looking perpetuity growth rate. Despite the noise of such changes, ASUR's 2024-2028 MDP was negotiated under the new framework and implied better than expected results, which helped to de-risk the sector.

Traffic has doubled since 2013. Mexico City (AICM) receives 26% of total air traffic passengers in the country as of 2023. GAP operates around 30% of total traffic, followed by ASUR with OMA last. GACM and GAP lead international

travel while GACM and ASUR led domestic. The 34 airports managed by GAP, ASUR, and OMA represented traffic of 126.3 million passengers in 2023.

Figure 263: Mexico Airport Traffic Breakdown – Last Year 68% was Domestic Traffic



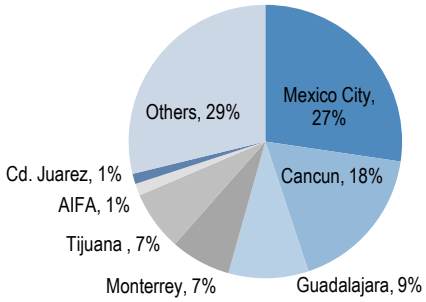
Source: SCT.

Total traffic in Mexico is up 24% LTM vs. pre-COVID levels as of March 2024. Recall that in 2024 the traffic performance has been impacted by the Pratt and Whitney engines grounding issue. Airlines have been shifting capacity toward international routes, which tend to have higher yields, and as a result the international traffic has been partially offsetting the decrease in the Mexico domestic capacity. As a reference, consolidated traffic in Mexico is flattish y/y YTD as of March 2024.

Pre-pandemic, Mexico City's international airport, which accounts for +30% of the total passenger traffic in the country, was operating above its maximum capacity, estimated at 32mn passengers per year. In 2019, Mexico City's airport moved over 50mn passengers. Official government estimates suggested that with some improvements, maximum capacity could have reached +40mn passengers per year by 2021, but that was no long-term solution. Saturation has led to tariffs for routes originating or ending in Mexico City to be 40- 80% higher than those at the neighboring airport of Toluca. AICM is the busiest airport in the country and is LatAm's second busiest airport for passenger traffic after Guarulhos airport in Brazil.

Figure 264: Mexican Airports Share

Based on PAX traffic data



Source: SCT.

One of the most important infrastructure projects in former President Peña Nieto's administration was the construction of the Mexico City New International Airport. The project was expected to entail investment of Mx$169bn (~$10bn) to be financed by the government through its annual budget, bank loans, and bond issuances. The original plan was presented in 2006, but due to social protests it was delayed. Despite construction being 30% advanced, AMLO held a public consultation to decide on the airport's future. The outcome was its cancellation, despite strong push-back against the result. The government reached an agreement with bondholders and the FIBRA owners. Cancellation fees amounted to Mx$331bn according to the Federal Superior Auditing Commission (Auditoria Superior de la Federation).

Instead of Texcoco, the government has developed the Felipe Ángeles Airport (AIFA) in the Santa Lucia military base, in the surrounding area of Mexico City. The airport was inaugurated in 2022 and has been operating with 3.1 million passengers LTM as of March 2024 compared to its 19.5 million capacity, which could be further expanded to 85 million. We believe that airlines will gradually add capacity to the new airport, and the ramp-up should be at a slow pace, especially now given the capacity constraints related to P&W issues. AIFA is located outside Mexico City and its further from the center of the city compared to AICM, and the infrastructure to access it is still being developed, which could result in additional traffic.

Another initiative from the government was the inauguration of the Tulum International Airport, by the end of 2023. It has a 5 million passenger capacity per year and has been operating 42-54k per month since its inauguration. The airport should also ramp up at a slow pace, and the impact on Cancun' traffic is likely limited – as a reference, Cancun handled 33 million passengers in 2023. Note that the airport is located around 40km away from the city of Tulum.

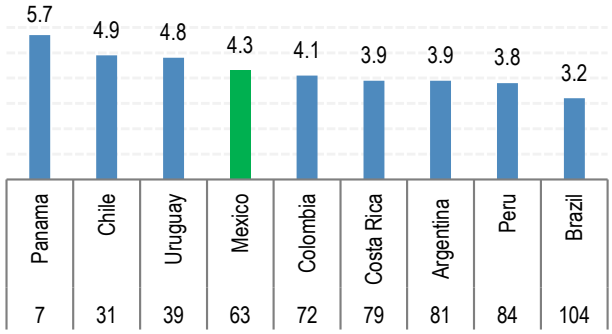
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Seaports

According to the World Economic Forum, Mexico's score on efficiency of seaport services in 2019 of 4.3 is above the global average of 4.0, where 1 is extremely undeveloped and 7 is well developed and efficient by international standards. Countries like Panama (5.7), Chile (4.9), and Uruguay (4.8) are better ranked, but Mexico still has a more competitive port infrastructure than Brazil (3.2), Costa Rica (3.9), Peru (3.8), or Colombia (3.9). Within LatAm, Mexico is also above the average.

Figure 265: Seaport Efficiency Services in Latam

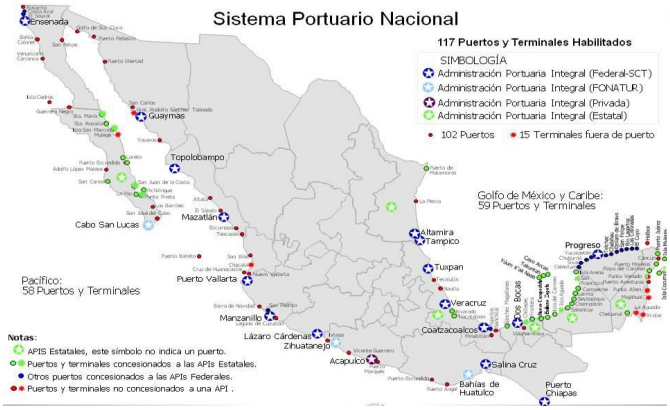
Score 1-7



Source: WEF Competitiveness Report, Global ranking under country name.

Mexico has 117 ports. All but the Acapulco port are operated by the government – municipal, state, or federal. Cabo San Lucas and Huatulco ports are operated by the federal agency in charge of tourism development in Mexico.

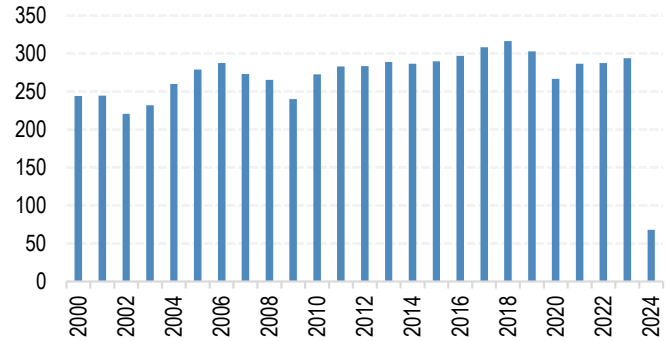
Figure 266: National Port System



Source: SCT.

Figure 267: Load Moved by Ocean

Mn tons

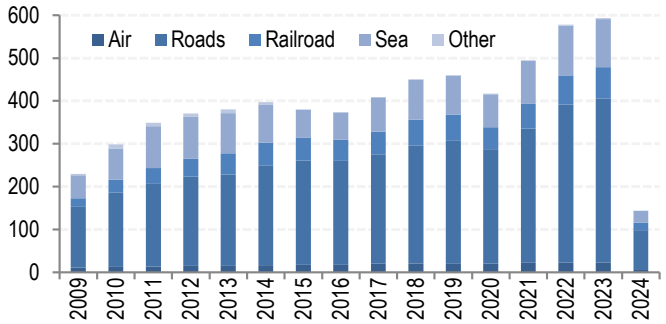


Source: INEGI. Note: 2024 shows data up to March.

Worldwide, maritime trade handles about 90% of commerce. In Mexico, maritime trade moved 19% of exports and 36% of imports.

Figure 268: Exports by Transportation Method – 2% of Total Tonnage Is by Air

$ in bn



Source: INEGI. Note: 2024 shows data up to March.

Water

Mexico's total internal renewable water resources are 457 bn cubic meters per years in addition to 50 bn coming from neighboring countries. 65% of this surface runoff occurs in seven rivers: Grijalva, Usumacinta, Papaloapan, Coatzacoalcosm Balsas, Panuco, Santiago, and Tonala, whose total watershed area represents 22% of the country's total land expansion. It also shares three watersheds with the U.S. (Colorado, Bravo, and Tijuana), four with Guatemala (Grijalva, Usumacinta, Suchiate, and Coatan), and one with both Belize and Guatemala (Rio Hondo). **The historical mean annual precipitation is 750 mm, with most accruing between June and October.** However, droughts are highly frequent, particularly in the North and Center States of Chihuahua, Coahuila, and Durango, followed by Nuevo Leon, Zacatecas, San Luis Potosi, Aguascalientes, and Guanajuato.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 269: Watersheds of Mexico

Highlighted in black

Source: Data Basin.

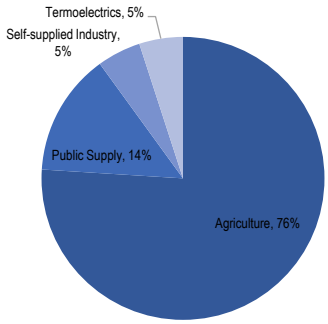
There are over 6,500 dams in Mexico of which 210 are large dams, which make up 85% of the total storage capacity. In the arid regions, dams are mostly used for irrigation. In the humid areas, dams are mostly used for electricity generation. Dams are also considered a means for flood protection in Mexico.

In addition, Mexico has seven major lakes with the most important being Chapala in between the states of Jalisco and Michoacan. Mexico has approximately 70 lakes with a storage capacity of 14 cubic km.

Total water withdrawals for consumptive use are 80 billion cubic meters (BCM) a year. The largest consumptive water user is agriculture (76%), followed by domestic use (14%) and industry (5%). Even though only ~18% of total water sources are withdrawn for consumptive use, there is water stress in several regions of the country. The highest pressure is encountered around Mexico City, Baja California, and Sonora. Distribution is an issue as water is more abundant in the sparsely populated South and scarce in the most densely populated areas such as the Center and North of the country. In fact, the latter two account for only a third of the country's renewable water sources despite concentrating ~80% of the population.

Figure 270: Use of Water by Sector

% of total water withdrawals for consumptive use



Source: CONAGUA.

It is estimated that 57% of the population lacks access to safe water, and Mexico has the highest consumption of bottled water per capita in the world. A lack of ongoing investments has slowed progress in getting access to safe water.

Significant strides have been made in terms of access to piped water supply, with urban areas now at 98% (vs. 88% in 1990) and rural areas at 89% (vs. 53% in 1990). Other achievements include the existence of a functioning national system to finance water and sanitation infrastructure with a National Water Commission (CONAGUA) as its apex institution. Challenges include water scarcity in the northern and central parts of the country, as mentioned above, inadequate water service quality, poor technical and commercial efficiency of most utilities, an insufficient share of wastewater receiving treatment, and **still inadequate access in rural areas.**

A potential water crisis has become more relevant this past two years. The National Water Commission (CONAGUA) is the Government agency that regulates water and has plans to invest $5 bn to address a potential water crisis in metropolitan areas that could soon face thirst and rationing due to draughts exacerbated by climate change. Many argue that there have been many years of poor planning with large urban expansions. Last year was Mexico's driest and hottest year in the past 70 years. In Mexico City, which has 7.2% of the country's population, the Cutzamala system (provides ~25% of the MCMA water) could drop to the 20% base line this year vs 38% last year and 45% in 2022. This would mean that it will no longer be able to provide water to the city once it is below 20%. Aquifers account for 68% of the city's fresh water and the Lerma System 8%. Some estimate that the extraction of the Lerma and Cutzamala systems is twice the size of replenishment.

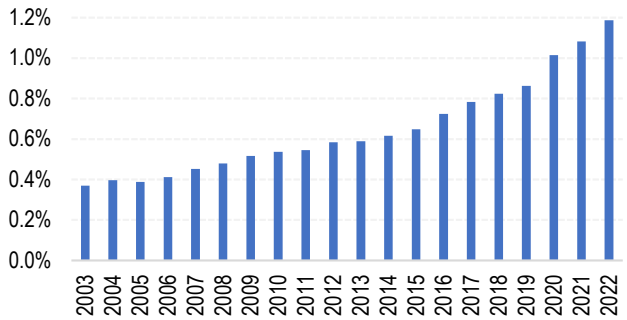
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Agriculture

Although an important sector for the country's economy both politically and historically, agriculture now accounts for only 1.2% of GDP (vs. 5% back in 1990, pre-NAFTA). Agriculture was the basis of the major Mesoamerican civilizations, which developed several domesticated plants such as corn, beans, tomatoes, cotton, avocados, cacao, and various spices. During the Colonial period, the Spanish introduced more plants and larger cattle while, from then until the Mexican Revolution, farming was focused on large private properties. Following the Revolution, these were broken up and land redistributed ("ejidos"). The "ejido" system remained intact until the 1990s, after which NAFTA and economic policies have again favored large, commercial-scale agricultural holdings. These changes have had uneven effects on the sector. In fact, until the late 1990s, Mexico was a net exporter of agricultural products, but today it is a net importer, mainly from the US.

Figure 271: Agriculture, Breeding and Exploitation of Animals, Forest Use, Fishing and Hunting Percentage of GDP

% of total GDP

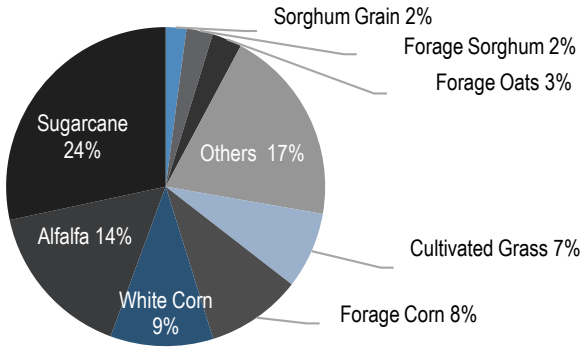


Source: INEGI.

Mexico's main agricultural products include sugarcane, alfalfa, white corn, forage corn, cultivated grass, forage oats, and sorghum grain and forage, which make up 69% of agricultural production. Commercial agricultural products mostly come from three areas in the country: the tropics in the Gulf of Mexico, Chiapas's highlands, and the north and northwest of the Bajío region.

Figure 272: Agricultural Production by Product

% of total

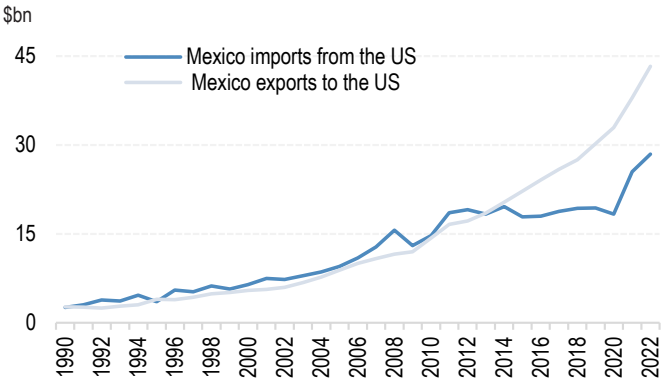


Source: INEGI.

Agricultural exports are important, with over 83% of Mexico's agricultural exports going to the US, consisting of vegetables, fruits, and beverages, while the main agricultural products imported from the US to Mexico are grains, oilseeds, meat, and related products, which made up 78% of the imports.

Figure 273: Historical Agricultural Imports vs. Exports

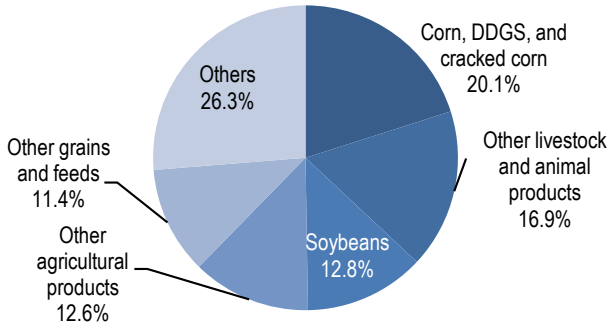
$bn



Source: USDA.

Figure 274: Mexico Imports from the US

% of imports

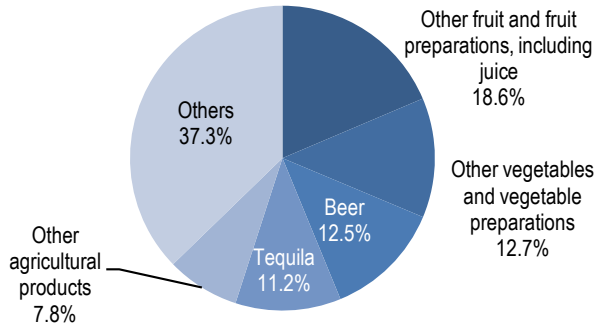


Source: USDA.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 275: Mexico Exports to the US

% of exports

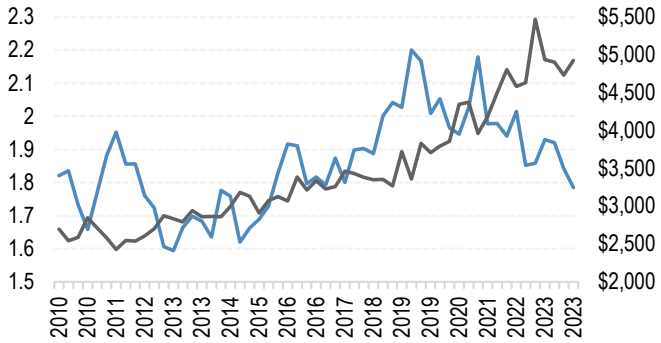


Source: USDA.

While depleting, Mexico's agricultural workforce is still significant. The sector employs 1.78mn people (3.0% of the total workforce). Traditional farming methods with small plots worked by families still dominate in many regions, especially those with large indigenous populations. New initiatives by President Lopez Obrador (such as the Production for Wellbeing program) have reduced subsidies to middle and large producers with the objective of increasing smaller scale production for national consumption.

Figure 276: Agricultural Workforce and Average Monthly Wage

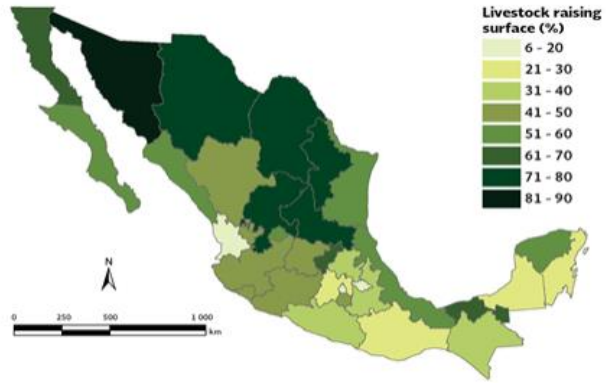
mn people, Ps$



Source: Ministry of Economy.

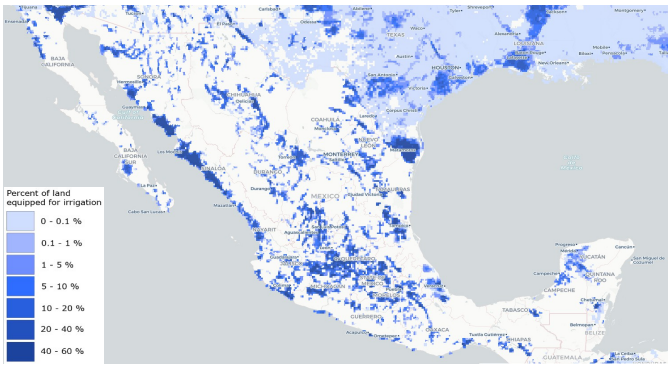
16% of Mexico's territory is dedicated to agricultural crops and 56% is used for livestock production. Climate and topography limits agricultural production to only 10.5% of the nation's territory, while 3.2% of national territory must be irrigated.

Figure 277: Livestock Raising Surface



Source: SEMARNAT.

Figure 278: Percent of Land Equipped for Irrigation

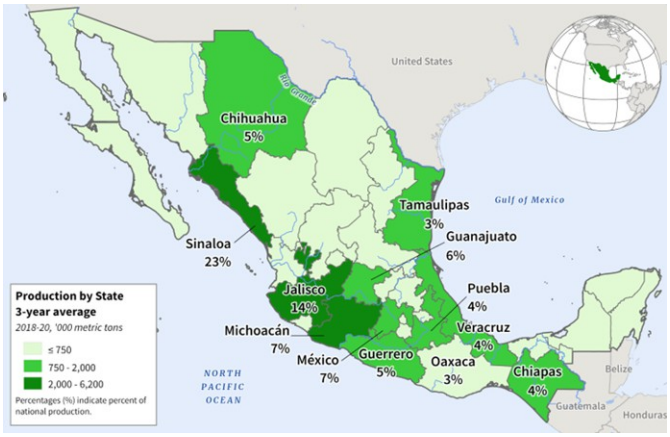


Source: CCA.

Corn is still the most important crop in Mexico, grown on 35% of its cropland and contributing ~10% of human calorie intake.

Figure 279: Mexico Corn Production

% of production



Source: USDA.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Mexico is self-sufficient in white corn production, which is mainly used for human consumption, but it imports large amounts of yellow corn, used to feed animals and for industrial processing.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Mining

Rodolfo de Angele [AC] ***and team***
(55-11) 4950-3888
rodolfo.r.angele@jpmorgan.com
Banco J.P. Morgan S.A.

One of Mexico's most important advantages is the great mineral richness of its territory. The existence of high-quality reservoirs favors the profitability of projects. 70% of the country's territory has potential for the development of mining projects thanks to a favorable geological evolution. The Mexican mining industry produces a total of 53 minerals (11 metallic and 42 non-metallic minerals), and its geological wealth includes a greater number of substances that can be exploited.

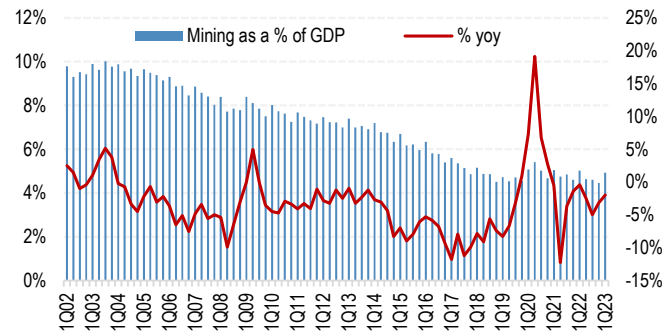
Figure 280: Minerals by Region

Source: Ministry of Economy.

Mining activities represented 4.9% of total GDP in 2023. However, mining GDP has been decreasing since 1994. The GDP for this sector has contracted -21% since 2000. Moreover, despite employment in the sector growing 51% since 2009, the sector only makes up 0.7% of the total workforce (vs. 10.8% for manufacturing, which is the largest).

Figure 281: Mining GDP / Total GDP

Mining Share GDP / % change yoy

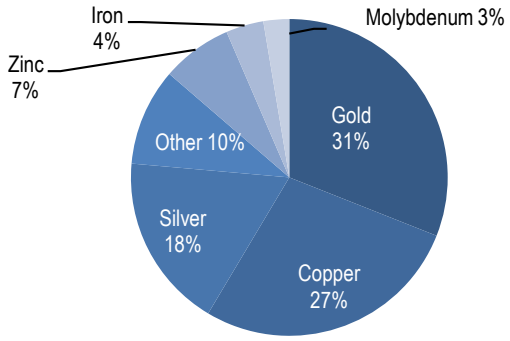


Source: INEGI. Note: Right axis is %yoy. Left axis is Mining as a % of GDP.

During 2023, four metals accounted for 83% of total production: gold represented 31%, followed by copper at 27%, silver at 18%, and zinc at 7%. The mining and metals industry production index decreased -4.4% y/y in 2024 vs. 2023, dragged by the government's policy of freezing new concessions as well as uncertainty due to new reforms. In fact, the index has been declining since early 2013 on lower investment likely related to regulatory uncertainty.

Figure 282: Mining Production by Mineral

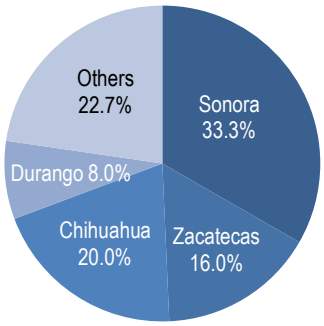
% of total mining production



Source: CAMIMEX.

Every state in Mexico participates in the mining industry, yet activity is highly concentrated in the northern part of Mexico. Sonora, Zacatecas, Chihuahua, and Durango together provide 77% of the value of domestic production.

Figure 283: Mining Production by State

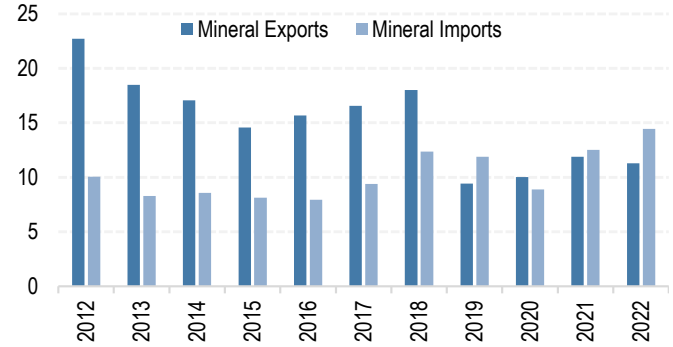


Source: INEGI.

Mineral/Metal exports were $11.3 bn in 2022, much lower than the $15-18 bn during 2013-18. Gold exports represented 23% of total exports value (first place), while copper was in second place at 29%. Silver is the third most important export with 18% of total mineral exports. Mineral exports go mainly to North America (45%), followed by China (19%) and Europe (7.8%). As for imports, they totaled $14.5 bn in 2022, up 15.5% from 2021, with copper the leading category.

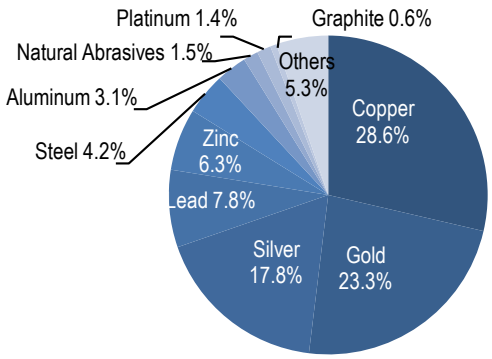
Figure 284: Mineral Export vs Imports

$ in bn



Source: CAMIMEX.

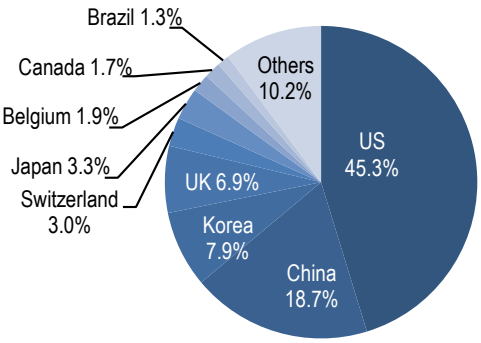
Figure 285: Exports by Type of Mineral



Source: CAMIMEX.

Figure 286: Mineral Exports by Country

as a % of total mineral exports



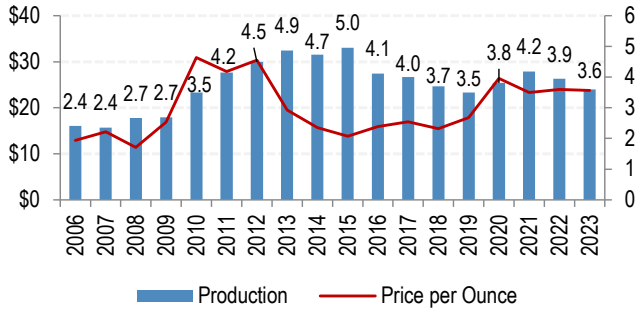
Source: CAMIMEX.

Mexico has a variety of reserves, being the fifth biggest in both copper and zinc. It has 3% of global gold reserves, 6% of copper, 6% of zinc, 7% of silver, and 7% of lead. It produces a variety of metals, where silver represents 18% and gold represents 31% (in value). However, Mexico is the largest silver producer in the world, with 24.2% of total world production during 2022 from 23.9% in 2021. Silver production in Mexico increased 1.3% vs. 2021. As for gold, Mexico made up 3.4% of total world production in 2022, making it the ninth largest producer in the world after China (10.3%), Russia (8.9%), Australia (8.6%), Canada (5.4%), the US (4.8%), Ghana, Peru, and Indonesia.

The main companies producing silver in the sector are Peñoles (37%), Newmont (22%), Pan American Silver (4.4%), and Grupo México (3.8%). The main companies producing gold are Peñoles through its subsidiary Fresnillo (20%), TorexGold (19%), and Agnico Eagle (7%).

Figure 287: Silver Production vs Price

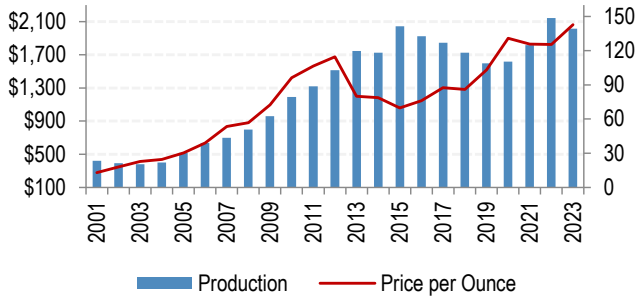
Production in thousand tons



Source: INEGI.

Figure 288: Gold Production vs Price

Production in tons



Source: INEGI.

Figure 289: Silver Projects Pipeline

Project	Firm	Onces in thousand	Initiation Date
Tehuehueto	Luca Mining	260	2023
Media Luna	Torex Gold	1,550	2024
Terronera	Endeavour Silver	2,900	2024
Metates	Chesapeake Gold	9,000	2025
Cordero	Discovery Metals	8,000	2025
La Preciosa	Avino Silver and Gold	9,636	N.D
Ixtaca	Almaden Minerals	5,400	N.D.
Total		**36,746**	

Source: CAMIMEX.

Figure 290: Gold Projects Pipeline

Project	Firm	Investment in (USD mn)	Initiation Date
Piritas (phase 2)	Fresnillo Plc	155	2023
Tehuehueto	Luca Mining	28	2023
Los Filos (expansion)	Equinox Gold	213	2023
Terronera	Endeavour Silver	175	2024
Cerro Caliche	Sonora Gold	26	2024
Cerro de Oro	Minera Alamos	28	2024
Fénix	McEwen Mining	42	2024
Media Luna	Torex Gold	875	2024
Los Ricos	GoGold Silver and Gold	125	2025
Rodeo	Fresnillo Plc	195	2025
Metates	Chesapeake Gold	359.2	2025
Cordero	Discovery Metals	455	2025
Orisyvo	Fresnillo Plc	500	2026
San Nicolás	Agnico Eagle-Teck	1100	2026
El Arco	Grupo México	3864	2030
Ixtaca	Almaden Minerals	174	N.D.
La Preciosa	Avino Silver and Gold	327	N.D.
Total		**8,641**	

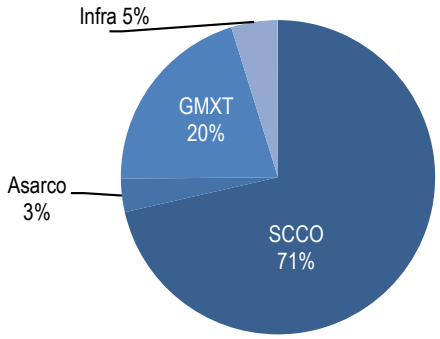
Source: CAMIMEX.

The AMLO administration implemented a mining reform seeking to tighten regulation in the sector. Among the most important changes, there was a reduction of the terms of concessions to 30 years, with the possibility of an additional 25-year extension. Granting of said concessions is now also subject to water availability.

Corporate sector

Grupo Mexico is one of Mexico's largest companies, with a market cap of $43.6 bn. The company is split into three main segments: mining, transportation, and infrastructure. Among those assets, Southern Copper (89.9% stake) and GMexico Transportes (70% stake) are the most relevant for valuation. (a) In mining, Grupo Mexico is the fourth largest copper producer worldwide, with the largest copper reserves. Also, the company is first in production in Mexico and Peru. The segment consists of its subsidiaries and affiliates: Americas mining corporation – AMC, Southern Copper, Asarco, and Minera Los Frailes. (b) On transportation, the company has the largest coverage and connectivity in Mexico with Ferromex, Ferrosur, and Imex and also has operations in two of the most important states in US with TexasPacífico and Florida East Coast Railway.

Figure 291: 71% of Grupo Mexico's EBITDA comes from SCCO



Source: Company reports and J.P. Morgan estimates.

Currently, around 65% and 71% of Grupo Mexico's revenues and EBITDA, respectively, come from Southern Copper (SCCO). The subsidiary is expected to produce around 948kt of copper on a annual basis, according to the company's latest guidance. In addition, the company should produce 26.1kt of molybdenum, 120.3kt of zinc, and 20Moz of silver. Copper accounts for 77% of SCCO's revenues.

Telecom & Media

Marcelo Santos [AC] and team
(55-11) 4950-3708
marcelo.p.santos@jpmorgan.com
Banco J.P. Morgan S.A.

During most of the early 1900s, when telecommunications services began in Mexico, two non-Mexican companies provided the fixed telephony service under government concessions: CTTM and Ericsson. In 1936, the government required these two companies to have their lines interconnected to increase the efficiency of the network.

Telmex (Telefonos de Mexico) was created in December 1947 with the transferring of Ericsson assets and concessions. Later in 1950, Telmex acquired CTTM, creating the sole telecommunications operator in Mexico. During the late 1950s Mexican Investors acquired the majority participation in Telmex, buying stakes from US companies including ITT. The federal government gained a majority participation in Telmex through a capital contribution in 1972.

In 1990 the government decided to privatize Telmex through a competitive bidding process in which both local and foreign groups participated. A group of investors leg by Carlos Slim won the bidding for the acquisition of Telmex, which at that time was 56% owned by the Mexican government. Telmex had 5.4mn fixed line users in 1990.

In 1984, Radiomovil Dipsa (Telcel) received the first concession to provide mobile telephony services in vehicles to makes calls with fixed subscribers within Mexico City. In 1989, there was a public invitation to any interested player to offer the service commercially, directly or through a concession holder. Iusacell was the first company to receive an authorization to exploit the service commercially in that year.

In 1998, Pegaso obtained a concession to exploit mobile services in the country. In 2000, Unefon got into the mobile business. In 2001, Telefonica acquired Pegaso and some of the concessions held by Motorola and became the second largest mobile operator in Mexico. Iusacell and Unefon were merged in 2007, which means that at that time there were four mobile carriers in the country. The MVNO model was introduced in 2007.

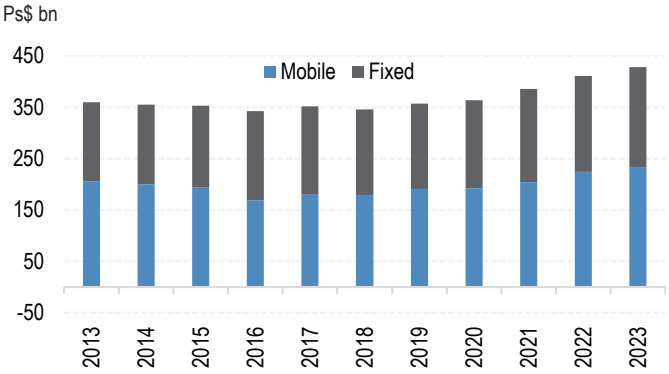
Telecom Reform

The Telecom Reform in Mexico was approved by congress in May 2013 under the Peña Nieto administration. The Reform contemplated (among others) the creation of the Federal Institute of Telecommunications (IFT, an autonomous entity), which among its several mandates included the establishment of asymmetric measures for players deemed as *preponderant* (those with control of +50% of the telecommunications and broadcasting market). Importantly, the decisions made by the IFT can only be retracted by judicial trial and cannot be suspended.

The Reform also contemplated the creation of a new Telecommunications Law that among other things established that the preponderant player could not charge its competitors for the use of its physical infrastructure (interconnection). Thus, América Móvil could not charge its competitors for said interconnection. This came to be known as a "zero tariff." Telmex and Telcel's competitors, however, were allowed by the same law to charge América Móvil affiliates a fee for the use of their physical infrastructure. This measure was later challenged in the courts by America Movil and went from a 0% charge to a fee established by the IFT.

AT&T entered the Mexican market soon after the establishment of the Reform through the acquisition of of Iusacell/ Unefón in November 2014 and Nextel in January 2015.

Figure 292: Telecommunications Service Revenues Mix – 53% comes from Mobile Services



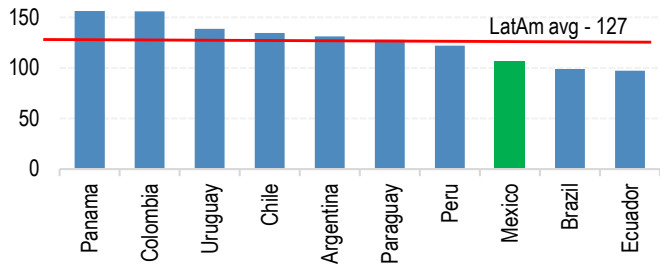
Source: Company reports and J.P. Morgan estimates.

Mobile Services

Mexico still ranks near the bottom of LatAm countries in mobile penetration. As of 2022, Mexico had 107 mobile subs per 100 inhabitants compared to the region's average of ~127.

Figure 293: Mobile Penetration in LatAm

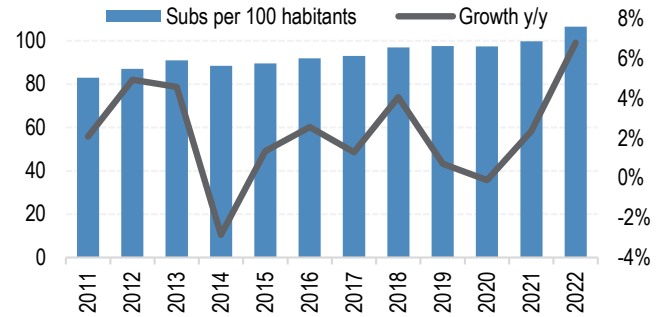
Active mobile lines per 100 habitants



Source: ITU.

Figure 294: Evolution of Mobile Penetration in Mexico

per 100 habitants

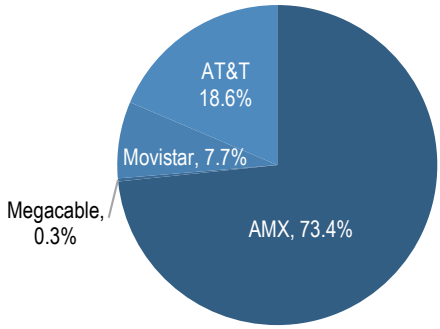


Source: ITU.

Before the implementation of the Telecom Reform, Mexico's mobile market was divided among fours main players: (1) Telcel, America Movil's mobile telephony service provider; (2) Movistar, a subsidiary of Telefonica; (3) Iusacell, which belonged to Grupo Salinas; and (4) Nextel, a former subsidiary of NII Holdings. In November 2014, AT&T (covered by Sebastiano C Petti) announced the acquisition of Iusacell and two months later Nextel. The entry of AT&T transformed the Mexican mobile market into a three-player market: (1) Telcel, (2) AT&T, and (3) Movistar.

Figure 295: Mexico Mobile Revenue Share

as % of Revenue, 2023

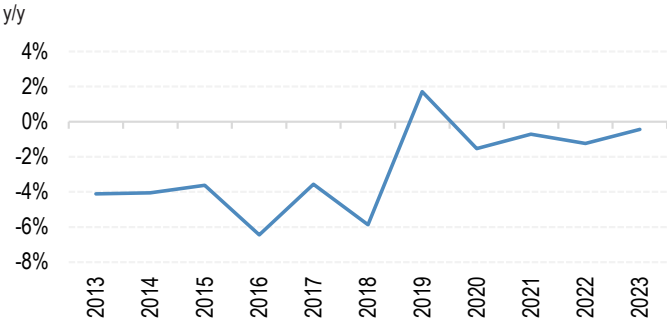


Source: Company reports and J.P. Morgan estimates.

After the Reform took place, there was a relevant decline in prices. As a result, there has been a move toward post-paid plans. As of 2022, post-paid represented 16% of total mobile subscriptions, which represented a 2.5% increase since the 2013 Telecom reform.

Figure 296: Mexico's market total revenue real growth

y/y



Source: Company reports and J.P. Morgan estimates.

The IFT has under its mandate the regulation, promotion, supervision, and exploitation of the electromagnetic spectrum including the economic conditions of auctions.

There are two components to the cost of spectrum in Mexico: 1) Reserve price: minimum price requested by the government to exploit the spectrum offered in an auction. This can be paid in installments or all at once. 2) Annual rights: Annual fee determined and collected by the federal government.

Mexico plans to hold a spectrum auction in 2025 to award additional spectrum for 5G services. IFT previously said it plans to offer spectrum in the 600 MHz and L-band blocks during the upcoming solicitation.

Figure 297: Historical Spectrum Holding by Carrier in Mexico

MHz	2017	2018	2019	2020	2021	2022	2023
Telcel	178	178	178	181	189	289	289
ATT	122	202	202	182	186	186	183
Telefonica (Movistar)	64	104	104	44	44	44	0
Altan	90	90	90	90	90	90	90
Total Industry	**454**	**574**	**574**	**497**	**510**	**610**	**562**

000 subs for every MHz	2017	2018	2019	2020	2021	2022	2023E
AMX	413	422	428	424	421	283	284
AT&T	122	88	92	102	107	114	116
Telefonica (Movistar)	384	246	242	564	519	504	na
Total Industry	**454**	**574**	**574**	**497**	**510**	**610**	**562**

Serv Rev for every MHz	2017	2018	2019	2020	2021	2022	2023E
AMX	674	709	762	764	784	560	590
AT&T	302	162	178	194	200	233	237
Telefonica (Movistar)	367	194	191	423	404	415	na
Market	**397**	**312**	**333**	**387**	**399**	**368**	**415**

Source: Company reports, IFT, and J.P. Morgan estimates.

Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

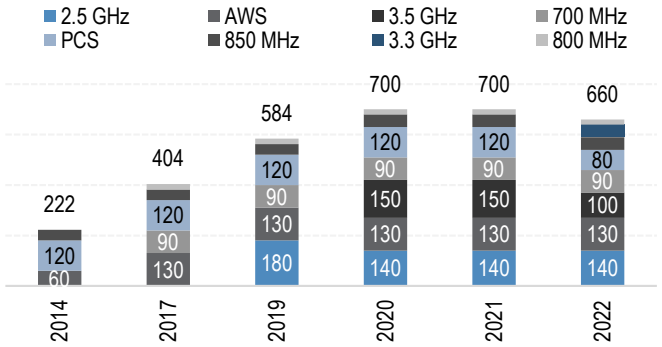
Figure 298: Latest Assigned Spectrum by Band per Player in Mexico

MHz of Spectrum Assigned as of June 2023

	Nominal			Adjusted by Population Covered		
	TELCEL	AT&T	ALTAN	TELCEL	AT&T	ALTAN
700 MHz	-	-	90			90
800 MHz	-	20	-		8	
850 MHz	32	19	-	21	16	
PCS	45	35	-	28	30	
AWS	81	49	-	80	49	
2.5 GHz	60	80	-	59	80	
3.3 GHz	50	-	-	50		
3.5 GHz	50	50	-	50	50	
Total	317	253	90	289	233	90

Source: IFT.

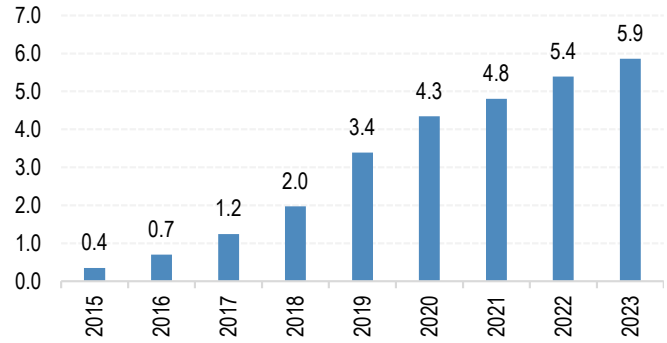
Figure 299: Assigned Spectrum Evolution in Mexico



Source: IFT.

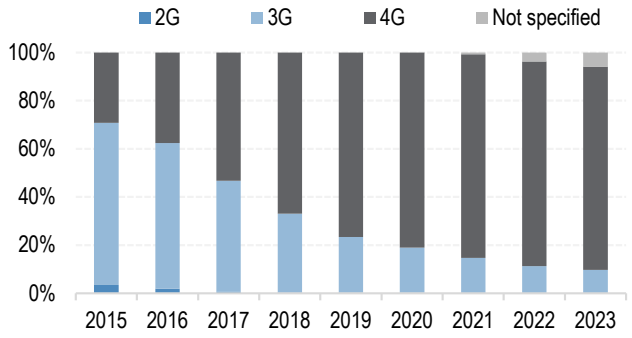
Figure 300: Historical Monthly Mobile Data Consumption

GB per mobile line per month



Source: IFT and J.P. Morgan.

Figure 301: Share of Mobile Data by Technology



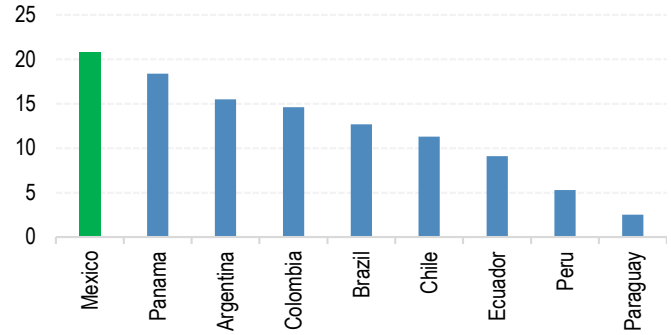
Source: IFT and J.P. Morgan.

Fixed Services

Mexico ranks as the top player in terms of fixed telephone penetration. Data from the International Telecommunication Union (ITU) shows that Mexico has 21 fixed broadband subscriptions per 100 habitants, more than the 12 LatAm average. The following leaders in the region are Panama and Argentina with 18 and 16 fixed-telephone subs per 100 habitants, respectively.

Figure 302: Fixed-Telephone Penetration in LatAm – Mexico leads

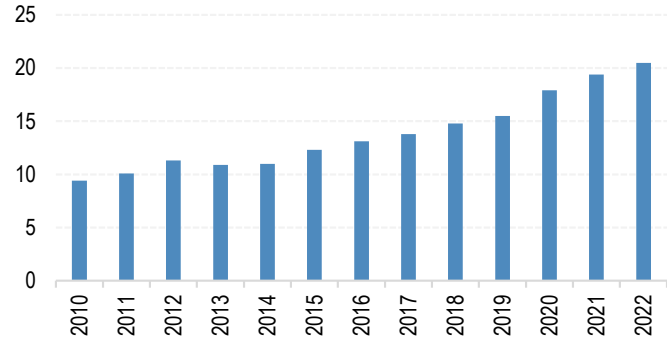
Subscriptions per 100 habitants



Source: ITU.

Figure 303: Fixed-Telephone Penetration Evolution in Mexico

Fixed Line per 100 Habitants



Source: ITU.

Mexico's fixed line telephone service was a federal government-owned business through state-owned Telefonos de Mexico (Telmex) until the end of 1987, when President Carlos Salinas enacted a communications reform that resulted in the privatization of Telmex and the surge of the mobile telephone market in Mexico.

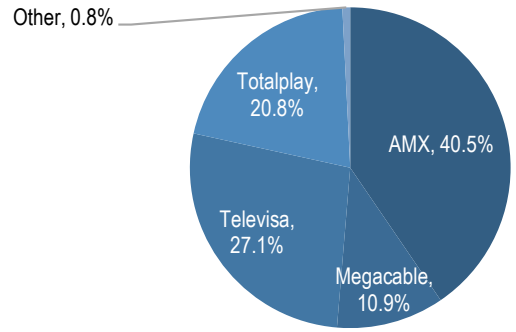
After its privatization in 1990, Telmex had monopolistic power over the fixed-line market. Over the years, the entrance of new competitors such as Telefonica, Axtel, and Televisa, among others, as well as the implementation of the telecom reform, led Telmex's market share to shrink. However, Telmex remains the dominant player in the industry.

America Movil (AMX, covered by Marcelo Santos) is Mexico largest Telecom player, emerging in 2000 from Telmex after its privatization. In 2011 AMX concluded its tender offer for Telmex's outstanding shares, thus delisting TMX from the US and Mexican exchanges while creating the leading telecom company in the region.

To limit America Movil's power, the IFT approved a plan to perform a functional separation of Telmex and Telnor's wholesale and retail operations. According to the regulator, this action was expected to grant all participants of the telecom market equal access to the infrastructure they need.

Figure 304: Mexico's Fixed Market Share

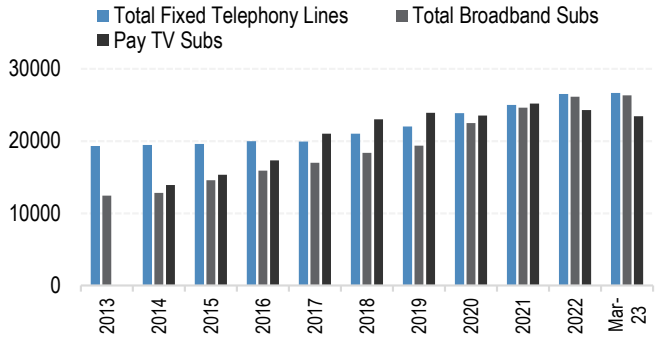
as % of Revenues



Source: Company reports and J.P. Morgan estimates.

Figure 305: Mexico Fixed Service Subscribers – PayTV Starting to Lose Ground

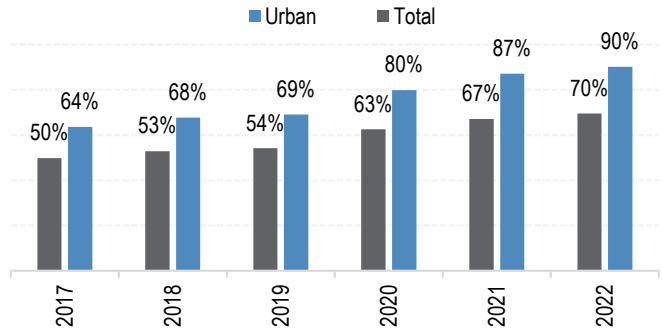
Thousands



Source: IFT.

Figure 306: Broadband Penetration

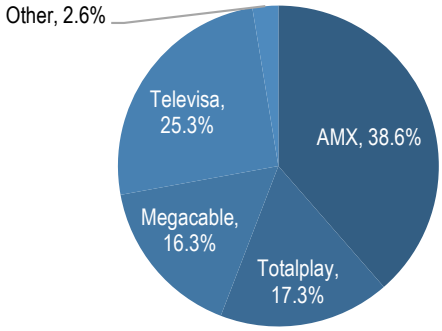
Residential broadband subs / household (urban/total)



Source: IFT and J.P. Morgan estimates.

Figure 307: Broadband Share

% of fixed broadband subscribers, Mar-23



Source: IFT and J.P. Morgan estimates.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

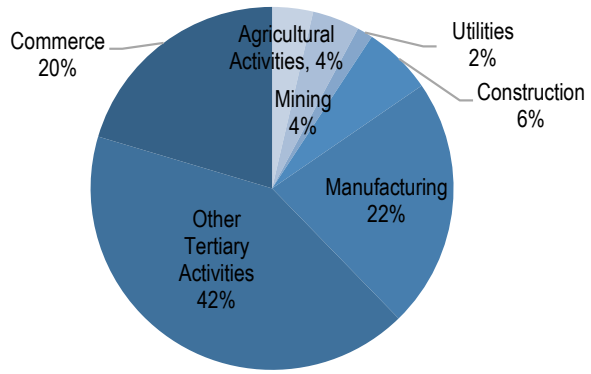
Construction

Adrian Huerta [AC] and team
(52-81) 8152-8720
adrian.huerta@jpmorgan.com
J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P Morgan Grupo Financiero

Construction is Mexico's fourth most important economic sector, making up 6.2% of GDP as of 2023 and employing 8% of Mexico's economically active population.

Figure 308: Supply-side 2023 GDP breakdown

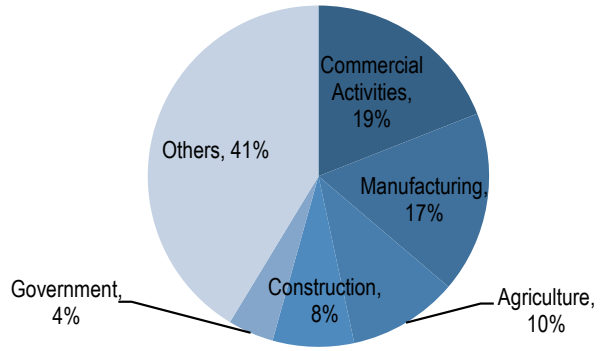
% of GDP



Source: INEGI.

Figure 309: Employment Breakdown by Sector

% of GDP

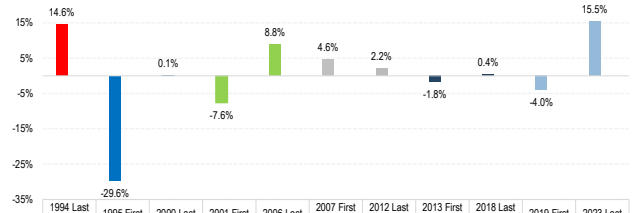


Source: INEGI.

Activity is cyclical and somewhat aligned to federal government transitions as the incumbent party tends to make large investments in the last year of the administration and the opposite occurs in the first year of a new administration, which is also impacted by a tough comp.

Figure 310: Construction Is Sensitive to Government Transitions

Avg of quarterly increases for each year



	1994 Last Year Salinas	1995 First Year Zedillo	2000 Last Year Zedillo	2001 First Year Fox	2006 Last Year Fox	2007 First Year Calderon	2012 Last Year Calderon	2013 First Year Peña Nieto	2018 Last Year Peña Nieto	2019 First Year AMLO	2023 Last Year AMLO
GPD y/y	14.6%	-29.6%	0.1%	-7.6%	8.8%	4.6%	2.2%	-1.8%	0.4%	-4.0%	15.5%
vols y/y	0	0	0	0	7.9%	1.7%	2.1%	-2.7%	-5.1%	-7.5%	0.2%

Source: INEGI. Vols data not available for 1994-2001.

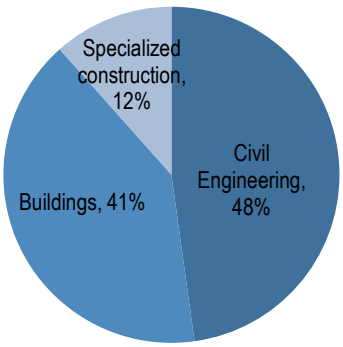
INEGI has two different classification breakdowns for construction activities, each independent from the other: (1) by type of construction and (2) by type of project.

The classification by **type of construction** has the following breakdown:

- **Edification** refers to the product of companies whose work is related to single and multi-family housing, non-residential construction, and supervision of construction of buildings.
- **Civil Engineering** refers to the product of companies whose work is related to the construction of water supply, oil, gas, and electricity, as well as work related to communications, including the division of land and urbanization, the construction of roads, and the supervision of construction of civil engineering works.
- **Specialized Construction** refers to the product of companies focused on supplying inputs to edification and civil engineering companies, including foundations, prefabricated structures, and masonry.

Figure 311: Construction value by Sector

As f Feb 2024



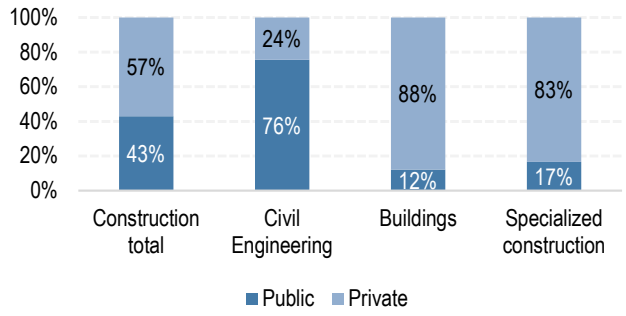
Source: INEGI.

There is a marked dominance of the public sector in civil engineering projects, while edification projects are engaged mostly by the private sector. **Roughly 76% of civil engineer-**

ing value come from public entities, while 88% of edification projects are funded by private resources.

Figure 312: Construction Sectors – Public vs Private

As of Feb 2024

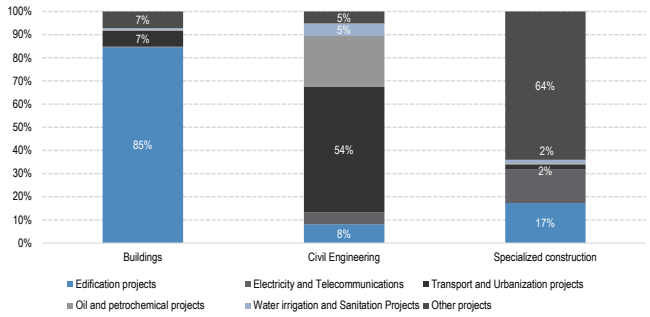


Source: INEGI.

The second classification involves a breakdown by type of project, which is explicitly made in INEGI's monthly construction companies' survey. This survey is taken on +3.5k companies that develop construction projects in the formal sector and is measured in current prices according to the projects' process during the polling month. The six **types of projects** are classified as follows:

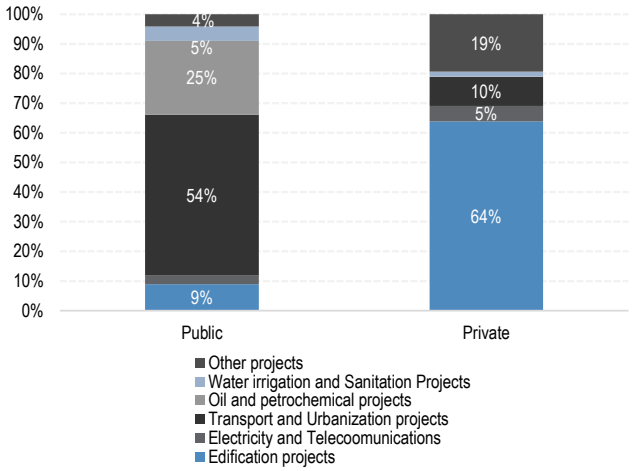
- **Edification Projects** include housing projects, commercial and service buildings, schools, hospitals, and auxiliary works. Edification projects represent 85% of the edification subsector, 8% of the civil engineering subsector, and 17% of the specialized construction subsector. Moreover, they account for 64% of the private sector's total construction value and 9% of the public sector's total.
- **Electricity and Telecommunications Projects** include projects for electricity generation and distribution, telecommunications, and auxiliary works. These projects account for 0% of the edification subsector, 5% of the civil engineering subsector, and 14% of the specialized construction subsector. They account for 5% of the private sector's total construction value and 3% of the public sector's total.
- **Transport and Urbanization Projects** include urban transportation projects, construction of highways, roads, and bridges, railway works, waterborne infrastructure, and auxiliary works. Transport and urbanization projects account for 7% of the edification subsector, 54% of the civil engineering subsector, and 2% of the specialized construction subsector. They account for 10% of the private sector's total construction value and 54% of the public sector's total.
- **Oil and Petrochemical Projects** include construction of refineries and oil plants, oil and gas pipelines, and auxiliary works. These projects represent 0% of the edification subsector, 22% of the civil engineering subsector, and 0% of the specialized construction subsector. They account for 0% of the private sector's total construction value and 25% of the public sector's total.
- **Other Projects** include installations in buildings, structure assembly, masonry works, and auxiliary works. They account for 7% of the edification subsector, 5% of the civil engineering subsector, and 64% of the specialized construction subsector.
- **Water, Irrigation, and Sanitation Projects** include potable water and sewage, dams and irrigation, and auxiliary works. These projects account for 1% of the edification subsector, 5% of the civil engineering subsector, and 2% of the specialized construction subsector. They account for 19% of the private sector's total construction value and 4% of the public sector's total.

Figure 313: Type of Construction by Type of Project



Source: INEGI.

Figure 314: Public vs Private Sector by Type of Project

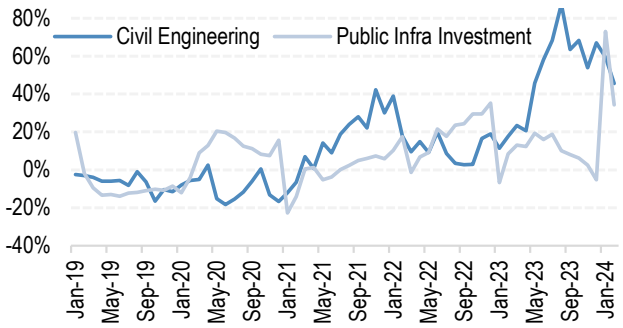


Source: INEGI.

Government expenditures maintain an important relationship with construction in the civil engineering subsector, which captures infrastructure projects, while private sec-

tor projects are also related to government spending dynamics, proving the multiplicative effect that public spending has on Mexico's real economy.

Figure 315: Government Spending vs Civil Engineering Construction



Source: INEGI. Note: %s are y/y growth.

Cement

Mexico's cement industry is made up of six players. Together they have a production capacity of ~66 mn mt through ~35 cement plants installed throughout the country.

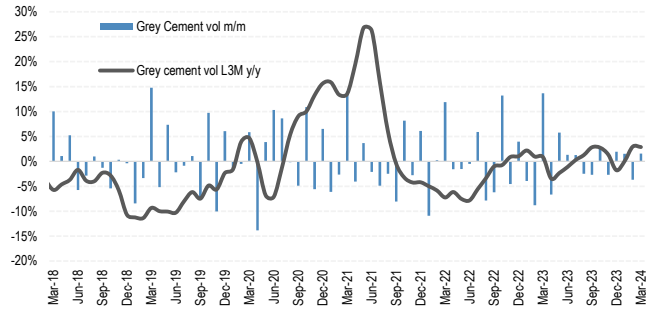
Table 17: Installed Capacity and Market Share

	Capacity	Mkt Share
Cemex	28.3	43%
LHN	13.3	20%
Moctezuma	8.0	12%
Cruz Azul	9.8	15%
Fortaleza	3.8	6%
GCC	2.5	4%
Capacity	**65.7**	
24e demand	41.7	
Implied Utilization	64%	

Source: Company reports and J.P. Morgan estimates.

Annual production of grey cement was 41.5 mn mt in 2023, meaning the industry's implied utilization rate stood at 64.5%, but we estimate that is much higher as there is significant idle/old capacity. Contrary to performance in other sectors, cement demand did well during the pandemic with vols up 6%/8% in 2020/2021, somewhat helped in 2020 by easy comps as infra demand was quite weak in 2019, explained by the entrance of a new President. Self-construction during the pandemic was a main demand driver. In 2022 we began to see a deceleration with vols -3.9%, while 2023 vols were flat driven by improvements in infra investments, both public and private.

Figure 316: Grey Cement Demand

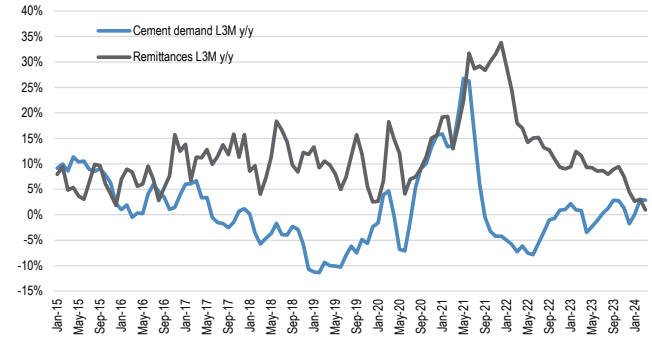


Source: INEGI.

Cement demand, especially bagged cement, usually has a high correlation with remittances. When the latter increases, cement sales tend to go up. Recently, the correlation has been less tight because there has been an increase in infra projects that are more closely related to bulk cement sales, but as per the chart below, they still follow similar trends. Keep in mind that informal construction makes up to 40% of total end-use demand.

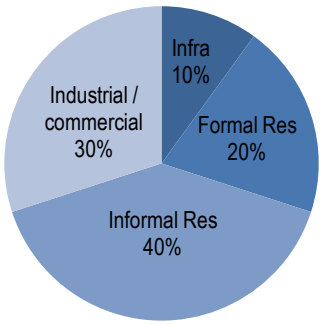
Figure 317: Cement Demand vs Remittances

L3M y/y



Source: INEGI and Banxico.

Figure 318: Cement Consumption from Informal Residential Segment Has the Largest Share

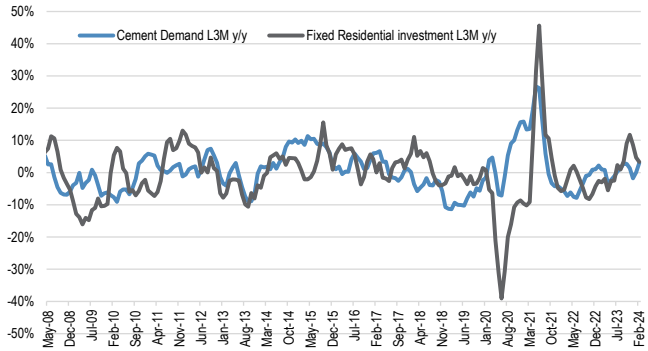


Source: CEMEX and J.P. Morgan estimates.

Cement sales and residential fixed investment are highly correlated as seen in the graphs below. However, at the end of 2023, the former grew 9% y/y while the latter posted a 2% decrease. The large drop in residential fixed investment in 2020 can be attributed to the pandemic and has returned to a normal pattern since then.

Figure 319: Cement Demand vs Fixed Residential Investment

L3M y/y

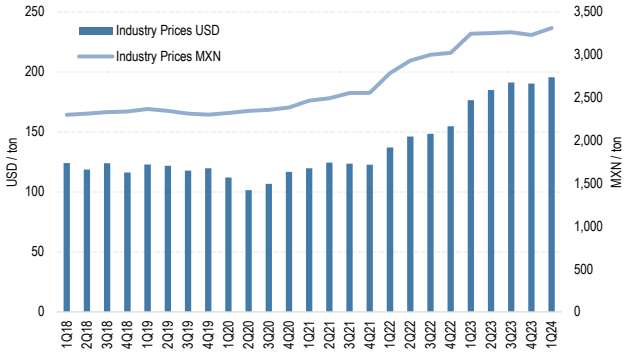


Source: INEGI.

Cement prices began accelerating in 2022, with a much larger than usual Jan increase, and with the same phenomenon occurring in 2023, which was in line with dynamics seen in other markets such as the US. Thus, for the past three years we have seen prices up 7%, 17%, and 11% in 2021, 2022, and 2023. For this year, we have seen a deceleration of the increases done early in the year, which makes sense as the increases in USD have been much larger with USD prices now at ~$200/ton.

Table 18: Mexico Cement Prices Evolution

USD/ton and Ps/ton



Source: INEGI and J.P. Morgan estimates.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Financials

Yuri R Fernandes [AC] and team
(1-212) 622-3400
yuri.r.fernandes@jpmorgan.com
J.P. Morgan Securities LLC

The banking sector in Mexico consists of 50 banks and is among the least penetrated in the region at ~21% banks to GDP ratio, only above Argentina. Notably, BBVA stands as the leading bank with ~25% loan market, followed by Banorte at ~15% share, and overall the top five banks control roughly 70% loan and deposit market share. See the table below for more details.

Figure 320: Loan Market Share

Total loans

	2011	2012	2013	2014	2015	2016	2017
Bancomer	25.4%	23.9%	23.5%	23.9%	23.4%	23.5%	22.7%
Banorte	15.4%	16.2%	16.0%	16.3%	15.7%	15.7%	15.4%
Banorte	*13.7%*	*14.2%*	*13.9%*	*13.8%*	*13.1%*	*13.1%*	*13.0%*
Interacciones	*1.8%*	*2.0%*	*2.1%*	*2.4%*	*2.5%*	*2.7%*	*2.5%*
Santander	12.7%	12.7%	13.0%	13.9%	14.3%	13.6%	13.0%
Banamex	16.0%	16.1%	15.8%	14.3%	14.7%	13.8%	14.1%
Scotiabank	4.7%	4.6%	4.9%	5.3%	5.6%	5.8%	6.7%
HSBC	7.6%	7.2%	6.7%	6.9%	6.4%	6.4%	6.7%
Inbursa	7.1%	6.4%	6.5%	6.0%	6.2%	6.5%	6.1%
Banco del Bajio	3.0%	3.0%	3.0%	2.9%	2.8%	2.9%	3.1%
Banregio	1.1%	1.2%	1.3%	1.5%	1.7%	1.8%	1.9%
Banco Azteca	1.6%	2.2%	2.0%	1.8%	1.4%	1.5%	1.6%
Gentera	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.5%
Other Banks	4.9%	5.8%	6.7%	6.7%	7.2%	7.7%	8.4%
System	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CNBV.

Figure 321: Loan Market Share (Cont'd)

Total loans

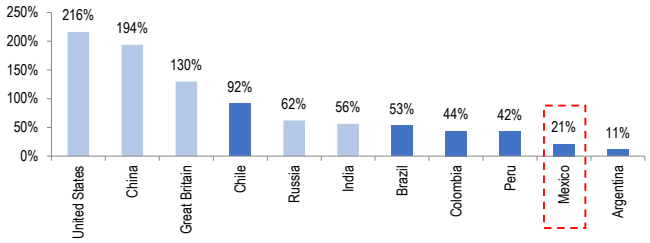
	2018	2019	2020	2021	2022	2023
Bancomer	22.4%	23.0%	23.5%	23.6%	24.3%	24.7%
Banorte	14.8%	14.0%	14.9%	14.6%	14.6%	14.6%
Banorte	*14.8%*	*14.0%*	*14.9%*	*14.6%*	*14.6%*	*14.6%*
Interacciones	-	-	-	-	-	-
Santander	13.2%	13.2%	13.3%	13.5%	13.0%	12.7%
Banamex	13.0%	12.1%	10.6%	9.9%	9.3%	9.0%
Scotiabank	7.1%	7.7%	7.8%	7.9%	8.0%	7.6%
HSBC	7.3%	7.4%	6.9%	7.0%	6.7%	6.9%
Inbursa	4.8%	4.6%	4.3%	4.5%	4.7%	5.2%
Banco del Bajio	3.3%	3.3%	3.8%	3.6%	3.6%	3.5%
Banregio	1.9%	2.0%	2.1%	2.1%	2.2%	2.3%
Banco Azteca	1.5%	1.7%	2.0%	2.2%	2.6%	2.5%
Gentera	0.5%	0.5%	0.4%	0.5%	0.5%	0.6%
Other Banks	10.2%	10.5%	10.5%	10.5%	10.4%	10.3%
System	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CNBV.

Credit penetration is low compared to regional peers and has been relatively stable in recent years, ranging between 20-22% since 2015. More specifically, credit penetration was impacted by the Tequila crisis and then gradually recovered from ~12% in the early 2000s to ~20% by 2015, stabilizing around those levels. Currently, penetration is among the lowest in the countries we cover in Latam, only above Argentina.

Figure 322: Credit Penetration (2023)

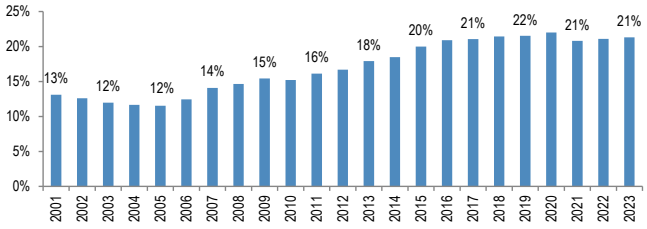
System Loans to GDP



Source: Local regulators for EM countries; US and UK as of 2022 based on World Bank data.

Figure 323: Mexico Credit Penetration Evolution – Total Loans

Total loans to GDP

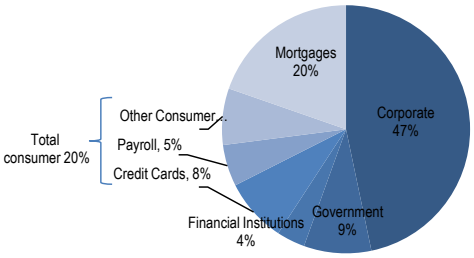


Source: CNBV.

When looking at specific segments, wholesale loans represent the bulk of the system's loan book. In particular, corporate loans are roughly 50% of total loans vs. consumer and mortgages representing ~20% of total each, while the remaining are loans to government and financial institutions.

Figure 324: System Loan Breakdown

% of total loans

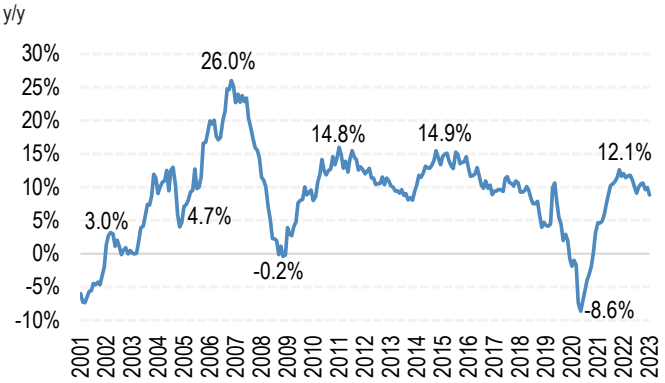


Source: CNBV.

Loan growth has been accelerating in recent years from a low base. Specifically, from 2019-2022 Mexican banks grew fairly in line with inflation, implying virtually zero real growth given overall volatile political and economic environments (including 2018 elections and Covid-19 pandemic). By late 2022, banks started reaccelerating growth and total loans grew ~12% Y-o-Y. In spite of some deceleration, loans kept growing at a good ~9% Y-o-Y pace in 2023. Moreover, retail loans have been growing faster, notably credit cards up ~20% Y-o-Y, which compares to commercial loans growing ~7% in 2023.

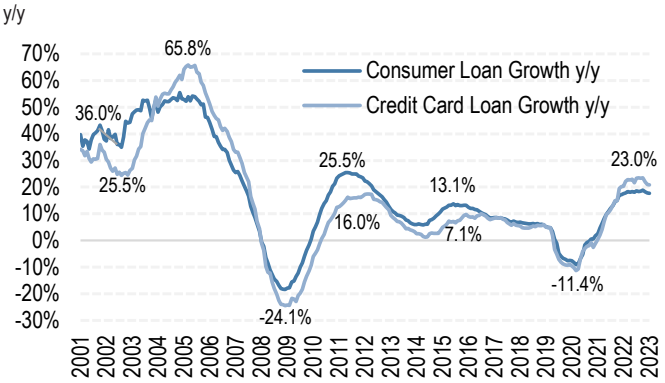
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 325: Total Loan Growth



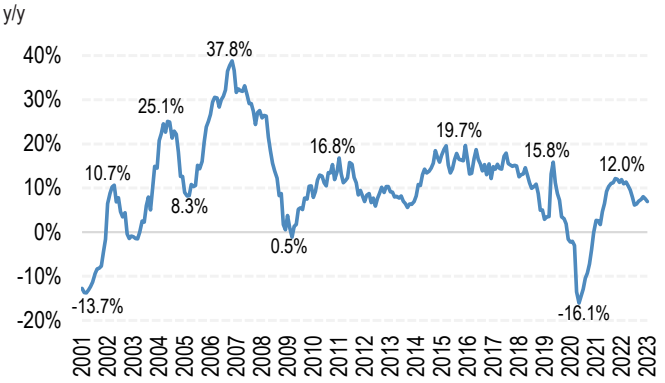
Source: CNBV.

Figure 326: Consumer and Credit Card Loans Growth



Source: CNBV.

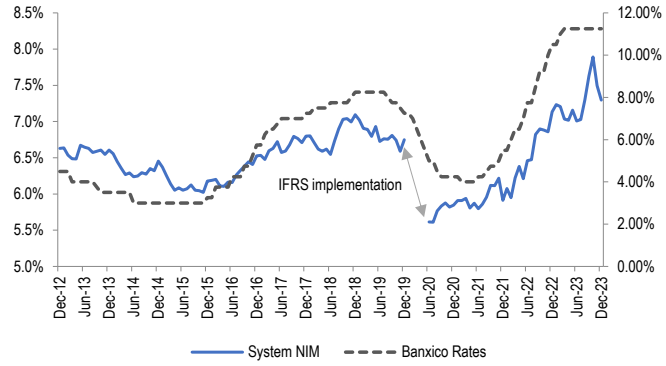
Figure 327: Commercial Loan Growth



Source: CNBV.

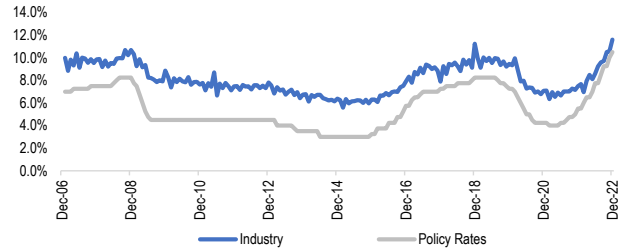
Banks tend to be asset sensitive, meaning that margins benefit from higher rates. Specifically, commercial and government loans tend to reprice with rates. Notably, in the last cycle the system's NIM (net interest margin) expanded ~150bps from mid 2021 (when rates bottomed at 4%) to Dec 2023 (when rates peaked at 11.25%).

Figure 328: Net Interest Margin vs. Policy Rates



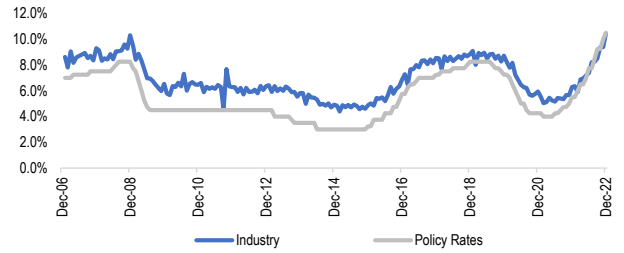
Source: CNBV. Policy rate on RHA

Figure 329: Commercial Loans Implied Yield vs. Policy Rates



Source: CNBV.

Figure 330: Government Loans Implied Yield vs. Policy Rates



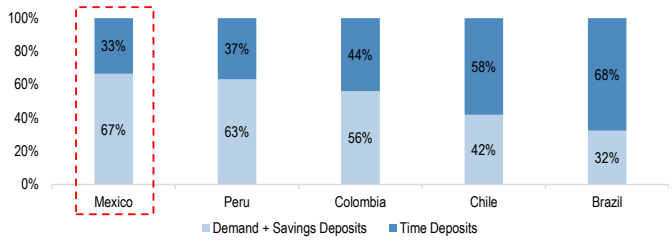
Source: CNBV.

Mexican banks have one of the best deposit mixes in the region with low-cost demand deposits representing over 65% of total. Notably, deposit costs have been increasing lately but still represent ~50% of policy rates at the system level, in line with the lower end of the historical 50-60% range. More specifically, BBVA and Banamex have the lowest funding costs at 30-40% of policy rates.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 331: Deposit Mix

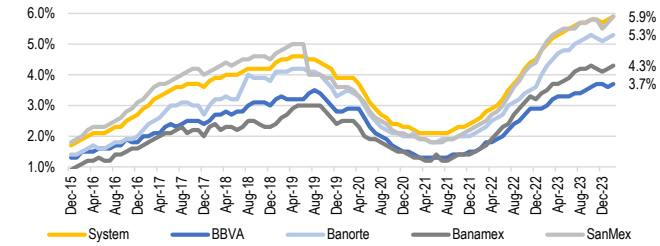
% of total deposits



Source: CNBV and local regulators.

Figure 332: Deposit Costs

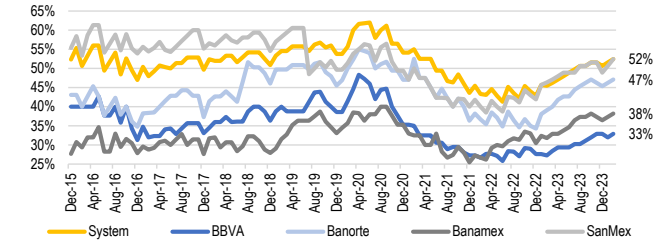
APR



Source: Banxico.

Figure 333: Deposit Costs as % of Policy Rates

Deposit cost APR / policy rates

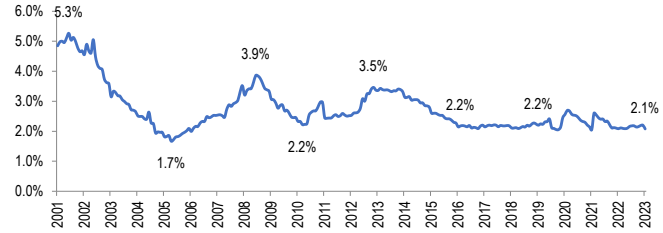


Source: Banxico.

Excluding a small Covid-19-driven cycle in 2020-2021, asset quality has remained behaved with NPLs around 2% levels since 2016. Moreover, banks built additional reserves in 2020, and since then the cost of risk has remained below historical levels. In our view this has been driven by a combination of low levels of loan growth in recent years (2020-2022 as mentioned above) coupled with NPLs remaining low. Notably, cost of risk started increasing in 2023, which was mainly driven by loan growth acceleration and mix shift toward consumer loans rather than by asset quality deterioration – and still below historical levels.

Figure 334: System NPL Ratio

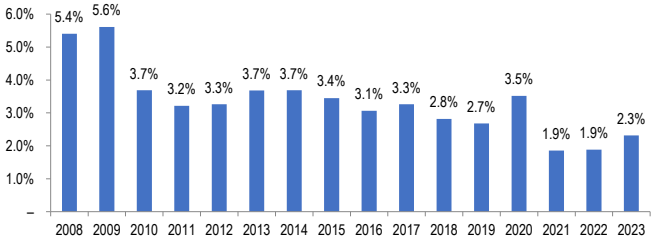
NPLs / Total Loans



Source: CNBV.

Figure 335: System Cost of Risk

Loan loss provisions / avg. loans

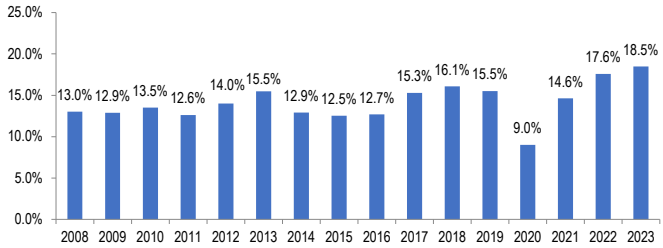


Source: CNBV.

The system ROE's historical average stands at 15-16%. As mentioned above, banks' margins have benefitted from higher rates in recent years, coupled with lower than historical cost of risk. As result, ROEs stood at 18-19% in 2022-2023, above historical levels.

Figure 336: System ROE

Return on equity



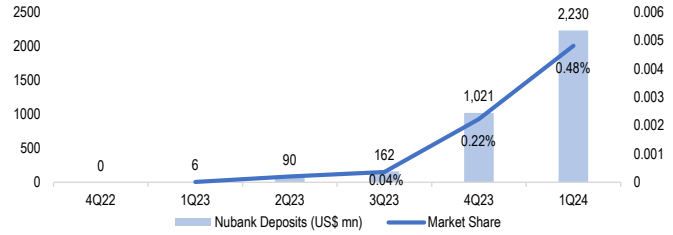
Source: CNBV.

Fintechs entering the country and competing for deposits has been a topic lately. Specifically, Nubank became more aggressive in late 2023 and in November started competing for deposits – e.g., launched 15% yields on deposits, above 11.25% policy rates at the time. Other peers followed, and while it remains small relative to the banking system, fintechs – notably Nubank – have been rapidly gaining share of deposits.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 337: Nubank Deposits and Market Share

$ in mn



Source: CNBV.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Retail & E-Commerce

Joseph Giordano [AC] and team
(55-11) 4950-3020
joseph.giordano@jpmorgan.com
Banco J.P. Morgan S.A.

Traditional Retail

Total retail sales in Mexico (ex-fuel and vehicles) reached Ps 3,826bn in 2023, growing 6% y/y, and represented 14% of GDP. Taking ANTAD (National Association of Retail Stores) plus Walmex Retail sales in Mexico as a proxy for formal retail, it represented 40% of total retail sales in Mexico in 2023 or Ps 1,538bn for 2023. In this context, formal retail has gained 9pp of share in the last seven years.

Walmex and Chedraui are the largest food retailers in Mexico with a revenue share of 23.2% for Walmex and 6.9% for Chedraui of total retail sales (formal + informal). Furthermore, all food retailers under our coverage have gained market share with the exception of Soriana, which lost 80 bps in 2021 vs 2020 and has remained stable at a 4.6% since.

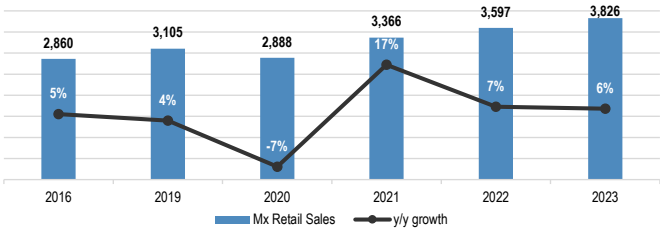
Figure 338: Mexico Retail Industry Summary

Ps in Bilion	2016	2019	2020	2021	2022	2023
Mx Retail Sales	**2,860**	**3,105**	**2,888**	**3,366**	**3,597**	**3,826**
in USD	153	161	134	166	179	216
y/y growth	5%	4%	-7%	17%	7%	6%
as % of GDP	12%	12%	13%	14%	14%	14%
Formal Retail	**878**	**1,105**	**1,081**	**1,250**	**1,417**	**1,538**
as % of retail	31%	36%	37%	37%	39%	40%
Coverd Co's	**2016**	**2019**	**2020**	**2021**	**2022**	**2023**
Walmex	532	647	702	736	819	887
Chedraui	89	129	146	188	259	263
Soriana	150	156	157	155	166	176
LaComer	15	22	27	29	33	38
Liverpool	88	127	101	137	159	175
TBBB	0	0	18	23	33	44
as % of retail sales	**2016**	**2019**	**2020**	**2021**	**2022**	**2023**
Walmex	18.6%	20.8%	24.3%	21.9%	22.8%	23.2%
Chedraui	3.1%	4.2%	5.1%	5.6%	7.2%	6.9%
Soriana	5.2%	5.0%	5.4%	4.6%	4.6%	4.6%
Liverpool	3.1%	4.1%	3.5%	4.1%	4.4%	4.6%
LaComer	0.5%	0.7%	0.9%	0.9%	0.9%	1.0%
TBBB	0.0%	0.0%	0.6%	0.7%	0.9%	1.2%

Source: Company reports and J.P. Morgan estimates.

Figure 339: Mexico Total Retail Sales Evolution

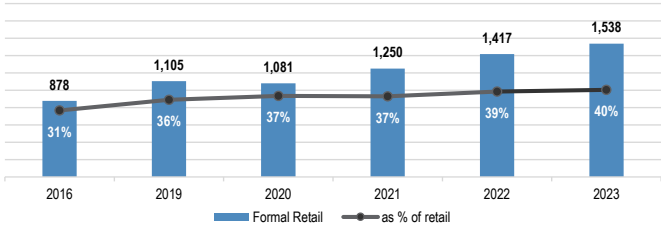
Ps in billion



Source: INEGI, J.P. Morgan.

Figure 340: Formal Retail Sales and Penetration

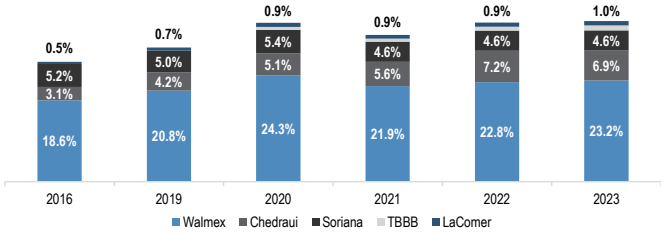
Ps in billions



Source: INEGI, J.P. Morgan.

Figure 341: Market Share per Company

as % of Total Retail Sales (ex auto & fuel)



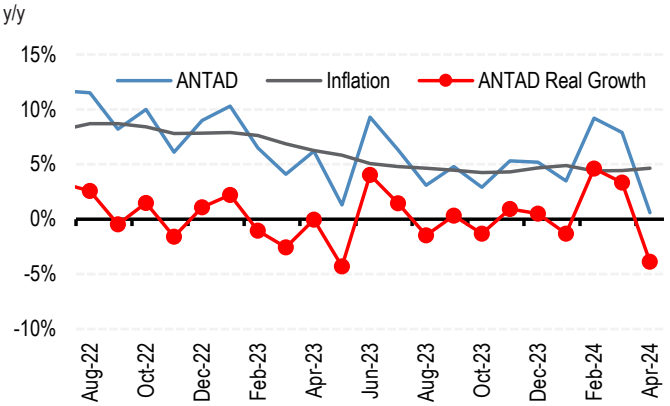
Source: INEGI, company reports, and J.P. Morgan.

One of the main and more timely indicators for retail sales growth in Mexico is ANTAD monthly SSS data, which provides insights into the growth evolution of the industry on a per store (Supermarkets, Department Stores, and Specialized Stores) and on a per merchandise (Supermarket products, Apparel, General Merchandise) basis. Also, it provides the Total Sales growth for the mentioned categories.

The latest ANTAD figures as of April 2024 show a slow start for 2Q24, with SSS at +0.6% (-3.9% y/y in real terms) decelerating 7.3pp vs March, which, in our view, is likely explained by a negative calendar in the Supermarkets segment while Department Stores' deceleration was likely beyond the calendar effect. Furthermore, ANTAD total sales were +3.5% in April following 11% growth in March. Overall, 2Q24 starts with a sluggish print that we expect to be offset with limited expected calendar impacts in May and June. In this context, ANTAD Supermarket segment growth would need to be 7.5% on average for May and June to reach the expected 6-7% in 2Q24E, which poses downside risks to expectations as it should be in line with the growth seen in months with favorable calendar effects

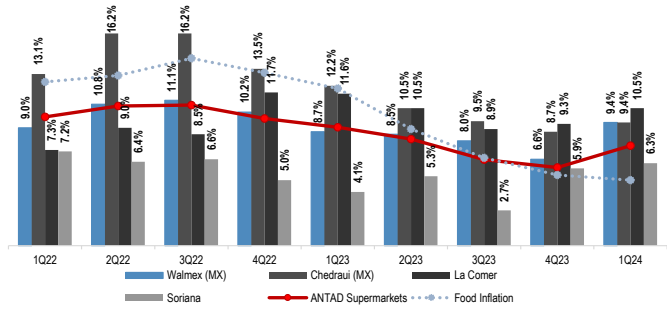
Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 342: ANTAD vs. Inflation



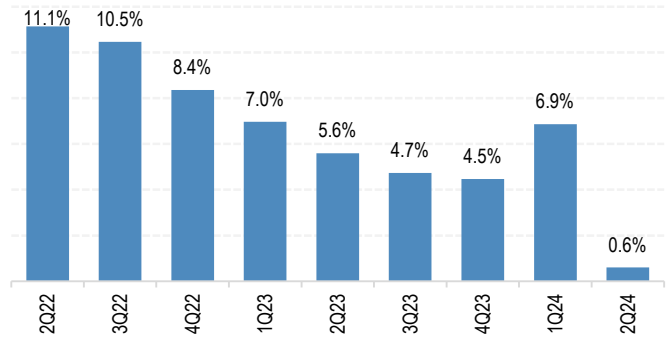
Source: ANTAD, J.P. Morgan.

Figure 343: Supermarket SSS (ANTAD) vs Covered Food Retailers



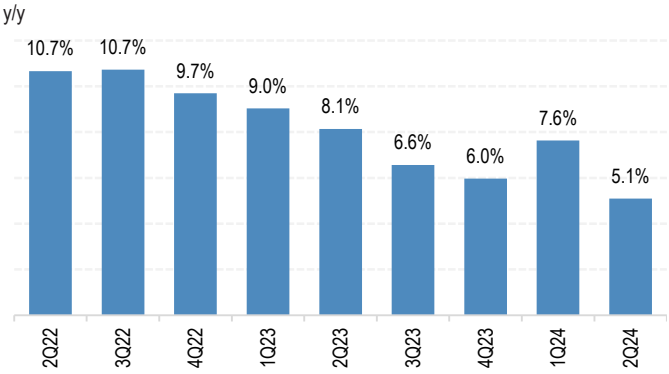
Source: ANTAD, company reports, and J.P. Morgan.

Figure 344: ANTAD Quarterly Evolution



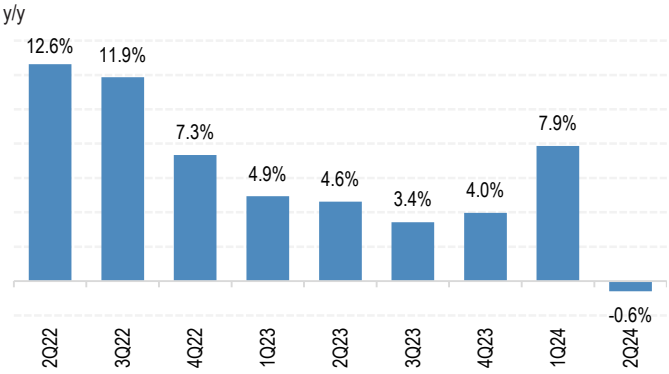
Source: ANTAD, J.P. Morgan.

Figure 345: ANTAD Supermarket Stores Quarterly Evolution



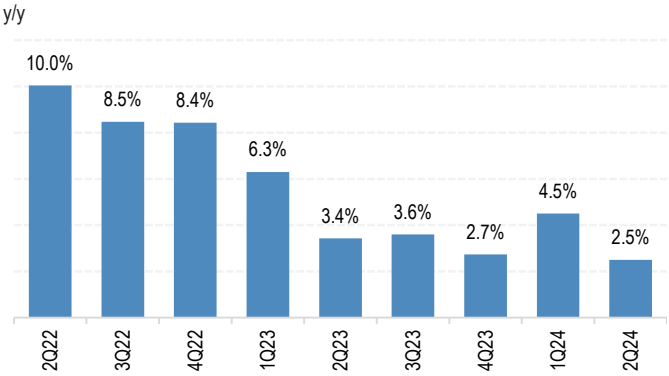
Source: ANTAD, J.P. Morgan.

Figure 346: ANTAD Department Stores Quarterly Evolution



Source: ANTAD, J.P. Morgan.

Figure 347: ANTAD Specialized Stores Quarterly Evolution



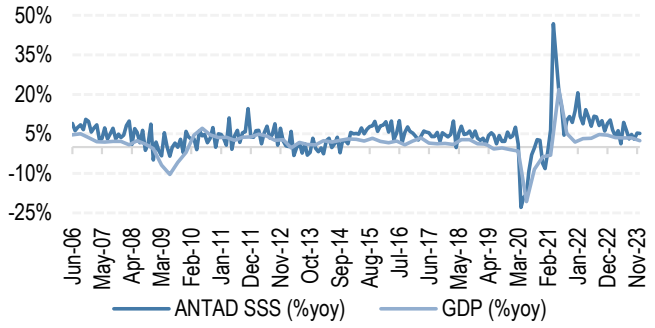
Source: ANTAD, J.P. Morgan.

Consumption Drivers Remain Strong

Compared to key consumption indicators, even though April ANTAD data was weak, we see strong drivers for consumption to remain at healthy levels, with remittances and Consumer Confidence at historical highs, as well as minimum wage growth y/y well above F&B inflation and general inflation (min. wage at 20% y/y, vs. 5.8% y/y for F&B inflation and 4.7% y/y for CPI). Consumer leverage remains at healthy

levels with NPL levels at historical lows. Thus, credit offering should also remain a key supporter for consumption ahead.

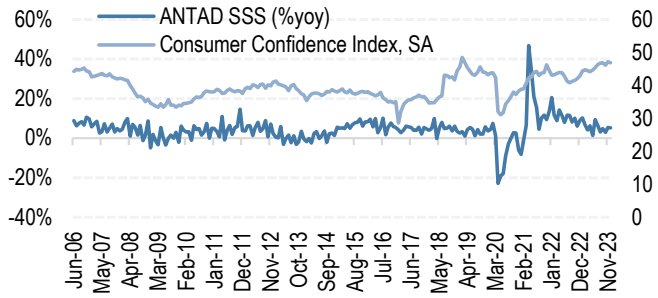
Figure 348: ANTAD SSS vs GDP Growth



Source: ANTAD, INEGI, and J.P. Morgan.

Figure 349: ANTAD SSS vs. Consumer Confidence

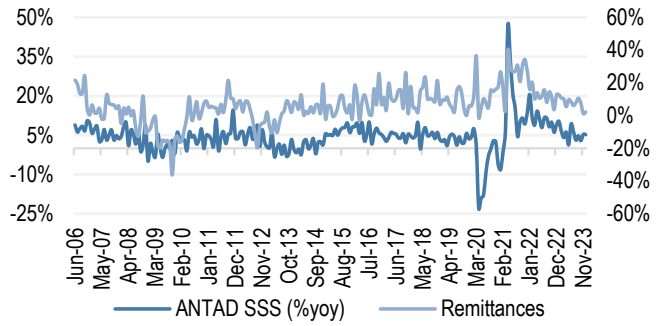
y/y, Consumer Confidence Index (RHS)



Source: Bloomberg Finance L.P., J.P. Morgan.

Figure 350: ANTAD SSS vs. Remittances

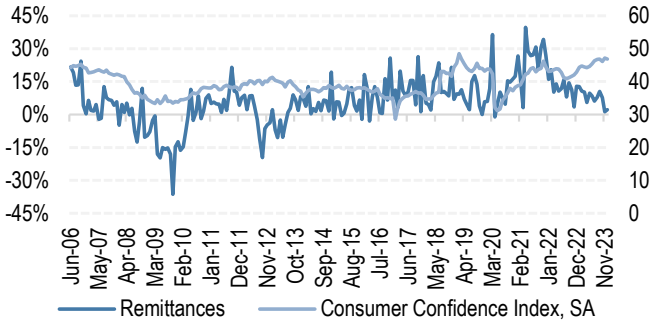
y/y, remittances (RHS)



Source: Bloomberg Finance L.P.,J.P. Morgan.

Figure 351: Remittances vs. Consumer Confidence

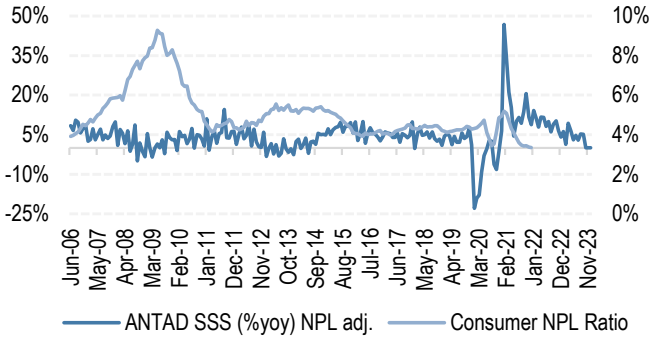
y/y, Index



Source: Bloomberg Finance L.P., J.P. Morgan.

Figure 352: ANTAD SSS vs. NPL Ratio

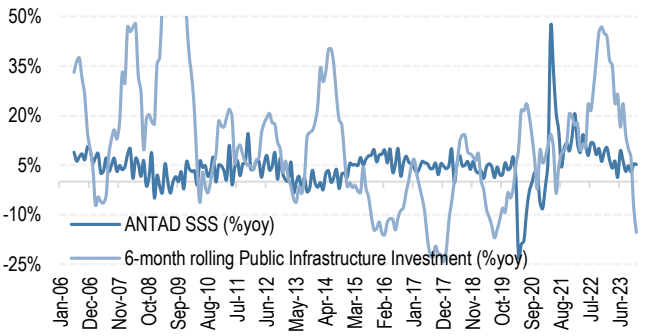
y/y



Source: Bloomberg Finance L.P. , J.P. Morgan.

Figure 353: ANTAD vs. 6-Month Rolling Public Infrastructure Investment

y/y



Source: Bloomberg Finance L.P. , J.P. Morgan.

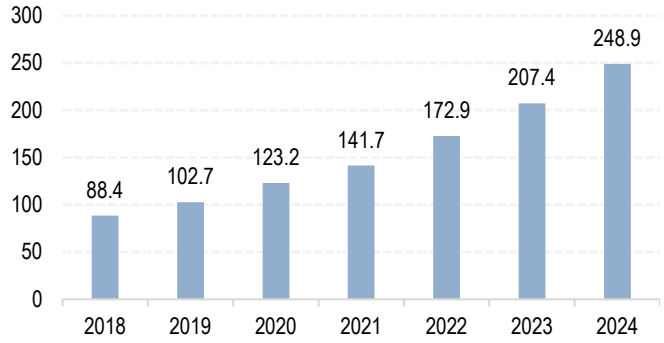
Minimum wage has more than doubled in the past 4 years

The minimum wage has increased 102% since 2020 to Ps248 per day while, this is c.60% growth in real terms. This, in our view, has driven a boost to consumption, while food retailers have been able to offset this incremental cost (labor is c.35% of total expenses on average for a food retailer) through pric-

ing and cost efficiencies.

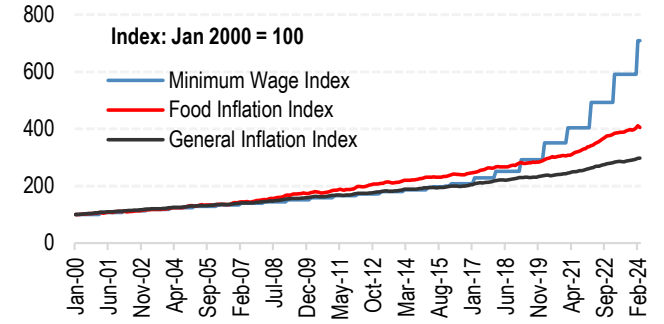
Figure 354: Minimum Wage in Mexico

Ps per day



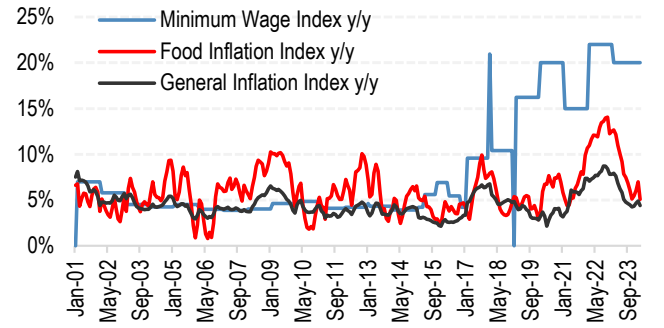
Source: CONSAMI.

Figure 355: Minimum Wage vs. F&B Inflation and CPI Index



Source: Banxico.

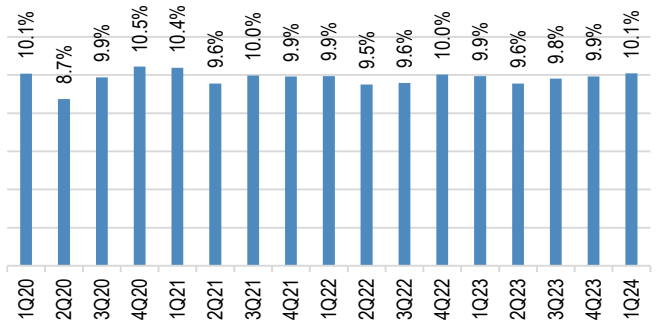
Figure 356: Minimum Wage vs. F&B Inflation and CPI Index y/y



Source: Banxico.

Figure 357: EBITDA Margin for Covered Food Retailers

EBITDA (Walmex + Soriana + Chedraui + La Comer) as % of Net Revenues



Source: Company reports and J.P. Morgan.

E-commerce

Mexico E-Commerce sales, according to the AMVO (Mexican Association of Online Sales), represents 13% of total retail sales in Mexico and has been growing at a 38% CAGR since 2019, which is one of the fastest paces globally.

Figure 358: Mexico E-Commerce Industry Summary

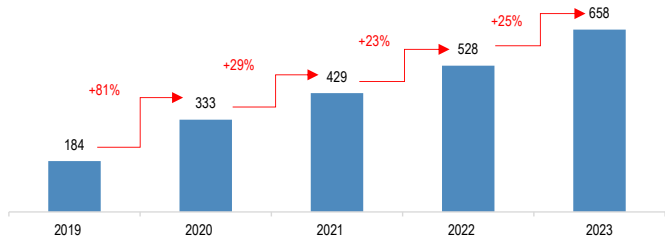
Ps in Billion	2016	2019	2020	2021	2022	2023
E-Commerce GMV	na	184	333	429	528	658
in USD	0	10	16	21	26	37
y/y growth	na	na	81%	29%	23%	25%
Penetration (Tot. Retail)	na	4.2%	8.2%	9.1%	10.4%	12.5%
Covered Co's - GMV	**2016**	**2019**	**2020**	**2021**	**2022**	**2023**
Walmex	na	na	na	na	35	41
Liverpool	na	na	na	na	37	45
Mercado Libre	9	38	77	112	140	184
Amazon (JPMe)	na	na	na	na	119	158
E-Commerce Mkt Share	**2016**	**2019**	**2020**	**2021**	**2022**	**2023**
Walmex	na	na	na	na	7%	6%
Liverpool	na	na	na	na	7%	7%
Mercado Libre	na	21%	23%	26%	27%	28%
Amazon (JPMe)	na	na	na	na	23%	24%
Other	na	na	na	na	37%	35%

Source: AMVO, INEGI, company reports, and J.P. Morgan. GMV stands for gross merchandise value.

E-Commerce in Mexico has continued to grow, with online sales growing by 25% y/y vs. 2022. Food delivery, fashion, electronics, and HPC are the categories with higher e-commerce penetration levels, with home delivery being the preferred delivery method.

Figure 359: Online Sales evolution per year

Ps billion

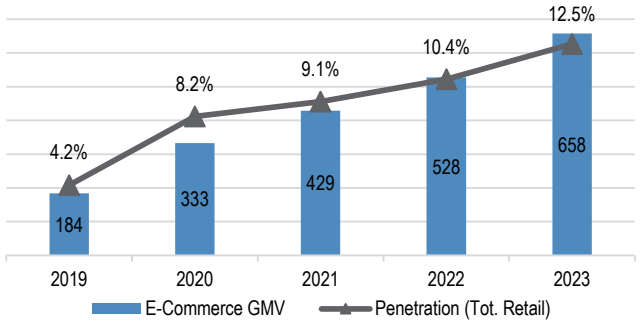


Source: AMVO, J.P. Morgan.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

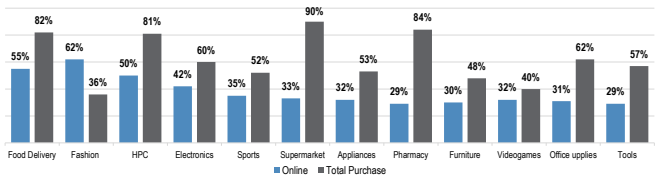
Figure 360: E-Commerce Penetration Evolution in Mexico

as % of Total Retail Sales



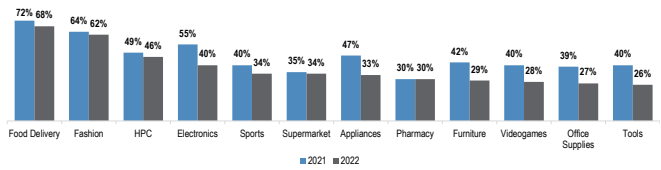
Source: AMVO, INEGI, and J.P. Morgan.

Figure 361: E-Commerce Penetration per Category



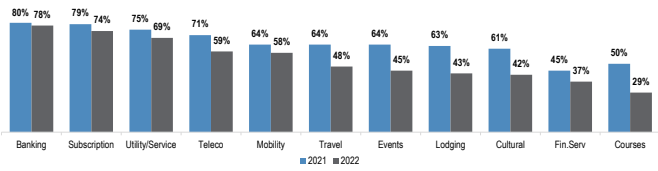
Source: AMVO, J.P. Morgan.

Figure 362: Preferred Product Categories for Online Shopping



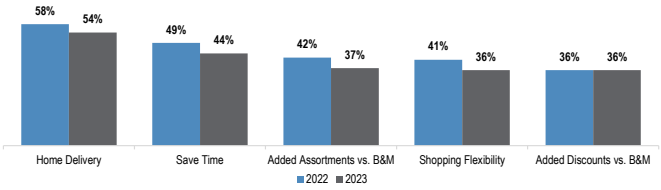
Source: AMVO, J.P. Morgan.

Figure 363: Preferred Service Categories for Online Shopping



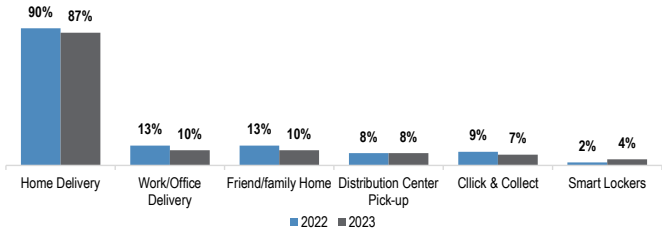
Source: AMVO, J.P. Morgan.

Figure 364: Key Reason for MX Consumers to Shop Online



Source: AMVO, J.P. Morgan.

Figure 365: Preferred Delivery Method

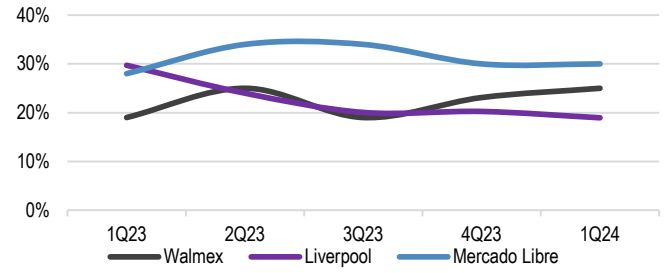


Source: AMVO, J.P. Morgan.

E-Commerce Growth for Covered Companies

Based on the AMVO (Mexican Association of E-Commerce) GMV estimate for 2023, Mercado Libre would command a 28% market share vs. 6.9% for Liverpool and 6.2% for Walmex. Thus, 59% market share is held by other players in 2023. However, we believe that Amazon Mexico is c.3-5pp smaller than Mercado Libre in Mexico, which would imply that 40% of Other comes from Amazon. Considering Walmex's view of having 6.6% of the Mexico E-Commerce market in 1Q24 would imply that MELI held 33% market share and Liverpool 6.1%.

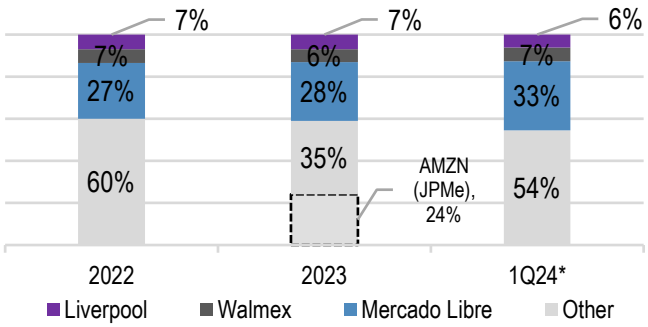
Figure 366: GMV growth



Source: Company reports, J.P. Morgan, and AMVO.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Figure 367: Mexico GMV Market Share



Source: Company reports, J.P. Morgan, AMVO. *1Q24 market GMV based on Walmex disclosure

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

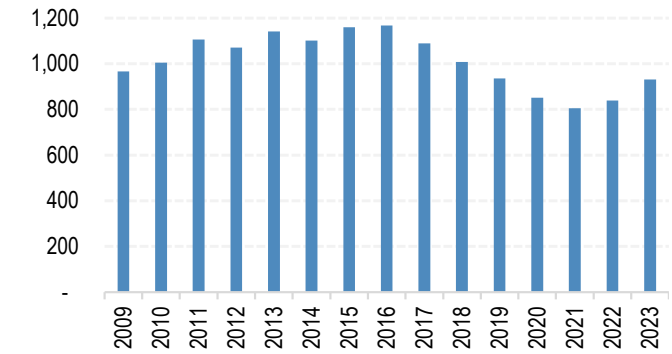
Real Estate & Housing

Adrian Huerta [AC] and team
(52-81) 8152-8720
adrian.huerta@jpmorgan.com
J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P Morgan Grupo Financiero

Housing

According to the SHF (Sociedad Hipotecaria Federal), housing demand in Mexico is down vs pre-pandemic levels due to economic uncertainty around inflation and rates, with the average interest rate for mortgages in 2023 at 11.5%. The SHF estimates that 931k households searched for housing credit during 2023, +11% vs 2022 but still flat vs pre-pandemic levels. Bear in mind that only ~30% of these searches are for the acquisition of a new home, 22% for existing homes, and the rest, or the majority, for home improvement.

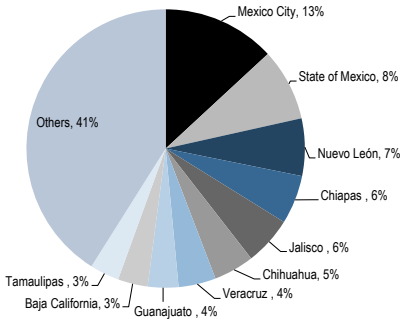
Figure 368: Demand from housing needs at pre-pandemic levels



Source: SHF.

Based on SHF's credit origination estimates, more than 50% of housing demand is concentrated in eight of the 32 states in the country. The highest concentration of housing demand is in Mexico City, which accounts for 13% followed by the State of Mexico at 8% and Nuevo Leon with 7%.

Figure 369: Housing Demand per State

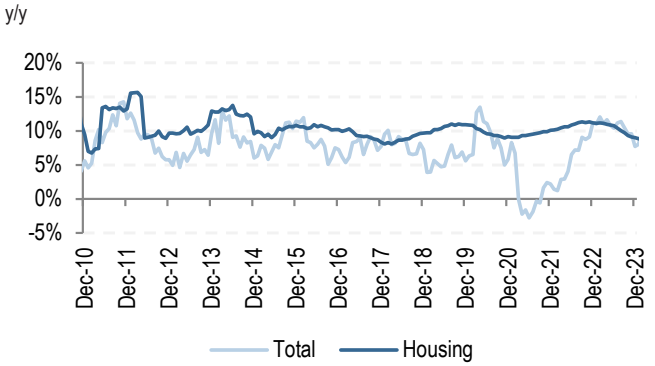


Source: SHF. Note: Estimates for 2023

According to the latest National Survey of Household Income and Expenditure (ENIGH Survey for 2022), 8% of houses are 0-5 years old, 32% of houses are 26+ years, while 22% are 6-15 years old. The latest census data indicates that the homes in Mexico are estimated to have 3.8 rooms and 2.1 bedrooms. Also, 3% of houses are reported to have dirt floors and 77% of houses are reported to have access to water inside the house and 16% outside the house but within their property bounds. Moreover and according to the 2020 population census, **uninhabited houses are 14% of the total**, which can be explained by the population's tendency to migrate to urban centers, to be far from work, and to have little to no access to public services and infrastructure. In rural zones abandoned houses account for 20% of the total. House abandonment is a concern both for the government and home developers as people who abandon their houses also typically default on the loans taken to purchase those properties.

Commercial bank credit to the housing sector grew at a 10.4% CAGR from 2010 to 2023, above overall credit growth, which has grown at a 7.6% CAGR during the same period. Out of all internal private financing, commercial banks represent 14% of total (only on loans for housing), while Infonavit and Fovissste represent 18% and 4%, with no material changes in this trend since 2008.

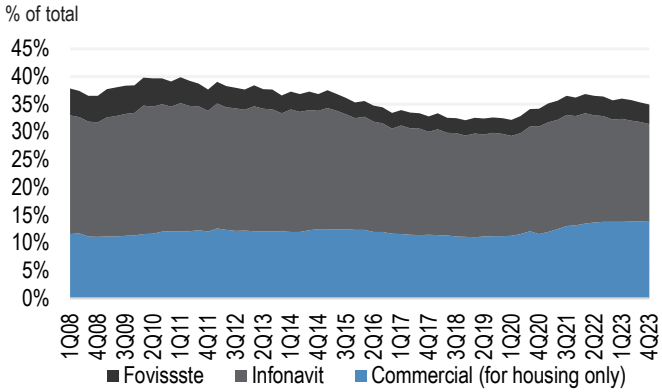
Figure 370: Credit Growth – Housing vs Total



Source: Banxico.

As of December 2023, housing credit (commercial banks, Infonavit, and Fovissste) of Ps1,817 bn represented 29% of the total retail credit portfolio and also accounts for 15% of total loans for the banking system. In the past, many changes were made to develop financing channels for the housing sector, with government participation via institutions such as FOVISSSTE, Infonavit, or SHF playing a key role in developing this market. Infonavit is an autonomous institution that provides entry-level mortgages, especially to lower income families in the private sector. Public sector workers are served by FOVISSSTE. As of 1Q24, Infonavit and FOVISSSTE accounted for 17.6% and 3.5% of total private internal financing vs 14% for commercial banks (housing loans only).

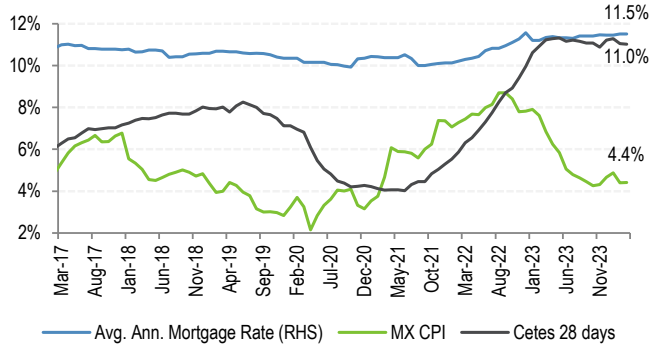
Figure 371: Domestic Private Financing by Institution



Source: Banxico.

Average annual mortgage rates in Mexico stood at 11.46% as of Dec 2023, virtually the same as in Dec 2022, but at a peak vs 2013-2022. Note that mortgage rates are not much related to benchmark rates. Since 2008, mortgage rates have fluctuated at ~10-13%

Figure 372: Avg Mortgage Rates vs Inflation and Cetes (28 days)



Source: Banxico.

New housing inventory in Mexico amounted to 195k units as of Dec 2023. The RUV (Registro Unico de Vivienda) classifies housing units in four broad categories depending on price levels. The Affordable segment represents 44% of the total new housing inventory while the Medium-Residential segment is only 5% of the total. The highest priced sub-segment is called Residential Plus. Prices for the different segments vary significantly, with affordable housing at a maximum price of Ps389k, while residential and residential plus are at Ps4.9 mn or above.

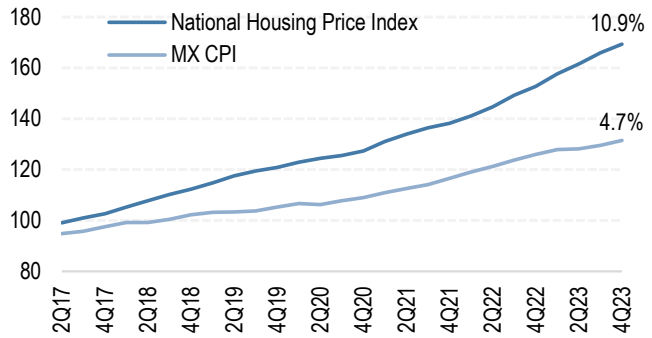
Table 19: New housing inventory as of Dec 2023 and price range per segment

	Affordable	Popular	Traditional	Medium	Residential	Residential Plus
Amount (units)	85,170	64,321	37,452		8,829	
% of total	43.5%	32.9%	19.1%		4.5%	
Range (MXN)						
Min	0	389,463	660,106	1,155,186	2,475,398	4,950,795
Max	389,463	660,106	1,155,186	2,475,398	4,950,795	

Source: RUV and SNIIV.

Average housing prices have grown at a 10.0% CAGR between 2020 and 2023. Looking at the Index, Campeche had the highest CAGR at +37.9%, but related to softer comps, while Baja California Sur, Baja California, Nayarit, and Quintana Roo have had consistent increases for the past years and are the markets with the highest premium vs the national average, even more so than Mexico City.

Figure 373: Home prices have increased at a ~10% annual pace since 2017 vs inflation at 4.7% in 4Q23

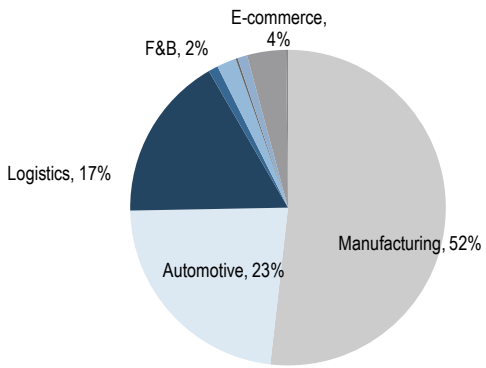


Source: SHF and INEGI.

Industrial Real Estate

Industrial real estate inventory in Mexico is geographically diversified, with most of it located in the North region and the Bajio, while Mexico City and the Metropolitan Area account for one-third, mostly related to logistics (rents in pesos), while the North and Bajio are mostly manufacturing (rents mostly in USD). Manufacturing, Automotive, and Distribution Logistics are the main tenants of the industrial real estate space, with 52%, 23%, and 17% of total GLA.

Figure 374: Demand by Industries

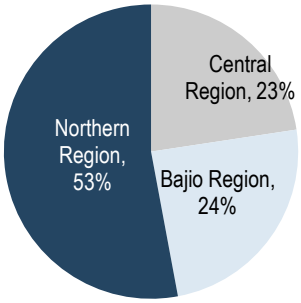


Source: CBRE, JLL, and J.P. Morgan estimates.

Industrial inventory of 101.2 mn m2 of GLA has grown at a 4.1% five-year CAGR, with Monterrey being the largest market at 20% of total, followed by Mexico City and Tijuana with 14.3% and 11.7%, though the Bajio region as a whole (excluding GDL) accounts for 18.2%. In the last two years, GLA has grown at a faster pace of 5-8% per year and is likely to accelerate further as we see very tight supply/demand dynamics and with demand likely to grow at a faster pace than supply. Vacancies are at only 2.4% on average for the main 13 markets, with the lowest vacancies in the center at 1.8%, followed by the north at 2.3%, while the Bajio lags a bit at 3.4%.

Figure 375: Inventory Share per Region

1Q24

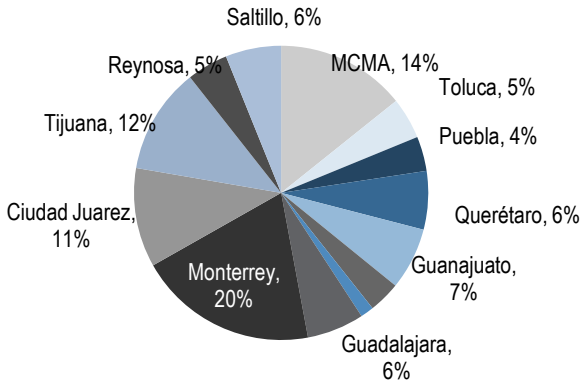


Source: CBRE.

Cities per market are as follows: **Northern Region:** Monterrey, Ciudad Juarez, Tijuana, Reynosa, and Saltillo; **Central Region:** Mexico City and Metropolitan Area, Toluca, and Puebla; and lastly the **Bajio Region**: Queretaro, Guanajuato, San Luis Potosi, Aguascalientes, and Guadalajara.

Figure 376: Mexico's Industrial Inventory Share in Top Markets

As of 1Q24



Source: CBRE, JLL, and J.P. Morgan estimates.

Another important variable when looking at Mexico Industrial Real Estate is asking prices, which have increased at a 9% five-year CAGR (USD) mainly driven by the northern markets that concentrate most of the nearshoring demand, but also by Mexico City, which is supported by solid domestic dynamics and e-commerce penetration.

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

Table 20: Asking Prices and Vacancies as of 1Q24

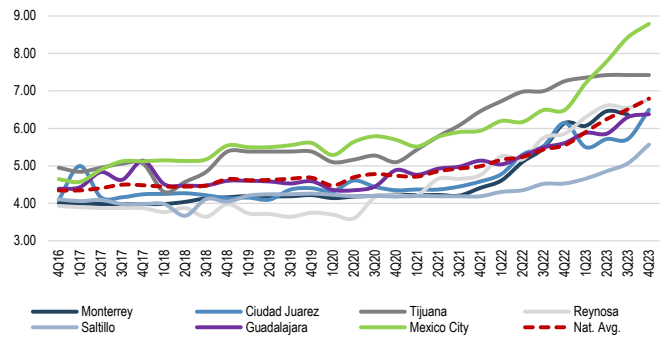
Inventory in 000 m2 and asking pirces in$/m2/mo

Sub-Market	Inventory	Vacancy Rates	Asking Prices
Mexico City & MA	10,660	1.8%	9.0
Toluca	3,400	1.2%	6.2
Puebla	2,840	1.2%	4.7
Bajio	13,601	3.9%	5.0
Guadalajara	4,690	1.9%	6.6
Monterrey	14,750	1.4%	6.7
Ciudad Juarez	8,154	2.5%	7.0
Tijuana	8,725	4.7%	8.0
Reynosa	3,370	4.0%	7.0
Saltillo	4,570	0.7%	6.0
Total Main Markets	74,761	2.4%	6.8

Source: CBRE, JLL, and J.P. Morgan estimates.

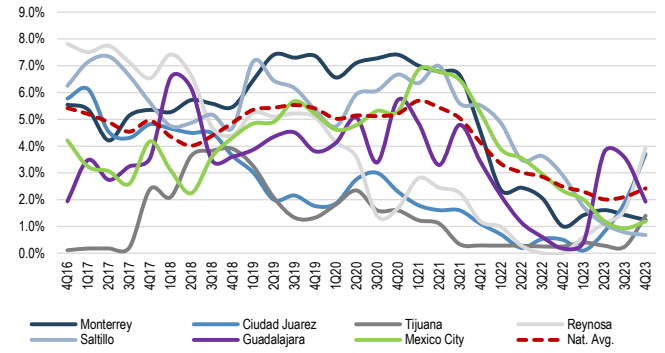
Figure 377: Asking prices evolution

$7m2/mo



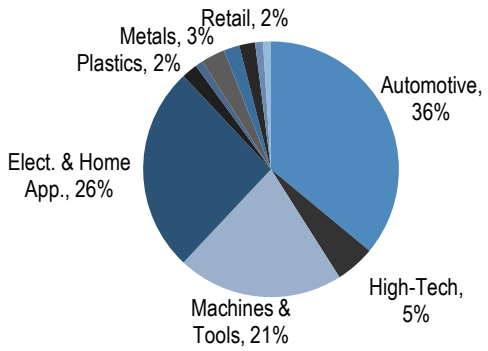
Source: CBRE, JLL, and J.P. Morgan estimates.

Figure 378: Vacancies' evolution



Source: CBRE, JLL, and J.P. Morgan estimates.

Figure 379: Nearshoring Demand by Industry



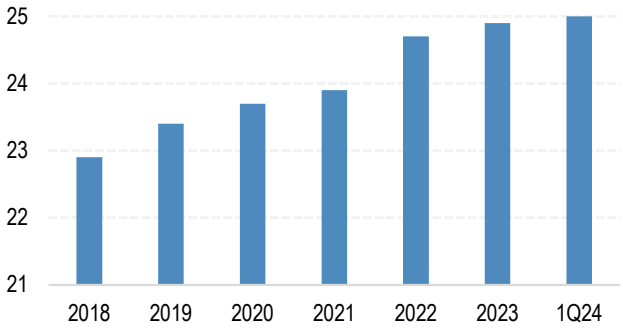
Source: CBRE and J.P. Morgan estimates.

Commercial Real Estate: Office and Retail

Retail stock in Mexico is currently at 25.1 mn m2, a steady, albeit small, increase since 2018 when inventory was closer to ~23 mn m2. Some of the top projects in recent years include Mitikah from FUNO and Parque Tepeyac from DAN-HOS.

Figure 380: Retail Inventory

mn m2

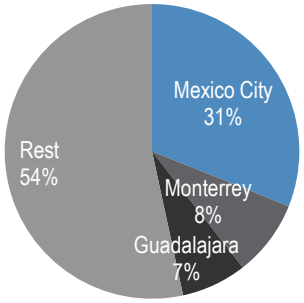


Source: CBRE.

Close to 47% of the total retail stock is concentrated in the country's top three cities, with Mexico City Leading at 31%, Monterrey at 8%, and Guadalajara at 7%. The rest of the cities in the country have less than 10k m2 of retail stock.

Adrian E Huerta AC
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

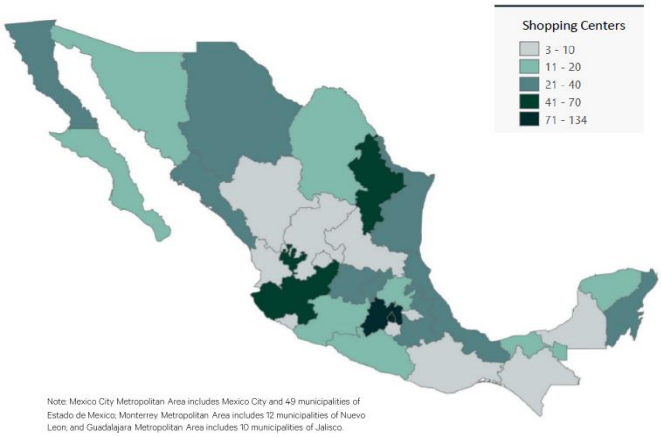
Figure 381: Inventory Share in Main Cities



Source: CBRE.

As mentioned above, Mexico City concentrates the majority of shopping centers in the country, in the range of 71-134 shopping centers, while both Monterrey and Guadalajara are at 41-70. The cities that have the least move between 3-10 shopping centers.

Figure 382: Shopping Mall Distribution

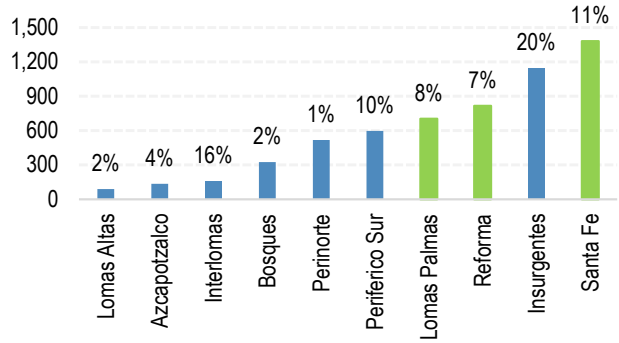


Source: CBRE.

As for office, most of the inventory is concentrated in Mexico City (13.6 mn m2), accounting for almost 85% of the country's total office GLA, which makes sense considering it is by far the largest city in the country in terms of economic activity, accounting for ~15% of Mexico's GDP, according to the latest available information.

Figure 383: Mexico City's Office Space Inventory

% are of total

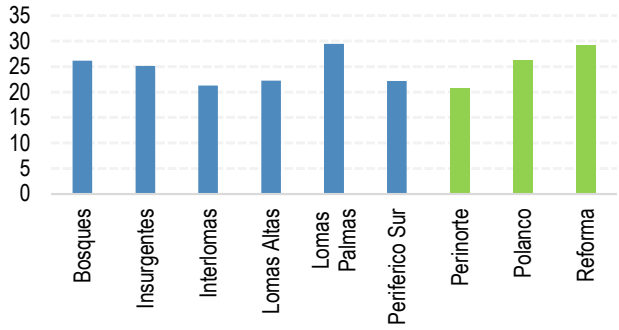


Source: CBRE.

According to CBRE, Mexico City Office inventory (class A/A+) rose to 7.4 mn m2 in 2023, growing ~5% with respect to 2020 despite the effects the pandemic had on vacancy rates. On the other hand, asking list rent for 1Q24 closed at $24.26 m2/mo for Class A/A+ buildings ($17.10/14.95 m2/mo for class B and class C inventory).

Figure 384: Mexico City's Office Space Asking Prices

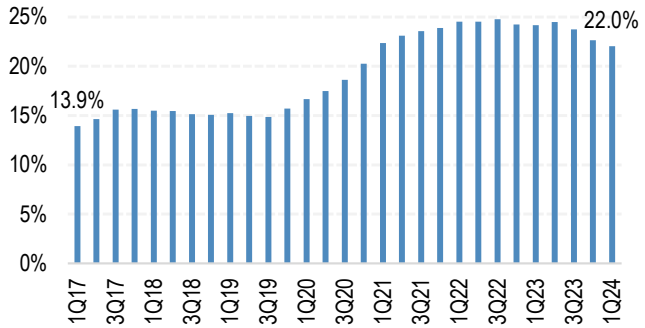
$/m2/mo



Source: CBRE.

Pre-pandemic vacancy rates stood at mid teens, with 4Q19 at 15.7%, which already was an increase from 2015 levels of 11%. In late 2020 we began seeing the impact from WFH dynamics as leases expired and were not renewed, with vacancy rates hitting their peak in 3Q22 at 24.8% and descending slowly to 22% as of 1Q24. Asking prices have remained relatively stable and basically in line with pre-pandemic prices.

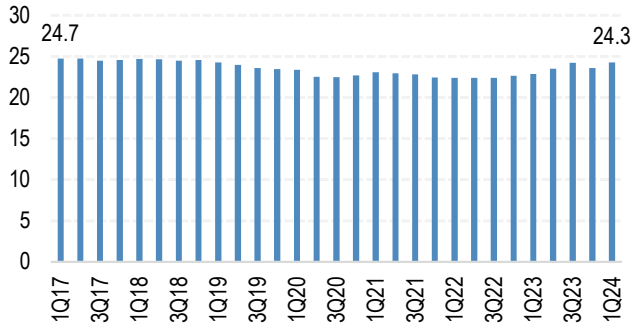
Figure 385: Historical Office Vacancy Rates in Mexico City



Source: CBRE.

Figure 386: Historical Office Asking Prices in Mexico City

$/m2/mo



Source: CBRE

Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com

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Adrian E Huerta [AC]
(52-81) 8152-8720
adrian.huerta@jpmorgan.com