

Mexico – Dynamic estimation of the loss of GDP due to the COVID-19 quarantine

- We keep experiencing an environment of extreme uncertainty
- Forecasting the number of confirmed cases of COVID-19 and comparing them with other international experiences is quite challenging
- We propose a dynamic estimation of GDP growth to find out how much to subtract from GDP for each day that the quarantine stays in place
- Our methodology is based on the historical spread between original and calendar-adjusted GDP data, twelve months after leap years, adjusting it further for the degree of impact by sector of the economy, and the potential vulnerability of companies as the quarantine period extends further
- Based on this model, we revise our 2020 GDP forecast for Mexico, to -7.8% from -3.5%, assuming that the country returns “back to business” by mid to late May, and there is greater government support
- Given this backdrop, we reiterate our view that Banxico will cut the reference rate an additional 175bps during the rest of 2020 to 4.75%, with the next move in an intra-meeting decision very soon

Additional complexity to estimate GDP this year. We keep experiencing an environment of extreme uncertainty. We are not yet certain about the date in which social-distancing measures will come to an end. Forecasting based on other international experiences is quite challenging. Not only because of the different health-care systems, or the dates in which strict measures were implemented, or the shape of the population pyramid in different countries, but also because China is the only country that has returned to ‘normality’, even with lingering doubts about the truthfulness of their data. These circumstances have significantly increased the complexity to estimate Mexico’s GDP growth this year.

We estimate a 7.8% GDP contraction. Given the current backdrop, we propose a dynamic estimation of GDP growth. In other words, we estimate how much we need to subtract of economic activity within GDP for each day that the quarantine stays in place. Our methodology is based on the historical spread between original and calendar-adjusted GDP data one year after leap years, adjusting it further for the degree of impact by sector of the economy, and the potential vulnerability of companies as the quarantine period extends further. Based on this model, we revise lower our 2020 GDP forecast for Mexico, to -7.8% from -3.5%, assuming the country will be ‘back to business’ by mid to late May (see table below)

Macroeconomic framework 2020

Variable	2020		2021	
	Actual	Previous	Actual	Previous
Mexico GDP (% y/y)	-7.8	-3.5	1.5	1.0
Mexican peso (USD/MXN)	22.00	22.00	21.00	21.00
CPI inflation (% y/y)	3.2	3.6	4.2	4.2
Reference rate (%)	4.75	5.50	4.75	5.00
US GDP (% y/y)	-6.1	-2.3	1.5	1.5

Source: Banorte

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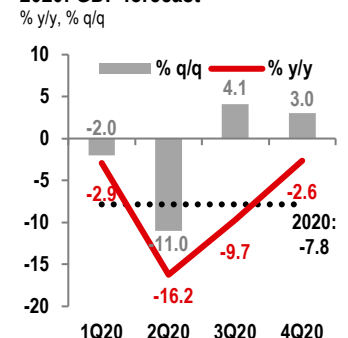
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2020: GDP forecast

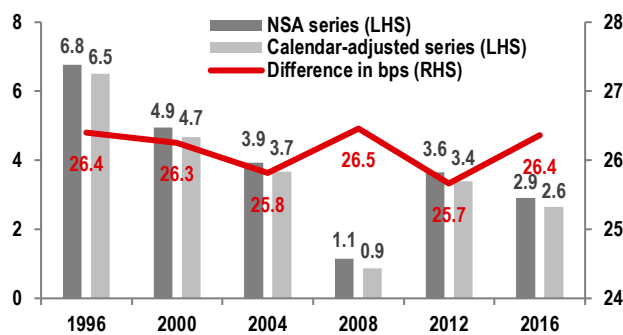


Source: Banorte

Daily impact from the quarantine on GDP. Estimating the daily impact that social-distancing measures could have on growth is not free of its own issues. To start with, it is widely recognized that GDP cannot be just divided by 365 days (or 366 in the case of a leap year), to subtract economic activity by the number of days of the quarantine. For example, one day of activity is not the same in December –taking into account holiday shopping, etc.– than in January. Moreover, not all economic activity has halted. On the other hand, we also need to consider that the effect is non-linear. Unfortunately, in the absence of government support such as the one deployed in several countries, some companies (especially SME’s), cannot keep up with their expenses in the absence of sales for several days. As a result, these businesses are forced into bankruptcy or observe a strong disruption in their operations so they can’t be part of GDP when ‘normality’ returns, or their contribution is lower. This means the effect is significant, showing up in economic growth during the next twelve months, along its impact on unemployment and fiscal revenues, both directly and indirectly, whether they were operating in the formal or informal economy.

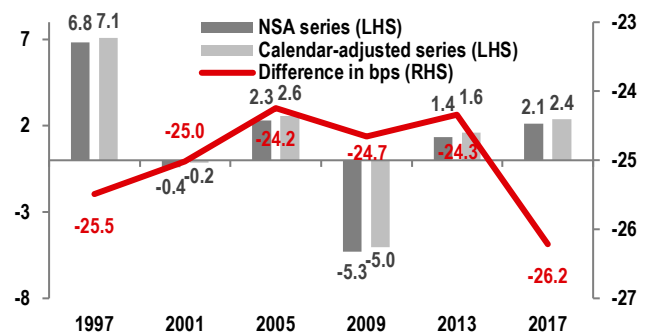
The impact of losing one day in GDP. To tackle the issue of how to account for one day of GDP, we propose a model that estimates the effect of one additional day of activity using the leap-year effect. This is accomplished through the comparison of growth rates in leap years with original figures and the calendar-adjusted rate during the same period. Using these series, both provided by INEGI, we obtain an average increase of 26bps in GDP growth during leap years (see chart below on the left). On the other hand, as we wish to subtract, not add to activity, it is also possible to use the same comparative analysis, but one year after the leap year has passed. The latter subtracts 25bps to GDP growth, as seen in the chart below on the right. This implies that, one full-day with zero economic activity, would reduce total GDP by 25bps.

GDP in leap years: NSA and calendar-adjusted series
% y/y, difference in basis points



Source: Banorte with data from INEGI

GDP in the year after a leap year: NSA and calendar-adjusted series
% y/y, difference in basis points



Source: Banorte with data from INEGI

Adjustments for affected sectors. Not all economic activity has stopped, as it would be suggested by the -25bps estimation above. For example, this is the case in some services considered as essential (e.g. hospitals, drug stores, convenience stores, banks, some restaurants with delivery services), people that can still work from home, and other companies that have not followed #StayAtHome guidelines. As a result, we make a detailed evaluation of the magnitude of the impact in each of the main sectors of economic activity as presented in GDP data. We conclude that around 53% to 55% of economic activity is affected (see table below).

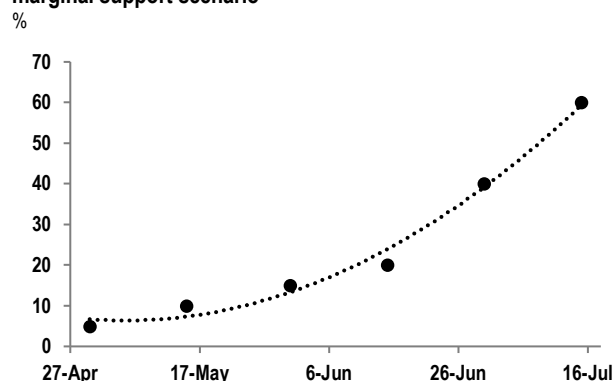
Structure of GDP and COVID-19-affected sectors

Sectors	% of GDP	% of sectors working	
		% of the sector	% of GDP
GDP	100.0	--	46.2
Primary activities	3.1	80	2.5
Industrial production	31.9	--	12.2
Mining	7.1	80	5.7
Utilities	1.5	70	1.0
Construcción	7.4	10	0.7
Manufacturing	15.8	30	4.7
Services	61.1	--	27.5
Wholesale trade	7.9	65	5.1
Retail sales	8.9	65	5.8
Transport, cargo, and packaging	6.2	40	2.5
Massive media	2.0	80	1.6
Financial services	3.5	85	3.0
Real estate	11.4	0	0.0
Professional and technical services	1.9	15	0.3
Corporate services	0.6	80	0.4
Business-support services	3.5	70	2.5
Education	4.1	5	0.2
Health services	2.3	100	2.3
Sports, cultural, and entertainment services	0.5	0	0.0
Hotels and restaurants	2.1	15	0.3
Other non-government related services	2.1	50	1.0
Government services	4.1	60	2.5
Net taxes	3.9	100	3.9

Source: Banorte with data from INEGI

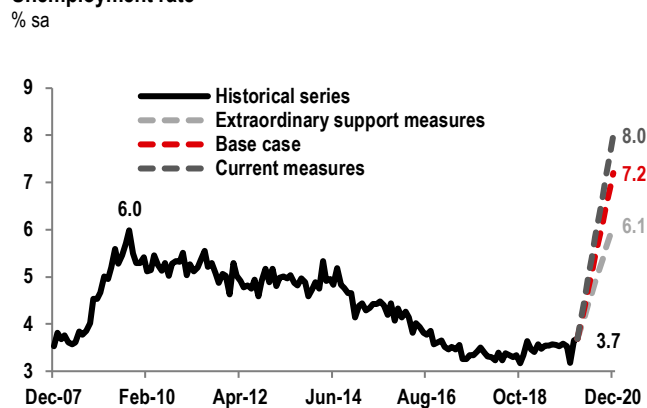
Company vulnerabilities. The possibility that some companies experience additional financial or operational vulnerabilities in the absence of government support, would subtract to GDP not only in the current period, but also for the rest of the year. As a result, the 2020 GDP forecast suffers a permanent effect, both directly and indirectly (*e.g.* employment, fiscal revenues). To approach this, we made a quadratic forecast, assuming 5% of vulnerable companies by April 30th (38 days into the quarantine), finishing as high as 60% by mid-July (114 days), as shown in the chart below to the left. Therefore, and considering that micro-, small-, and medium-sized enterprises (MSMEs) contribute with around 40% of GDP, the impact this could have for the rest of the year on economic activity could vary between 1.3%-pts and up to 11%-pts in a more stressed scenario.

Impact to MSMEs: Percentage of vulnerable businesses under the marginal support scenario



Source: Banorte

Unemployment rate



Source: INEGI, Banorte

New 2020 GDP forecast. The main goal of today’s analysis is to provide a dynamic forecast of GDP growth, given the high level of uncertainty in the current environment, particularly about the date in which the #StayAtHome program could be backtracked (see chart below). Nevertheless, we revise our point estimate for this year to the downside. In our previous forecast for 2020 GDP at -3.5%, our underlying assumption was that the ‘peak’ in confirmed cases for COVID-19 would take place in April 20th, while expecting to be ‘back in business’ around early May. However, we now believe it is highly unlikely this materializes, based on analyzing the evolution of the pandemic and Health Ministry forecasts. Thus, and with a new assumption of a return to ‘normality’ by mid to late May, we estimate a 7.8% y/y contraction of Mexico’s GDP this year.

Impact of COVID-19 on GDP and the unemployment rate

% y/y, %

Date of the “end” of the pandemic	Number of days under quarantine	Current support from the government ¹		Base case ²		Extraordinary support from the government ³	
		GDP forecast	Unemployment rate	GDP forecast	Unemployment rate	GDP forecast	Unemployment rate
April 30	38	-4.8	5.9			-3.5	5.2
May 31	69	-10.7	8.1	-7.8	7.2	-7.1	6.3
June 30	99	-18.7	12.5			-10.5	6.2

Source: Banorte

1. Government support announced up to date (0.3%-pts of GDP). Takes into account the negative impact in the operation of vulnerable MSMEs

2. Greater support to MSMEs via direct transfers to employees and businesses in the informal sector and some exemptions and tax deferral for formal businesses (1.5-2%-pts of GDP)

3. Strong support to both formal and informal MSMEs, including minimum wage payment to informal workers for 90 days, elimination of contributions to social security (IMSS) for 90 days and support, credit, and corporate debt purchase programs to bolster liquidity and refinancing (3-4%-pts of GDP)

The relevance of government support to return to ‘normality’. One relevant aspect in the table above is the difference between GDP growth and the unemployment rate if there are extraordinary support measures by the government to companies or not, particularly the most exposed, such as MSMEs. This can be achieved through direct money transfers –in the case of micro enterprises and those in the informal sector–, along the waiver of social security contributions and tax deferrals for the rest of them. For example, the forecast stands at -7.1% by the end of May with extraordinary measures and dips to -10.7% without them, along with a significant uptick in the unemployment rate. In this context, our base case takes into account greater support measures in a gradual manner, thus contributing to the strengthening of the most vulnerable companies.

Some important assumptions. The model also assumes a gradual return to ‘normal’ economic activity within 15 days once the quarantine is over. Specifically, it assumes that restrictions are lifted gradually in different regions of the country during a two-week period. We should also mention that both in the case of a sudden stop of activity, and in our original forecast for GDP this year of 0.8%, we consider the impact stemming from the global economy.

We anticipate a strong decline in both consumption and investment. In terms of aggregate demand (see table below), we consider that the highest impact will be observed in consumption (-7.0% y/y) and investment (-18.9%), both more closely associated with domestic demand. Regarding the former, we anticipate a deterioration in fundamentals, among them: (1) A higher unemployment rate, reaching 7.2% by year-end; (2) a slower wage growth on the back of excess labor supply; and (3) a 20% y/y decline in remittances, due to the impact of COVID-19 in the US labor market. Durable-goods purchases will suffer the most, with double-digit declines on a negative wealth effect and higher uncertainty.

In terms of investment, it is our take that the private sector will favor non-capital spending given the shock to companies' revenues (as mentioned above), and despite the possibility of lower financing costs (at least in short-term tenors as Banxico cuts rates) and other support measures from the banking sector. The main concern will be on preserving adequate liquidity levels, more so as there is no certainty about when they could fully restart operations. Weakness will likely be concentrated in private companies, which make up almost 87% of total investment, with efforts by the public sector to pick up the slack not enough to compensate. As a result, investment would add two consecutive years in contraction.

Exports (-10.3% y/y) and imports (-14.2%) would also decline strongly, especially in 2Q20 as a plethora of industries have closed plant operations both in Mexico and the US, including in the automotive sector. Additionally, we have recently downgraded our view for US GDP, to -6.1% from -2.3%. We believe an incipient recovery may be on the cards in the second half of the year, with the external sector helped to some extent by decisive measures in the US, including the largest ever fiscal stimulus in history. Lastly, we anticipate higher government spending in 1H20 on efforts by the Federal Government and states to fight the pandemic, although with a contraction during the rest of the year as greater efforts are undertaken to contain a higher fiscal deficit.

GDP 2020: Aggregate supply

% y/y nsa; % q/q sa

% y/y	1Q20	2Q20	3Q20	4Q20	2020
GDP	-2.9	-16.2	-9.7	-2.6	-7.8
Agriculture	-0.5	-2.5	-2.4	-0.6	-1.4
Industrial production	-5.0	-21.9	-9.1	-3.2	-9.8
Services	-2.1	-14.2	-10.1	-2.8	-7.3
% q/q					
GDP	-2.0	-11.0	4.1	3.0	--

Source: Banorte

GDP 2020: Aggregate demand

% y/y nsa; % q/q sa

% y/y	1T20	2T20	3T20	4T20	2020
GDP	-2.9	-16.2	-9.7	-2.6	-7.8
Private consumption	-1.3	-15.3	-8.9	-2.5	-7.0
Investment	-13.3	-39.2	-17.9	-5.2	-18.9
Exports	0.2	2.5	-4.1	-5.9	-1.8
Imports	-7.1	-29.8	-6.2	3.0	-10.3
% q/q					
GDP	-2.0	-11.0	4.1	3.0	--

Source: Banorte

Considering this backdrop, we believe Banxico will cut the reference rate more aggressively. A weaker outlook for growth, and its likely lower effect in terms of demand-side pressures for inflation and FX passthrough from a weaker exchange rate to prices, among other factors, provides more reasons for the monetary authority to cut rates more aggressively. In this sense, [we recently argued](#) that the central bank will likely cut the reference rate another 175bps during the rest of 2020, to a year-end level of 4.75%. Moreover, we also recognize more favorable inflation dynamics in the short term, so we adjusted our year-end estimate to 3.2% from 3.6%.

A message of confidence is needed. Once again, we reiterate the need of a unified message by our government –especially incorporating the Legislative Branch– to boost confidence and provide higher incentives to investment and private consumption. We believe this is the only way to recover growth above 1% in a sustainable fashion. Confidence will pick up more strongly if the degree of conviction in terms of the message, the consistency in economic policy decisions, and the legislative measures presented, are stronger. In our view, this is very important to return at least to the average GDP growth rate of the last thirty years, at 2.3%. Lastly, if the country moves decisively forward in providing more legal certainty and improving the Rule of Law –dignifying police work, increasing the number of judges per capita, and by improving the prison system, for example–, we believe there is no doubt that Mexico could grow at annual rates of 4%, or even 5%.

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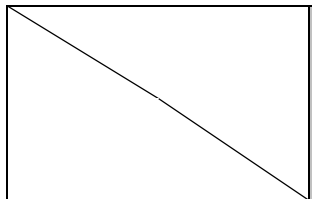
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