

# Recession risk remains

4Q22 Outlook

October 7, 2022

## 4Q22 Outlook – Recession risk remains

Throughout the year, many risks associated with stagflation –the combination of high inflationary pressures and low economic growth– have materialized, as warned in previous quarterly publications. However, we begin 4Q22 with renewed challenges for the global economy and financial markets. This has been reflected in a heightened sense of risk-off among all decision-makers. The most important factor to ponder is the potential recession that many regions could face in 2023, driven by much tighter global monetary policy to address inflation not seen in several decades, albeit also because of a host of geopolitical factors, limits to supply growth and logistical issues (e.g., delayed supply chain normalization process), among others. Also, we cannot rule out jitters in several regions because of financial stability concerns as the phase of ‘easy money’ is left further behind. Amid all this, in Banorte’s research team we believe that the Federal Reserve will continue its hiking cycle in upcoming monetary policy decisions. Moreover, and given the current state of the economy, we expect a mild recession in 2023.

Geopolitical issues will continue to play a meaningful role for economic performance and various financial assets. The war in Ukraine will likely remain at an uncomfortable *impasse*, with low visibility about a settlement in the remaining months of the year. The deterioration in US relations with key global players such as China is likely to continue. Meanwhile, there is the possibility of major changes in the configuration of US legislative chambers, which in turn could have key implications for the implementation of public policies going forward. On a longer-term perspective, the focus will continue centered on ongoing challenges for globalization, bringing with it a greater adherence to regionalization strategies that have shaped many aspects of the global economy, not less so in trade.

In Mexico, we remain convinced that the economic recovery will remain on track for the rest of 2022. Nevertheless, we recognize increasing headwinds and risks associated with a potential global recession –especially in the United States– next year. Inflation will probably keep showing very complex dynamics. So, in this backdrop, Banxico will need to extend further its monetary tightening cycle, hand-in-hand with the Fed. In fiscal matters, the discussion and approval of the 2023 Budget Proposal in Congress will be relevant. Lastly, in the international trade arena, we remain very attentive to current consultations on the energy sector between the countries that comprise the USMCA, as well as other procedures that could take place as all members keep adapting to the new rulebook.



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Winners of the award for best economic forecasters for Mexico in 2021, granted by Refinitiv



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### Mexico’s main macroeconomic and financial forecasts

| End of period                | 1Q22   | 2Q22   | 3Q22       | 4Q22          | 2020   | 2021   | 2022          | 2023          |
|------------------------------|--------|--------|------------|---------------|--------|--------|---------------|---------------|
| GDP (% y/y)                  | 1.8    | 2.0    | <u>3.0</u> | <u>1.7</u>    | -8.1   | 4.8    | <u>2.1</u>    | <u>1.0</u>    |
| Inflation (% y/y)            | 7.5    | 8.0    | 8.7        | <u>9.0</u>    | 3.2    | 7.4    | <u>9.0</u>    | <u>5.4</u>    |
| USD/MXN                      | 19.87  | 20.12  | 20.14      | <u>20.70</u>  | 19.91  | 20.53  | <u>20.70</u>  | <u>22.00</u>  |
| Banxico’s reference rate (%) | 6.50   | 7.75   | 9.25       | <u>10.50</u>  | 4.25   | 5.50   | <u>10.50</u>  | <u>10.25</u>  |
| 28-day TIE (%)               | 6.72   | 8.03   | 9.54       | <u>10.85</u>  | 4.48   | 5.72   | <u>10.85</u>  | <u>10.52</u>  |
| Mexbol (points)              | 56,537 | 47,524 | 44,627     | <u>43,700</u> | 44,067 | 53,272 | <u>43,700</u> | <u>48,800</u> |

Source: Banorte. Underlined data represents our forecasts

## Mexico

The economy likely maintained a good performance in 3Q22, despite mixed signals about its dynamism. On a positive note, we highlight better global trade conditions due to lower disruptions in China, as well as the moderation in commodity prices and transportation costs. In addition, US demand was quite solid and helped exports, [especially in manufacturing](#). We also had strength in [remittances](#), [employment](#), and an ongoing [recovery in credit](#). All of these have been key for consumption. Although decelerating, investment seems to have held up because of nearshoring efforts and higher federal spending. Given this, we now see a 0.5% q/q expansion in the period's GDP (+3.0% y/y), above our previous forecast of +0.3%. Nevertheless, headwinds are increasing, especially on mounting fears of a recession given global monetary tightening, which has been more evident in [IMEF's PMIs](#) and business confidence, among other indicators. As such, we believe that the economy will slow down more in 4Q22 (-0.3% q/q; +1.7% y/y). Despite of the latter, signs of resiliency suggest some upside risks to our full-year 2022 GDP estimate of 2.1%, which is slightly higher than consensus. On the contrary, we are more cautious for 2023, still expecting +1.0%.

We see limited room for inflation to improve in the short-term despite [efforts to contain pressures](#). Therefore, [we recently revised our forecasts for 2022 and 2023](#) to 9.0% and 5.4% y/y, respectively. Our path sets the high for yearly inflation during this cycle close to 9.1% in January 2023, with a gradual downward trend from there. Considering this, as well as the difficulties of loosening the relative stance to the Fed given the strong volatility in both markets and capital flows, [we see more reference rate hikes from Banxico](#). Specifically, we expect additional accumulated increases in the remainder of the year of 125bps, taking the rate to 10.50%. Tightening would extend further, with the terminal rate by the end of 1Q23 at 11.00%. After a period of stability, easing would begin in September, with the rate finishing said year at 10.25%.

Among the most relevant events in 4Q22, we will follow the approval process of the 2023 Budget in Congress, reforms to the National Guard, and possible discussions of an electoral reform. We will continue paying attention to progress on USMCA consultations on the auto, labor, and energy sectors. Lastly, we expect the announcement of the 2023 minimum wage increase in early December.



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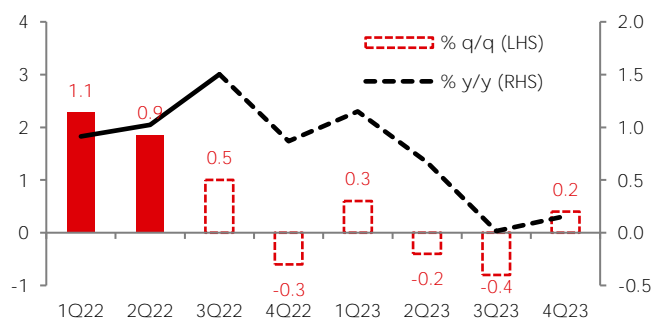


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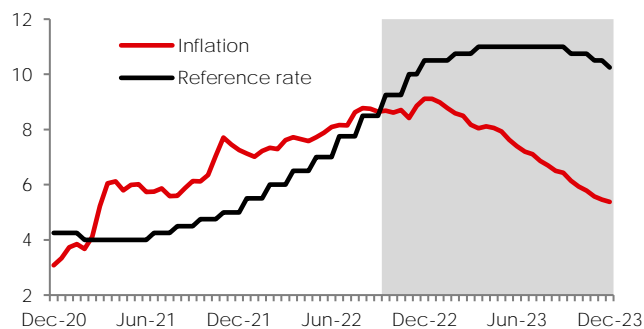
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GDP  
% y/y nsa; % q/q sa



Source: INEGI, Banorte

Inflation and reference rate  
% y/y; %



Source: INEGI, Banxico, Banorte

## United States

Several months after the rate hiking cycle has been underway, the US continues to face a complex scenario of price pressures and recession risks. Specifically, the economy contracted in the first half of the year, posting -1.6% and -0.6% q/q saar in 1Q22 and 2Q22, respectively. In our view, data so far points to a rebound in the second half, albeit with a slowdown towards the last quarter that will probably maintain lingering fears about performance into 2023.

In this backdrop, we expect consumption to continue growing in coming quarters, but at a moderate pace. Expenditures on services would partly be offset by lower dynamism in goods' consumption. In 4Q22, household spending will continue to be supported by labor market strength, the recovery of consumer confidence and lower gasoline prices. However, we see increasing challenges in this front towards next year, with a labor market moderation and the possibility of another shock in commodity prices if tensions between Russia and Ukraine keep escalating, as seen so far. Hence, we cut our 2023 GDP forecast to 0.8% from 1.2% previously.

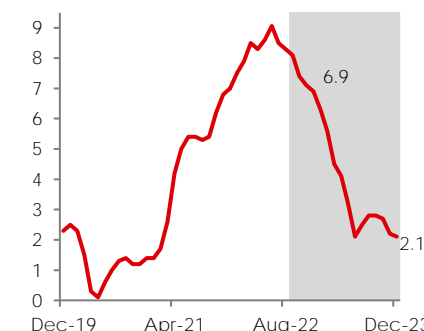
We estimate that nonfarm payrolls will show an average job creation of around 200k per month in 4Q22. This would be below the year-to-date average until September of 420k but would still be high. The unemployment rate is expected to close the year near 3.9%, still consistent with full employment conditions. For 2023, we anticipate further economic weakness and a mild recession, which would be concentrated in the first half of the year. Consequently, we see a significant moderation in average new jobs per month in 1H23 at a rate between 50k and 100k, with the unemployment rate rising to 4.3% by the end of the year.

On the other hand, price pressures will likely continue in the short-term and will only decrease gradually. We estimate average inflation at 7.1% y/y in 4Q22, closing the year at 6.9%. With this, average inflation for FY22 would be 8.0%. Core CPI would close at 6.0%, with an average of 6.3%. In 2023 it would moderate, approaching the Fed's target of 2% towards the second half (see chart above on the right). These forecasts support our view that the Fed will keep going with the aggressive hiking cycle in coming months. We estimate a new 75bps hike in November and +50bps in December. Likewise, we foresee two more hikes of 25bps each in 1Q23 (February and March), with probabilities of a 25bps cut only towards the fourth quarter.



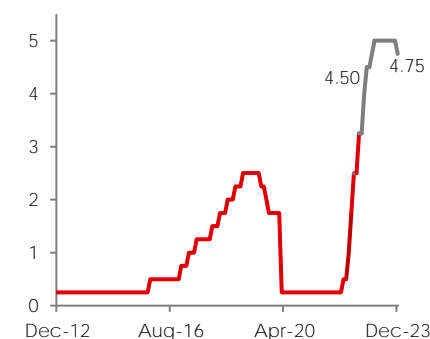
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Banorte: Inflation forecast  
% y/y



\* Note: Figures from Sep.-22 to Dec.-23 correspond to Banorte estimates. Tags for year-end 2022 and 2023, respectively  
Source: Banorte with data from Bloomberg

Banorte: Fed funds rate estimate\*  
%



\* Note: Based on the range's upper bound. Figures from Oct.-22 to Dec.-23 correspond to our estimates. Tags for year-end 2022 and 2023, respectively  
Source: Banorte with data from Bloomberg

### US: Banorte Estimates

|                               | 1Q22  | 2Q22  | 3Q22       | 4Q22       | 2022*        | 2023*       |
|-------------------------------|-------|-------|------------|------------|--------------|-------------|
| GDP (% q/q annualized rate)*  | -1.6  | -0.6  | <u>1.3</u> | <u>0.7</u> | <u>1.7</u>   | <u>0.8</u>  |
| Private Consumption           | 1.3   | 2.0   | <u>1.5</u> | <u>1.0</u> | <u>2.6</u>   | <u>1.2</u>  |
| Fixed Investment              | 4.8   | -5.0  | <u>0.0</u> | <u>2.0</u> | <u>0.7</u>   | <u>1.4</u>  |
| Exports                       | -4.6  | 13.8  | <u>4.1</u> | <u>2.4</u> | <u>6.2</u>   | <u>-0.2</u> |
| Imports                       | 18.4  | 2.3   | <u>5.3</u> | <u>2.8</u> | <u>10.8</u>  | <u>2.0</u>  |
| CPI (% y/y, average)          | 8.0   | 8.6   | <u>8.3</u> | <u>7.1</u> | <u>8.0</u>   | <u>3.4</u>  |
| Unemployment rate (% eop)     | 3.6   | 3.6   | 3.5        | <u>3.9</u> | <u>3.9</u>   | <u>4.3</u>  |
| Non-farm payrolls (thousands) | 1,616 | 1,047 | 1,115      | <u>600</u> | <u>4,378</u> | <u>-643</u> |

\* All GDP estimates are % q/q saar, except for 2021, and 2022 which is % y/y. eop: end of period.  
Source: Banorte

## US Midterm Elections

The midterm elections in the US will be held on November 8<sup>th</sup>. These elections take place every two years, halfway through the presidential term. In them, a third of the Senate (34 of 100 seats) is renewed, with the winners serving six-year terms; and the total of the House of Representatives (435 seats). In addition, 36 states will elect new governors.

Leading up to the event, we have seen a rise in Biden's approval ratings after a sharp drop in recent months. According to a recent NBC poll, the positive perception of the president reached 45% in September, 3pp higher than in August, and at highs since October last year. The general opinion is that Democrats' **stance** about the controversial issue of abortion rights is closer to the preferences of most voters, as well as having better proposals in health-related issues. For their part, Republicans hold the upper hand in the economy, the fight against crime, and border security.

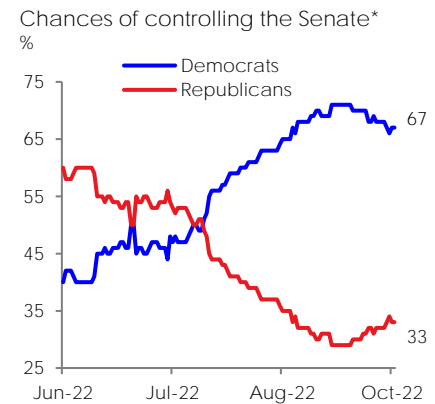
We believe Biden's recent rise in popularity is due to the approval of key laws, such as the *Inflation Reduction Act* (focused primarily on measures against climate change and initiatives on change to Medicare) and student debt relief. Another relevant milestone in the efforts to solve one of the biggest current economic problems was the approval of the bill on **semiconductors'** production (*CHIPS Act*), components necessary in countless industries –including autos and electronics. Likewise, the White House has benefited from the decline in gasoline prices that began in mid-June, despite still being high. Finally, another key issue has been the **Supreme Court's** elimination of the constitutional right to an abortion. In this sense, it should be recalled that Democrats support abortion rights, while Republicans are against them.

Harold Wilson, UK Prime Minister in the 1960s, said that “*A week is a long time in politics*”. It seems that this phrase describes quite clearly the strong changes seen in the balance about the most probable results, especially in the Senate. Currently, the absolute majority is in the hands of the Democrats. Although the seats are equally divided at 50-50 between both parties, the tiebreaker vote is held by VP Kamala Harris. According to *FiveThirtyEight*, Democrats had a 40% chance of retaining control of the Upper House in June. Now, it stands at 67% (see chart above on the right). However, it looks almost certain that they will lose control of the House, where they currently have 221 seats, against 214 of the Republicans. According to the same site, the chances that they will maintain control in this case are only 31% (see chart below on the right).

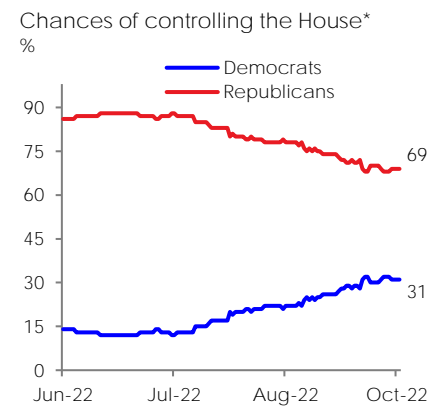
For Biden's political agenda, it is quite important that the Democrats keep the Senate. Especially, as several key projects are still pending for approval after the midterm elections. Among them, we highlight a new government funding package for fiscal year 2023, a potentially important electoral reform ahead of the 2024 Presidential race, and upcoming votes to confirm Biden's picks for judges. So far, there are no new scheduled nominations slated for him for the Federal Reserve Board in the rest of this term. Nevertheless, they could be present in case of unexpected changes and/or renominations from current Governors (e.g. such as Brainard and Cook).



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\* Note: As of October 6  
Source: Banorte with data from *FiveThirtyEight*



\* Note: As of October 6  
Source: Banorte with data from *FiveThirtyEight*



## Global

The European Union is facing a complex scenario of very high inflation, political instability due to the war, and strong risks of an economic contraction. In this region, the chances of a deep recession materializing in tandem with more persistent price pressures are much higher than in other parts of the world. To a large extent, this is due to the strong dependence of energy supplies from Russia. The crisis has deepened since early September as natural gas still flowed through the *Nord Stream 1* pipeline from Russia to Eastern Europe, faces mounting problems, some of them blamed on acts of sabotage. Given the imminent arrival of lower temperatures because of the winter, challenges have increased even more. To this, we must add Russia's announcement of the annexation of occupied territories in Ukraine. In response, EU countries have agreed on an eight package of sanctions, which has also been coordinated with other countries. Among the measures, they lay the basis for the required legal framework to implement an oil price cap for Russian crude oil envisaged by the G7.

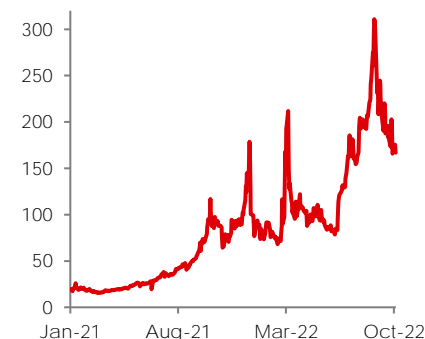
Adding to these risks, central banks have adopted a very *hawkish* stance. In the Eurozone, inflation in September stood at new all-time highs of 10% y/y. This has convinced the ECB to announce 125bps of cumulative rate hikes so far this year, as well as to send clear signals that they will continue with an aggressive tightening cycle. We see another 75bps increase at the end of October and +50bps in December. In this scenario, GDP will likely contract in 4Q22 and 1Q23. Moreover, we estimate growth close to 0% in 2023, with risks still tilted to the downside.

Unfortunately, problems might not end there. An illustrative case is the United Kingdom. Inflation is at a forty-year high of 9.9% y/y, to which the BoE has responded with cumulative increases in the benchmark rate of 215bps since November 2021. However, and counter to the direction of these measures, the government –under new Prime Minister Liz Truss– announced a few days ago a plan to cut taxes, increase debt and public spending. The goal was to lessen the strong effects that inflation has had on households' real incomes. However, with fiscal and monetary policy counter to each other, this announcement created a credibility and consistency problem in terms of the country's economic policies. Markets reacted strongly, with the impact reflected in a strong depreciation of the pound, approaching parity against the USD, and at new historical lows. The 10-year sovereign bond yield reached its highest level since the 2008 financial crisis, which in turn resulted in strong financial pressures for pension funds. Given this scenario, the central bank had to announce an emergency plan for a total of 65 billion pounds in a temporary bond purchase program. Later, the Prime Minister made a 'U-turn' in her tax cut plans for high-income individuals, helping to restore some sense of calm into financial markets. In our view these events, which have taken place in the last few days, show the growing risks of financial instability around the world. If the situation is so dire and has deteriorated so fast in a deep, developed market like the UK, the question now is: Who could be the next country or region in the crossfire given this challenging environment?



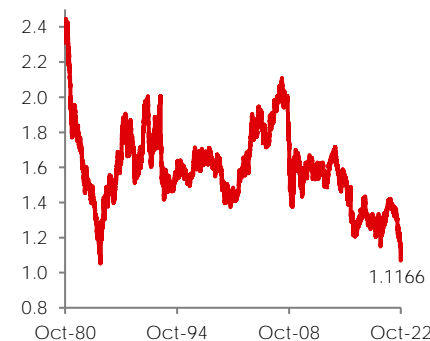
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Natural gas prices in Europe\*  
EUR/MWh



\* Note: As of October 6  
Source: Banorte with data from Bloomberg

Pound sterling\*  
US dollars per pound



\* Note: As of October 6  
Source: Banorte with data from Bloomberg

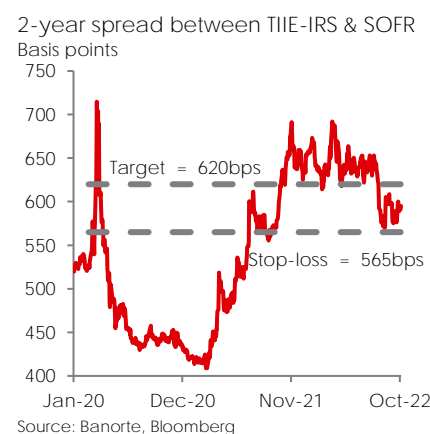
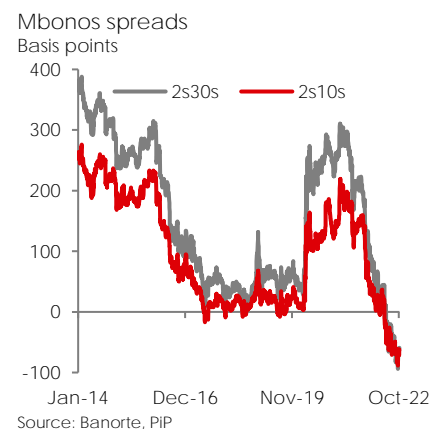
## Fixed Income (Sovereign Debt)

3Q22 closed with flatter and more inverted yield curves. Rates rose substantially –with the largest adjustments in the short end– as they priced-in a much more restrictive global monetary policy, including from Banxico. As a result, the Mbonos curve inversion sharpened, with the 2s30s spread reaching unprecedented lows of -94bps by September-end from -30bps in June. Moreover, Mbonos's yields traded at their highest since 2008. For example, the 10-year reference reached up to 9.85% and finished the quarter at 9.65% (+63bps q/q). In a similar fashion, the 2s10s spread in US Treasuries hit a four-decade low of -54bps from +5bps in June.

High volatility still favors relative value strategies. We expect yield curves to extend their flattening bias and/or their outright inversion towards the end of the year and the beginning of 2023, amidst persistent volatility ahead of upcoming monetary policy adjustments in both Mexico and the US. We still see room for additional pressures considering our expected paths for the reference rates of Banxico and the Fed, which will be felt mainly in short-term tenors. Moreover, we foresee more stressed levels in Mbonos at the belly (5 to 7 years) due to their relative overvaluation –according to our analysis of duration-adjusted yields– and [higher supply](#), even despite the fact that they are trading close to multi-year highs. In relative terms, and as in the previous quarter, we continue to prefer long-term Mbonos. At the start of said period, we saw levels above 9.00% as attractive in securities maturing on Nov'38, Nov'42, and Nov'47, with the highest conviction in the Jul'53 tenor. Despite July's 40bps rally in these securities, they ended September slightly above 9.60% and, at some point, very close to 10.00%. Given this unusual volatility and the current shape of the yield curve, we keep avoiding directional positions. However, Nov'38 and Nov'42 tenors now stand out as a long-term investment opportunity. On the other hand, we still prefer relative value strategies, reiterating our [trade idea to pay TIE-IRS \(26x1\) and receive 2-year SOFR](#), currently at 592bps, and initiated on August 18<sup>th</sup> at 583bps. Furthermore, we look for better entry levels to engage in bear flatteners in Mbonos, mainly between the 2- and 30-year benchmarks. Finally, we do not see a clearly attractive valuations in CPI-linked bonds (Udibonos), at least for now. In this sense, breakevens are trading again very close to last year's highs, which is a strong limitation even after accounting for the sizable upward revision to our inflation forecasts towards year-end 2023, which in turn supports carry gains.



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### Banorte's interest rate forecasts

| Security                     | 2018 | 2019 | 2020 | 2021 | 2022 forecast |      |      |              | 2023 forecast |       |       |       |  |  |
|------------------------------|------|------|------|------|---------------|------|------|--------------|---------------|-------|-------|-------|--|--|
|                              |      |      |      |      | 1Q            | 2Q   | 3Q   | 4Q           | 1Q            | 2Q    | 3Q    | 4Q    |  |  |
| Banxico's reference rate     |      |      |      |      |               |      |      |              |               |       |       |       |  |  |
| End of period                | 8.25 | 7.25 | 4.25 | 5.50 | 6.50          | 7.75 | 9.25 | <u>10.50</u> | 11.00         | 11.00 | 10.75 | 10.25 |  |  |
| Average                      | 7.64 | 8.05 | 5.44 | 4.38 | 6.00          | 6.85 | 8.19 | <u>9.92</u>  | 10.75         | 11.00 | 10.92 | 10.50 |  |  |
| 28-day Cetes                 |      |      |      |      |               |      |      |              |               |       |       |       |  |  |
| End of period                | 8.06 | 7.30 | 4.25 | 5.51 | 6.47          | 7.70 | 9.30 | <u>10.58</u> | 11.08         | 11.08 | 10.80 | 10.30 |  |  |
| Average                      | 7.64 | 7.87 | 5.33 | 4.44 | 5.95          | 6.99 | 8.31 | <u>10.00</u> | 10.83         | 11.08 | 10.99 | 10.55 |  |  |
| 28-day TIE                   |      |      |      |      |               |      |      |              |               |       |       |       |  |  |
| End of period                | 8.59 | 7.56 | 4.48 | 5.72 | 6.72          | 8.03 | 9.54 | <u>10.85</u> | 11.32         | 11.32 | 11.02 | 10.52 |  |  |
| Average                      | 8.00 | 8.31 | 5.69 | 4.63 | 6.36          | 7.09 | 8.50 | <u>10.27</u> | 11.07         | 11.32 | 11.21 | 10.77 |  |  |
| 10-year Mexican bond (Mbono) |      |      |      |      |               |      |      |              |               |       |       |       |  |  |
| End of period                | 8.63 | 6.85 | 5.54 | 7.57 | 8.24          | 9.02 | 9.65 | <u>10.00</u> | 10.15         | 10.00 | 9.90  | 9.70  |  |  |
| Average                      | 7.93 | 7.61 | 6.25 | 6.81 | 7.96          | 8.89 | 8.95 | <u>9.83</u>  | 10.08         | 10.08 | 9.95  | 9.80  |  |  |
| 10-year US Treasury          |      |      |      |      |               |      |      |              |               |       |       |       |  |  |
| End of period                | 2.71 | 1.92 | 0.91 | 1.51 | 2.34          | 3.01 | 3.83 | <u>4.05</u>  | 4.10          | 3.90  | 3.75  | 3.65  |  |  |
| Average                      | 2.91 | 2.14 | 0.88 | 1.44 | 1.95          | 2.92 | 3.10 | <u>3.84</u>  | 3.98          | 3.90  | 3.73  | 3.60  |  |  |
| 10-year Spread Mex-US        |      |      |      |      |               |      |      |              |               |       |       |       |  |  |
| End of period                | 592  | 493  | 463  | 606  | 590           | 601  | 582  | <u>595</u>   | 605           | 610   | 615   | 605   |  |  |
| Average                      | 502  | 547  | 534  | 538  | 601           | 597  | 585  | <u>599</u>   | 600           | 618   | 623   | 620   |  |  |

Source: Bloomberg and PIP for observed data, Banorte for rate forecasts. Underlined numbers indicate forecasts

## Foreign Exchange

In line with our view, USD appreciation continued in 3Q22. The USD reached new highs not seen in more than two decades, with the BBDXY up 5.8% q/q and net longs against major currencies traded in the CME quite stable at US\$13.28 billion, albeit still with room to reach recent highs (chart above right). Some countries have tried to counter USD strength with concrete and/or verbal interventions, especially in Asia (e.g. Japan, China, South Korea, Taiwan, and India). Speculation has even been growing about the possibility of a coordinated action to weaken the USD, in a similar fashion as the famous 'Plaza Accord' of 1985. Nonetheless, we do not see this happening in the short term. Despite of this, the MXN remains among the most resilient currencies globally (chart below, right), losing only 0.1% q/q. In our view, Banxico's high interest rates, Mexico's proximity and interrelationships with the US, few macro imbalances, and greater domestic political stability relative to other EMs, are some of the factors that explain the currency's good relative performance.

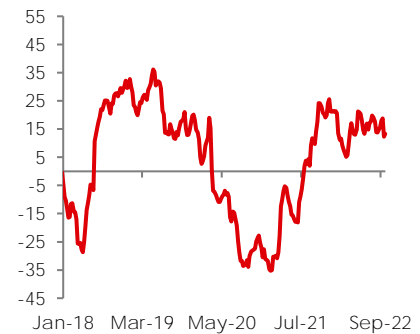
We believe the same tone will prevail for some time. It is our take that USD gains are not over yet. The Fed keeps reiterating its commitment to tackle inflation even after some negative economic surprises that have induced speculation as to when it might signal the end of the tightening cycle. The latter has triggered episodes of higher risk appetite and dollar losses. However, in our scenario of a mild recession and higher rates for longer in that country, we consider that they will remain sporadic. Meanwhile, Europe's energy crisis could deteriorate further. Despite heightened pressures for the ECB to accelerate its tightening cycle, the difficult outlook for growth, the potential for further geopolitical instability, and persistent downside risks, will continue to weigh on EUR/USD. We are reducing our 2022 year-end estimate from 1.03 to 0.96 and set our December 2023 forecast at 1.01.

Slight adjustments to the USD/MXN path for 2023. We maintain our estimate at 20.70 for the end of 2022 and modify the expected path for next year. For 2023, we anticipate a trading range between USD/MXN 19.90 and 22.50, closing the year at 22.00 per dollar. The MXN could be at its strongest level when markets fully price-in our view of Banxico's terminal rate at 11.00%. From there, some headwinds could temporarily affect it, such as elections in the State of Mexico and/or an eventual panel in USMCA disputes, despite favorable news recently. Slower growth in the US and Mexico, and the central bank's slightly earlier start of rate cuts, would also play a part against it. We continue to see value in USD purchases below 20.00 on the peso's relative overvaluation, suggested also by some deterioration already seen in the [trade deficit](#) and, eventually, in the [current account](#).



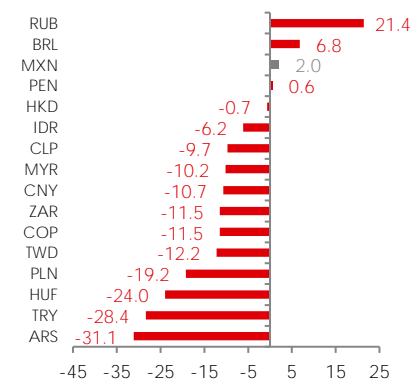
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Net positioning in USD futures  
Billion dollars. Positive: net long in USD



Source: Banorte with data from CME

EM currency performance  
%, YTD



Source: Banorte with data from Bloomberg as of October 6, 2022

USD/MXN  
Pesos per dollar



Source: Bloomberg, Banorte

USD/MXN forecast  
Pesos per dollar

| Period | End of period | Previous forecast | Forecast     | Period average |
|--------|---------------|-------------------|--------------|----------------|
| 1T22   | 19.87         |                   |              |                |
| 2T22   | 20.12         |                   |              |                |
| 3T22   | 20.14         |                   |              |                |
| 4T22   |               | <u>20.70</u>      | <u>20.70</u> | <u>20.53</u>   |
| 1T23   |               | <u>20.32</u>      | <u>20.88</u> | <u>20.38</u>   |
| 2T23   |               | <u>22.10</u>      | <u>22.50</u> | <u>21.62</u>   |
| 3T23   |               | <u>21.33</u>      | <u>21.82</u> | <u>21.51</u>   |
| 4T23   |               | <u>21.80</u>      | <u>22.00</u> | <u>21.95</u>   |

Source: Bloomberg, Banorte \*Underlined numbers indicate forecasts



## Stock market indices

Recession fears will likely challenge year-to-date lows. We advise keeping low exposure to risky assets. In recent weeks, risk aversion has risen sharply while volatility has soared, with the VIX from ~19pts in August to ~33pts in September. 'Bear markets' –defined as drawbacks of >20% from their highs– have been triggered in several regions. Major indices have averaged losses of 19.7% in USD so far this year, with significant declines not only in the US, but also in Europe and Asia. Challenges are manifold: Persistently high inflation that has led to a more restrictive stance by a plethora of central banks; an energy crisis in Europe amid an escalating war; and China's virus lockdowns. At the forefront of investors' minds are doubts about the risks of a global recession in 2023, concerned about the impact that a scenario of higher interest rates could have not only on economic growth, but also on companies' earnings and profit margins. In our view, valuations are still unsustainable given [interest rates prospects, which will remain high for most of 2023](#), even while appearing attractive at first sight as they are well below historical averages. As usual, timing the market is the biggest challenge. We think that the most appropriate moment to buy has not arrived yet and volatility will continue. Therefore, we expect new stock market lows. In this context, we revise down our estimated benchmark levels for the S&P500 and the Mexbol. For now, we consider most appropriate to maintain low risk-asset exposure. Although interesting opportunities could arise, we favor defensive and highly liquid stories. In our view, only unequivocal signs of greater clarity in the environment, and the possibility of an earlier-than-anticipated start of an easing cycle, could lead to less punished valuations.

**S&P500 forecast.** We lower our 2022 forecast to 3,450pts from 4,050pts previously, assuming a P/E fwd multiple of 15.0x (vs. 17.0x previously) given a more restrictive scenario and recession risks. For year-end 2023, we anticipate 4,000pts (+15.9% y/y) considering a P/E fwd ratio of 16.2x (lower than the current level of 16.7x), although with a re-rating vs. 2022e given better prospects for a recovery after next year. For 2023 and 2024, we are assuming 3.5% and 7.0% y/y earnings growth, respectively (vs. 6.1% and 8.4% according to Bloomberg's analyst consensus, in the same order).

**Mexbol forecast.** Year-to-date, and as of 3Q22, Mexbol accumulated a 16.2% nominal drop and a 14.8% loss in US dollar terms. Given the challenging backdrop, the market's risk premium has climbed significantly, leading us to revise downwards our expected valuation levels ahead. Considering a FV/EBITDA multiple of 5.8x –vs 6.3x currently–, EBITDA growth of 3.8% y/y, and net debt up +0.4%, we cut our 2022 forecast to 43,700pts. This is even –6% below its current level and much lower than our previous estimate of 53,500pts. In 2023, we foresee a modest re-rating as the magnitude of the upcoming recession, and the possibility that the monetary easing cycle begins, becomes clearer. In that sense, assuming a FV/EBITDA multiple of 6.2x –slightly lower than its current level–, EBITDA growth of 1.4% y/y and net debt rising 1.2%, our reference level for the end of 2023 is 48,800pts (+11.7%). Although we remain cautious on stock market exposure, some opportunities that we envisage include: [Alpek](#) and [Gentera](#), with favorable dynamics in this environment: [Asur](#) and [Oma](#), standing out in Airports; and defensive stories such as AC and Femsa.



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### S&P500 forecast for 2022 Pts

| P/E Fwd | S&P500 | Potential Return (%) |
|---------|--------|----------------------|
| 15.5x   | 3,588  | -4.2                 |
| 15.3x   | 3,530  | -5.7                 |
| 15.0x   | 3,472  | -7.3                 |
| 14.8x   | 3,415  | -8.8                 |
| 14.5x   | 3,357  | -10.3                |

Source: Bloomberg, Banorte

### S&P500 forecast for 2023 Pts

| P/E Fwd | S&P500 | Potential Return (%) |
|---------|--------|----------------------|
| 16.6x   | 4,112  | 9.8                  |
| 16.4x   | 4,062  | 8.5                  |
| 16.2x   | 4,013  | 7.2                  |
| 16.0x   | 3,963  | 5.8                  |
| 15.8x   | 3,914  | 4.5                  |

Source: Bloomberg, Banorte

### Mexbol forecast for 2022 Pts

| FV/EBITDA | Mexbol | Potential Return (%) |
|-----------|--------|----------------------|
| 6.2x      | 48,125 | 3.9                  |
| 6.0x      | 45,920 | -0.9                 |
| 5.8x      | 43,714 | -5.6                 |
| 5.6x      | 41,509 | -10.4                |
| 5.4x      | 39,304 | -15.2                |

Source: Bloomberg, Banorte

### Mexbol forecast for 2022 Pts

| FV/EBITDA | Mexbol | Potential Return (%) |
|-----------|--------|----------------------|
| 6.6x      | 53,278 | 15.0                 |
| 6.4x      | 51,043 | 10.2                 |
| 6.2x      | 48,807 | 5.4                  |
| 6.0x      | 46,572 | 0.5                  |
| 5.8x      | 44,337 | -4.3                 |

Source: Bloomberg, Banorte

## Commodities

Commodities down due to the global tightening wave and recession fears. The GSCI and BCOM stringed two quarters down, falling 15.6% and 4.8% q/q, respectively. This was driven by a sharp contraction in crude-oil prices and, to a lesser degree, losses in precious metals and industrials.



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The balance of risks in energy remains modestly bullish. Crude-oil prices fell sharply as the Fed's tightening cycle turned more aggressive. In turn, fears of a recession have been increasing in relevance, driving expectations of lower demand ahead. At the same time, backwardation in futures –which signals a short-term imbalance in which demand surpasses supply– moderated significantly. Specifically, the 1m/7m Brent spread moved from -17.9 to -9.2 \$/bbl in 3Q22. The spot price of this benchmark ended at 87.9 \$/bbl (-23.4% q/q), with WTI at 79.5 \$/bbl (-24.8% q/q), both showing their first quarterly declines since the start of the pandemic. In this backdrop, [OPEC+ decided to cut output by 2 Mbb/d starting in November](#), justifying this action on grounds of a stronger economic slowdown ahead. Main pressures on supply include: (1) The group's position against price volatility; and (2) its limited capacity to meet production quotas. To the latter we must add new sanctions on Russian imports for its annexation of some Ukrainian regions. In this respect, the escalation in tensions does not look likely to subside in the short term. In response, Russia indefinitely halted gas flows through the Nord Stream 1 pipeline. This has driven European natural gas prices to record highs, with the region's benchmark reaching at some point 311 EUR/MWh. Given this outlook, we believe the balance of risks remains tilted to the upside, even after factoring-in that recession probabilities have increased. Therefore, we adjust downward, but only slightly, the estimated lower limit for Brent, to 80 and 110 \$/bbl for the remainder of the year, bounded by possible inventory buybacks by the US, while not ruling out temporally rallies.



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Metals' performance was negative. Aluminum and copper fell 11.6% and 8.5% q/q, in the same order. The main drivers included Europe's industrial slowdown to reduce gas consumption along with the global deceleration, especially in China. We expect China's stimulus measures to provide some support, albeit downside risks remain. In precious metals, gold retreated 8.1% q/q on an even higher carry disadvantage due to central banks' more restrictive policies and strong USD gains. As a result, we believe this metal will trade between 1,600 and 1,800 \$/t oz. Finally, grains are likely to extend the gains seen in the previous quarter. Challenges remain in the face of low inventories, high fertilizer costs, difficult weather conditions, and more blockages in corridors for grain transportation inside Ukraine.

Commodities price performance and market consensus forecasts

| Commodity            | Unit     | Spot* | Performance (%) |        |        | Market consensus forecasts |       |       |       |        |       |
|----------------------|----------|-------|-----------------|--------|--------|----------------------------|-------|-------|-------|--------|-------|
|                      |          |       | 2019            | 2020   | 2021   | 4Q22                       | 1Q23  | 2Q23  | 3Q23  | 2022   | 2023  |
| WTI                  | \$/bbl   | 88.49 | 34.46           | -20.54 | 55.01  | 92.00                      | 88.00 | 88.00 | 88.00 | 96.23  | 79.17 |
| Brent                | \$/bbl   | 94.15 | 22.68           | -21.52 | 50.15  | 95.00                      | 90.00 | 94.00 | 90.67 | 101.42 | 83.71 |
| Natural Gas (H. Hub) | \$/MMBtu | 7.08  | -25.54          | 15.99  | 46.91  | 7.59                       | 7.00  | 5.00  | 5.00  | 7.14   | 5.41  |
| Gasoline (RBOB)      | \$/gal   | 2.70  | 0.28            | -0.17  | 0.58   | 3.30                       | 3.47  | 3.51  | 3.29  | 3.36   | 3.33  |
| Gold                 | \$/t oz  | 1,711 | 18.31           | 25.12  | -3.64  | 1,750                      | 1,750 | 1,775 | 1,750 | 1,825  | 1,838 |
| Silver               | \$/t oz  | 20.48 | 15.21           | 47.89  | -11.72 | 20.00                      | 20.56 | 20.83 | 21.00 | 21.61  | 20.88 |
| Copper               | \$/mt    | 7,680 | 3.50            | 25.79  | 25.17  | 7,500                      | 7,617 | 7,767 | 8,000 | 8,737  | 8,071 |
| Corn                 | ¢/bu     | 678   | 3.40            | 24.82  | 22.57  | 700                        | 738   | 703   | 630   | 690    | 650   |
| Wheat                | ¢/bu     | 884   | 11.03           | 14.63  | 20.34  | 888                        | 880   | 892   | 872   | 922    | 865   |

Source: Bloomberg \*Last closing price; RBOB (Reformulated gasoline blendstock for oxygenate blending)

## Corporate Debt

During the first nine months of the year, corporate debt market placements have risen to MXN 123.7 billion (29.65% y/y) on the back of substantial dynamism during the third quarter (with a new record for August since 2018, at MXN 40.5 billion). In this sense, by the end of September, 89.4% of the amount issued had the highest local-scale credit ratings ('AAA / AA+'). Moreover, the preference for unsecured bonds was notable, with 86.2% of the issued amount, while ABS and FF accounted for 13.8%. Floating-rate notes (based on TIIE-28 and O/N TIIE) represented 49.5%, followed by fixed rates at 29.1%, and real fixed rates with 21.4%. Given the complex economic outlook, we believe these trends will probably remain in place during the last months of 2022.

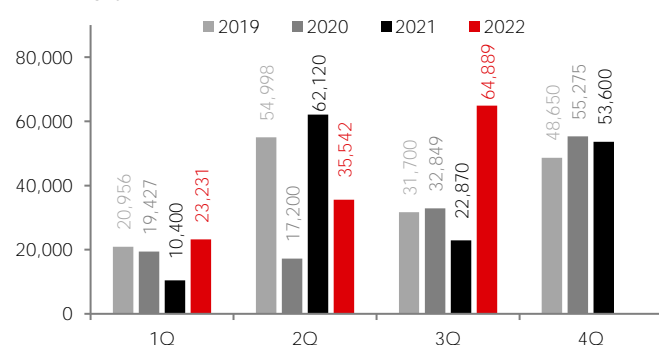


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Despite of a backdrop characterized by higher interest rates and the withdrawal of global liquidity, we expect strength to continue in 4Q22, with activity levels near those seen in previous years. This is based on what is already recorded in the pipeline, mainly from well-known issuers such as Cetelem, Elektra, Femsa, Gruma and Orbia, among others. Therefore, we anticipate that investors will keep favoring high quality, unsecured notes, focused on issuers or sectors considered as 'safe' (e.g., Food, Beverages, Consumer Discretionary, etc.), given a complicated outlook. In spreads, samples –ordered by rating– have stood at slightly lower levels than those observed before the pandemic. High demand in recent auctions have driven premium rates at issue date downwards, as well as spreads on the rest of outstanding bonds (-9bps for 'AAA' and -17bps for 'AA+' y/y). Furthermore, we expect adjustments that could remain in this downward path, extending the trend in recent months. In this context, we reaffirm our issuance forecast of a level close to MXN 165 billion for full-year 2022, which would imply 11% y/y growth.

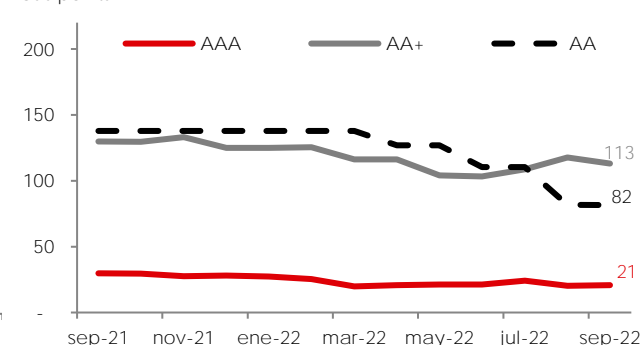
However, it is our take that bondholders will be more cautious in 2023, exacerbated by fears of a possible recession and quite complex inflationary dynamics. This could increase fears about a deterioration in credit quality, as it suggests a potential deceleration in companies' sales as well as lower operating margins. Therefore, investors will closely watch corporate issuers' financial health, with higher appetite for floating rates with relatively short maturities. Given this situation, and analyzing next year's maturities, we expect an issued amount close to MXN 150 billion for 2023, a 9.1% drop from our 2022 forecast.

Long-term issued amount by quarter  
MXN Millions



Source: Banorte / BMV / BIVA / PIP

Spread Evolution – Unsecured TIIE-28  
Basis points



Source: Banorte / BMV / PIP, as of September 2022

## Quantitative Analysis

**Nowcasting Mexico's Economic Activity.** In our previous Quarterly Outlook ([3Q22 Outlook](#)), we presented a model that produces a nowcast of IGAE's growth, using high-frequency financial and transactional data, as well as incorporating a wide range of macroeconomic information as it becomes available. It is worth noting that the IGAE (Global Economic Activity Indicator), is one of the most relevant economic data points in Mexico given that it allows to monitor Mexico's growth dynamics. However, despite that the IGAE is a good monthly GDP-proxy –since it covers around 95% of Mexico's GDP in one month– it has a 56-day lag. With this approach, our goal is to have an accurate and timely diagnosis of **Mexico's economic growth** and to assess its effects in current economic conditions.



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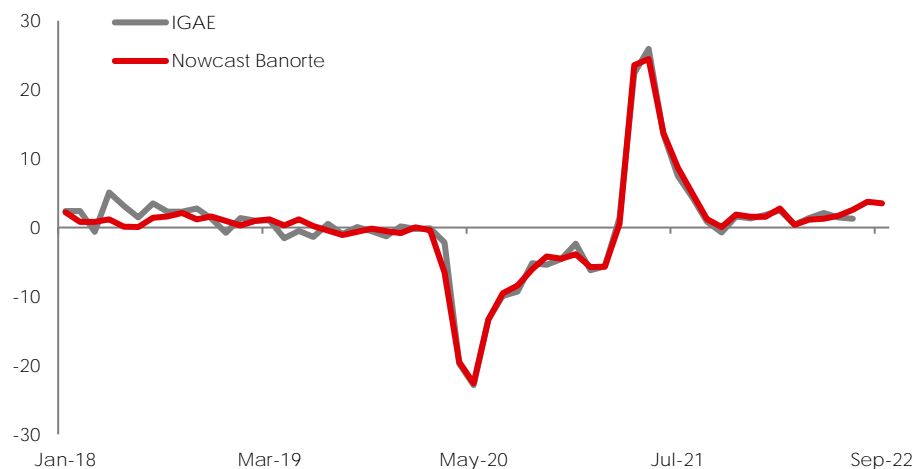
Our nowcast model has proven to have a high accuracy forecasting IGAE's growth just 13 days after the end of the month (refer to the chart below). Our model also gives us a fair estimate of IGAE's economic growth just one day after the end of each month. We estimate the Nowcast model using MIDAS regressions, which allows us to use high frequency data. To preserve parsimony, we also use factor analysis techniques to summarize the information from 300 financial and transactional series with a daily frequency.

We highlight that our model has shown to be more accurate than other market forecasts, and even improves the predictive power of other nowcast indicators such as INEGI's *Timely Indicator of Economic Activity* (IOAE). In this regard, our Nowcast model estimates:

- A **3.73% nsa expansion in August's economic activity**; and
- A **3.32% nsa growth in September's output**

We highlight that our nowcast for August and September is consistent with a 3% yoy nsa growth for Mexico's GDP in 3Q22 (refer to Mexico's essay)

IGAE vs Nowcast Banorte  
% y/y



Source: Banorte

## Quantitative Analysis

**Fed's topics classification using NLP and ML techniques.** We recently published a research note where we described a model using natural language processing (NLP) techniques that classify and interpret FOMC statements. In addition, it also provides a methodology to confirm whether the communication made by the central bank is consistent with the monetary policy implemented (refer to: [Welcome to the Machine \(Learning\): An NLP framework for analyzing the Fed's monetary policy statements](#)).

The relationship between the Fed funds rate and the semantic classification obtained was also analyzed. In this regard, the most important finding in our research note was the degree of strength in the relationship between the Fed funds rate and the semantic classification obtained, given that the latter can explain 9 out of 10 rate movements. The model also defines the range of variation of the terminal reference rate.

The model estimates a terminal rate between 4.25% and 5.25% (upper range). After the monetary policy announcement on September 21<sup>st</sup>, the model classified the statement with the central topic that anticipates the terminal rate at 4.25% (median estimated within Topic 8; refer to bottom chart). However, the assigned topic also estimates that the maximum value for the terminal rate could stand at 5.25%.

In addition, the model classified June and July's monetary policy statements with the same topic as September's press release. We also highlight that our model allowed us to anticipate, from the beginning of the US restrictive cycle (March 16, 2022), a terminal rate within the above-mentioned range.

The model supports our view that the terminal rate will probably reach 5% in 1Q23 (upper range). Looking ahead, our NLP framework will continue to allow us to identify any change in the Fed's terminal rate through the classification of the monetary policy announcements.



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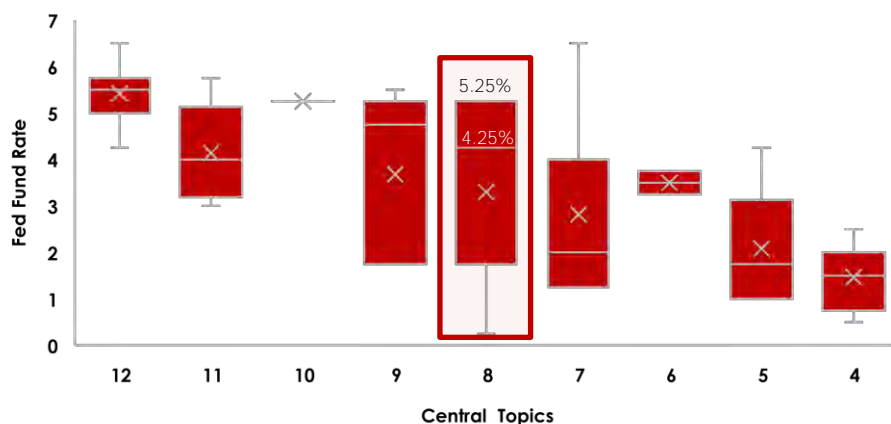


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Range of Fed Funds Rate by Topic  
Central Topics



Source: Banorte, Federal Reserve, Bloomberg



## Quantitative Analysis

FOMC members' **speeches**. To classify and have an objective interpretation about the speeches of the voting and alternate members of the Federal Open Market Committee (FOMC), we built an analytical tool based on natural language processing (NLP) and machine learning (ML) techniques. The classification of the speeches helps identify the hawkish or dovish tone of each member regarding monetary policy. It should be noted that Philip N. Jefferson, Lisa D. Cook, and Michael S. Barr are not included in this essay due to their recent incorporation as a member of the Board of Governors of the Fed.

The speeches usually serve as aggregators of qualitative analysis on the expected behavior of each FOMC member in monetary policy decisions. The analytical tools presented allow the extraction of the most valuable information and an objective interpretation around the position of the members of the central bank.

NLP and text mining methodologies were used to process the unstructured data (speeches from January 2013 to September 2022). 25 relevant topics were identified in 981 speeches (interviews and welcoming remarks were not considered to avoid possible biases in the classification) applying unsupervised learning models. We analyzed the best terms that describe each preponderant topic and constructed an index that takes values between -1 and 1, where values close to 1 represent hawkish speeches and those close to -1 represent dovish speeches.

The Hawkish & Dovish index allows us to analyze (since 2013) the congruence in the speeches of FOMC members and their vote in monetary policy decisions. Since the beginning of the US tightening cycle (March 16, 2022), the index shows a hawkish tone in most of them and suggest that this will continue in coming months (refer to the bottom charts). The above lends support to the idea that the Fed's terminal rate will be 5%, estimated by our NLP model as described in the previous essay.



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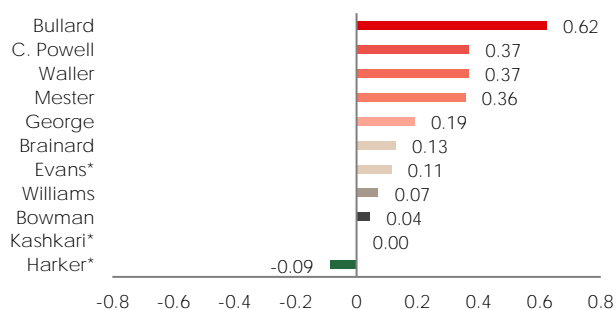


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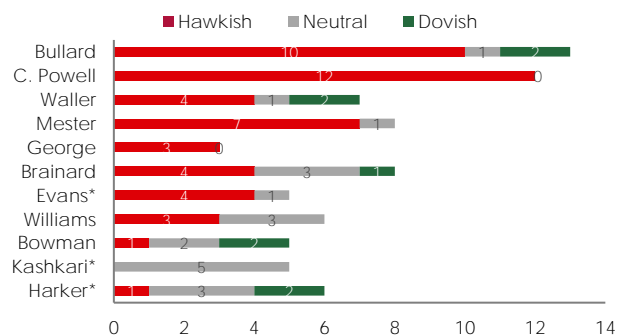
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Hawk & Dove Index  
Speeches tone (Mar'22 - Sep'22)



Source: Banorte, Federal Reserve  
Note: C. Powell speeches are in his role as Fed Chairman

Speeches Classification  
Total speeches (Mar'22 - Sep'22)



Source: Banorte, Federal Reserve

## Quantitative Analysis

**Nowcasting Model for Mexico's Private Consumption.** Global economies have been facing a more complicated macroeconomic outlook this quarter. Although the COVID-19 pandemic has waned, many economic activities have not entirely recovered. On the other hand, the war between Russia and Ukraine has impacted energy and food prices, leading central banks to restrictive monetary policies.

In Mexico, 3Q22 led to the resumption of in-person classes for educational services at all levels; as a result, it will positively affect economic activities such as transportation, recreation, and food and beverage services, among others. In addition, the effects of the labor reform, which took place one year ago, are going to be totally incorporated into all economic sectors.

Making use of traditional and non-traditional economic data the *Nowcasting* model for private consumption estimates growth rates of 7.7% and 7.1% for August and September y/y (nsa). From this, it follows that, in 3Q22 private consumption posted 6.6% growth. We highlight that private consumption in 2Q22 represented 49.7% of Mexico's GDP, and it is the macroeconomic aggregate that best predicts the country's economic business cycle.

From these computed estimates, a SARIMAX model was employed with principal components as regressors, using theoretically and empirically relevant variables associated with goods and services. For example, the model uses debit and credit card transactions made in restaurants, higher education services, real estate leasing, hotels, supermarkets, groceries, and tourist services, among others. In real terms, credit/debit card transactions have grown 20.0% and 11.1% y/y in 3Q22. Meanwhile, in the same period, non-traditional data support these encouraging results; for example, Google's mobility index for leisure activities, transportation, and supermarket visits posted 24%, 20%, and 14.5% y/y growth, respectively.

Finally, gasoline and electricity demand, hotel occupancy, US industrial production, remittances, and the number of workers in the formal sector are traditional variables that also give positive signals for the model. This implies that private consumption has maintained better growth prospects, as seen in previous quarters, and is still not strictly affected by heavy headwinds, such as Banxico's rate hikes and inflation.

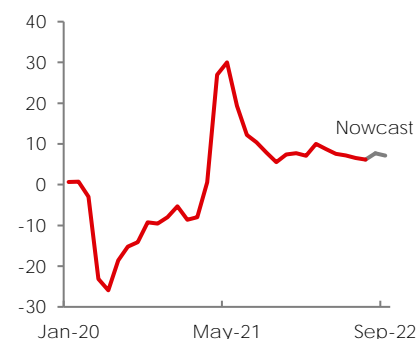


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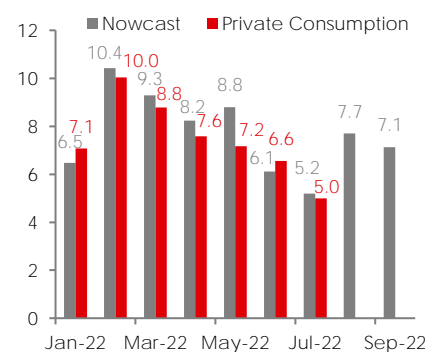
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Mexico's Private Consumption  
%, y/y



Source: Banorte with data from INEGI

Nowcast model vs. official statistics  
%, y/y



Source: Banorte with data from INEGI

## Recent research notes

### Mexico

- *September inflation – A downward surprise, but the trend remains challenging*, October 7, 2022, [<pdf>](#)
- *Mexico: Complementary agreement to the Plan Against Inflation – Actions focused on food items*, October 3, 2022, [<pdf>](#)
- *Banxico – We anticipate the terminal rate at 11% by the end of 1Q23*, September 29, 2022, [<pdf>](#)
- *Budget Proposal 2023 – A rosy scenario focused on social programs*, September 9, 2022, [<pdf>](#)
- *2Q22 GDP – Good dynamism in the first half of the year, albeit with risks ahead*, August 25, 2022, [<pdf>](#)
- *Moody's downgrades Mexico to 'Baa2', with the outlook from negative to stable*, July 8, 2022, [<pdf>](#)
- *S&P affirms Mexico 'BBB' rating, upgrading the outlook to stable*, July 6, 2022, [<pdf>](#)
- *Fitch affirms Mexico 'BBB-' rating, with a stable Outlook*, May 17, 2022, [<pdf>](#)
- *FDI – Inflows of US\$31.6 billion in 2021, up 8.7% y/y*, February 22, 2022, [<pdf>](#)
- *Minimum wage – 22% increase in 2022*, December 2, 2021, [<pdf>](#)
- *Banxico – Victoria Rodriguez is nominated as next Governor*, November 24, 2022, [<pdf>](#)
- *The IMF renews Mexico's Flexible Credit Line for a new two-year term*, November 22, 2021, [<pdf>](#)

### Quantitative Research

- *Fed's monetary policy: Our NLP model supports our 5% forecast for the terminal rate*, September 21, 2022, [<pdf>](#)

### Fixed-Income, FX, and Commodities

- *Liability Management Transaction*, October 7, 2022, [<pdf>](#)
- *OPEC+: Agrees the biggest global supply cut since the start of the pandemic*, October 5, 2022, [<pdf>](#)
- *Fixed-Income and FX Weekly*, October 3, 2022, [<pdf>](#)
- *4Q22 Auction Calendar: Reshuffling in favor of fixed instead of floating rates*, September 30, 2022, [<pdf>](#)
- *Pension Funds Outlook – August 2022*, September 22, 2022, [<pdf>](#)
- *Trade Idea: Pay TIEE-IRS (26x1), receive 2-year SOFR*, August 18, 2022, [<pdf>](#)
- *3- and 6-year Bondes G syndicated auction results*, July 20, 2022, [<pdf>](#)
- *New 30-year Mbono Jul'53 syndicated auction results*, June 29, 2022, [<pdf>](#)
- *Profit taking on 2-year TIEE-IRS payer*, March 4, 2022, [<pdf>](#)
- *New levels to protect profits in our trade idea of paying 2-year TIEE-IRS*, February 16, 2022, [<pdf>](#)
- *MoF - Refinancing operation in the euro market*, February 8, 2022, [<pdf>](#)
- *The MoF issued USD bonds and refinanced its external debt*, January 5, 2022, [<pdf>](#)
- *Mexico announces global USD bond offering and public offering*, January 4, 2022, [<pdf>](#)
- *MoF's Financing Plan 2022: Active liability management reduced financing requirements*, December 28, 2021, [<pdf>](#)

- *Collective release of crude oil reserves*, November 23, 2021, [<pdf>](#)
- *New Development Bonds indexed to the TIE funding, Bondes F*, August 18, 2021, [<pdf>](#)

## Equities

- *Flash OMA: Domestic traffic keeps driving growth*, October 7, 2022, [<pdf>](#)
- *Flash ASUR: Surprises favorably, supported by strong international traffic performance*, October 5, 2022, [<pdf>](#)
- *Flash GAP: Faster growth rate in demand*, October 5, 2022, [<pdf>](#)
- *Flash VOLAR: Solid passenger growth continues, although fuel pressures remain*, October 5, 2022, [<pdf>](#)
- *AIRPORTS: Passenger growth accelerates*, September 9, 2022, [<pdf>](#)
- *Flash GMEXICO: Agreement reached to acquire Planigrupo*, September 5, 2022, [<pdf>](#)

## Corporate Debt

- *Corporate Bond Market Review: Aug 2022*, September 8, 2022, [<pdf>](#)
- *PEMEX – Higher crude-oil prices boost results*, July 28, 2022, [<pdf>](#)
- *Moody's downgrades PEMEX's ratings to 'B1'; outlook is stable*, July 12, 2022, [<pdf>](#)
- *MoF announced strategy to support PEMEX*, December 6, 2021, [<pdf>](#)
- *Moody's downgrades PEMEX's ratings; outlook remains negative*, July 28, 2021, [<pdf>](#)
- *PEMEX received an additional fiscal credit of MXN 73.3 billion*, February 22, 2020, [<pdf>](#)
- *Effects of the pandemic in 2020*, December 17, 2020, [<pdf>](#)
- *Credit Ratings Tutorial*, December 17, 2020, [<pdf>](#)
- *Pemex's assets exchange for Federal Government Development Bonds*, December 15, 2020, [<pdf>](#)

Note: All our publications are available in the [following link](#).

## Recent trade ideas

| Trade idea                                      | P/L | Initial date | End date  |
|---|-----|--------------|-----------|
| Pay TIE-IRS (26x1), receive 2-year SOFR         |     | 18-Aug-22    |           |
| Pay 2-year TIE-IRS (26x1)                       | P   | 4-Feb-22     | 4-Mar-22  |
| Tactical longs in Mbono Mar'26                  | P   | 14-May-21    | 7-Jun-21  |
| Receive 6-month TIE-IRS (6x1)                   | P   | 17-Dec-20    | 3-Mar-21  |
| Long positions in Udibono Nov'23                | L   | 11-Feb-21    | 26-Feb-21 |
| Long positions in Mbono May'29 & Nov'38         | P   | 7-Sep-20     | 18-Sep-20 |
| Long positions in Udibono Dec'25                | P   | 23-Jul-20    | 10-Aug-20 |
| Long positions in Udibono Nov'35                | P   | 22-May-20    | 12-Jun-20 |
| Long positions in Mbono May'29                  | P   | 5-May-20     | 22-May-20 |
| Tactical longs in 1- & 2-year TIE-IRS           | P   | 20-Mar-20    | 24-Apr-20 |
| Long positions in Udibono Nov'28                | P   | 31-Jan-20    | 12-Feb-20 |
| Long positions in Udibono Jun'22                | P   | 9-Jan-20     | 22-Jan-20 |
| Long positions in Mbono Nov'47                  | L   | 25-Oct-19    | 20-Nov-19 |
| Long positions in Mbonos Nov'36 & Nov'42        | P   | 16-Aug-19    | 24-Sep-19 |
| Long positions in the short-end of Mbonos curve | P   | 19-Jul-19    | 2-Aug-19  |
| Long positions in Mbonos Nov'42                 | L   | 5-Jul-19     | 12-Jul-19 |
| Long positions in Mbonos Nov'36 & Nov'38        | P   | 10-Jun-19    | 14-Jun-19 |
| Long positions in Mbonos Jun'22 & Dec'23        | P   | 9-Jan-19     | 12-Feb-19 |
| Long floating-rate Bondes D                     | P   | 31-Oct-18    | 3-Jan-19  |
| Long CPI-linked Udibono Jun'22                  | L   | 7-Aug-18     | 31-Oct-18 |
| Long floating-rate Bondes D                     | P   | 30-Apr-18    | 3-Aug-18  |
| Long 20- to 30-year Mbonos                      | P   | 25-Jun-18    | 9-Jul-18  |
| Short Mbonos                                    | P   | 11-Jun-18    | 25-Jun-18 |
| Long CPI-linked Udibono Jun'19                  | P   | 7-May-18     | 14-May-18 |
| Long 7- to 10-year Mbonos                       | L   | 26-Mar-18    | 23-Apr-18 |
| Long CPI-linked Udibono Jun'19                  | P   | 20-Mar-18    | 26-Mar-18 |
| Long 5- to 10-year Mbonos                       | P   | 5-Mar-18     | 20-Mar-18 |
| Long floating-rate Bondes D                     | P   | 15-Jan-18    | 12-Mar-18 |
| Long 10-year UMS Nov'28 (USD)                   | L   | 15-Jan-18    | 2-Feb-18  |

P = Profit, L = Loss

## Track of directional fixed-income trade recommendations

| Trade idea  | Entry  | Target | Stop-loss | Closed | P/L            | Initial date | End date  |
|---|--------|--------|-----------|--------|----------------|--------------|-----------|
| Long Udibono Dec'20   | 3.05%  | 2.90%  | 3.15%     | 3.15%  | L              | 9-Aug-17     | 6-Oct-17  |
| 5y 10y TIE-IRS steepener  | 28bps  | 43bps  | 18bps     | 31bps  | P <sup>2</sup> | 15-Feb-17    | 15-Mar-17 |
| 5y 10y TIE-IRS steepener  | 35bps  | 50bps  | 25bps     | 47bps  | P              | 5-Oct-16     | 19-Oct-16 |
| Long Mbono Jun'21   | 5.60%  | 5.35%  | 5.80%     | 5.43%  | P              | 13-Jul-16    | 16-Aug-16 |
| Long Udibono Jun'19   | 1.95%  | 1.65%  | 2.10%     | 2.10%  | L              | 13-Jul-16    | 16-Aug-16 |
| Receive 1-year TIE-IRS (13x1)   | 3.92%  | 3.67%  | 4.10%     | 3.87%  | P              | 12-Nov-15    | 8-Feb-16  |
| Long spread 10-year TIE-IRS vs US Libor                                     | 436bps | 410bps | 456bps    | 410bps | P              | 30-Sep-15    | 23-Oct-15 |
| Receive 9-month TIE-IRS (9x1)   | 3.85%  | 3.65%  | 4.00%     | 3.65%  | P              | 3-Sep-15     | 18-Sep-15 |
| Spread TIE 2/10 yrs (flattening)  | 230bps | 200bps | 250bps    | 200bps | P              | 26-Jun-15    | 29-Jul-15 |
| Long Mbono Dec'24   | 6.12%  | 5.89%  | 6.27%     | 5.83%  | P              | 13-Mar-15    | 19-Mar-15 |
| Relative-value trade, long 10-year Mbono (Dec'24) / flattening of the curve |        |        |           |        | P              | 22-Dec-14    | 6-Feb-15  |
| Pay 3-month TIE-IRS (3x1)   | 3.24%  | 3.32%  | 3.20%     | 3.30%  | P              | 29-Jan-15    | 29-Jan-15 |
| Pay 9-month TIE-IRS (9x1)   | 3.28%  | 3.38%  | 3.20%     | 3.38%  | P              | 29-Jan-15    | 29-Jan-15 |
| Pay 5-year TIE-IRS (65x1)   | 5.25%  | 5.39%  | 5.14%     | 5.14%  | L              | 4-Nov-14     | 14-Nov-14 |
| Long Udibono Dec'17   | 0.66%  | 0.45%  | 0.82%     | 0.82%  | L              | 4-Jul-14     | 26-Sep-14 |
| Relative-value trade, long Mbonos 5-to-10-year                              |        |        |           |        | P              | 5-May-14     | 26-Sep-14 |
| Receive 2-year TIE-IRS (26x1)   | 3.75%  | 3.55%  | 3.90%     | 3.90%  | L              | 11-Jul-14    | 10-Sep-14 |
| Receive 1-year TIE-IRS (13x1)   | 4.04%  | 3.85%  | 4.20%     | 3.85%  | P              | 6-Feb-14     | 10-Apr-14 |
| Long Udibono Jun'16   | 0.70%  | 0.45%  | 0.90%     | 0.90%  | L              | 6-Jan-14     | 4-Feb-14  |
| Long Mbono Jun'16   | 4.47%  | 3.90%  | 4.67%     | 4.06%  | P              | 7-Jun-13     | 21-Nov-13 |
| Receive 6-month TIE-IRS (6x1)   | 3.83%  | 3.65%  | 4.00%     | 3.81%  | P              | 10-Oct-13    | 25-Oct-13 |
| Receive 1-year TIE-IRS (13x1)   | 3.85%  | 3.55%  | 4.00%     | 3.85%  | --             | 10-Oct-13    | 25-Oct-13 |
| Long Udibono Dec'17   | 1.13%  | 0.95%  | 1.28%     | 1.35%  | L              | 9-Aug-13     | 10-Sep-13 |
| Receive 9-month TIE-IRS (9x1)   | 4.50%  | 4.32%  | 4.65%     | 4.31%  | P              | 21-Jun-13    | 12-Jul-13 |
| Spread TIE-Libor (10-year)  | 390bps | 365bps | 410bps    | 412bps | L              | 7-Jun-13     | 11-Jun-13 |
| Receive 1-year TIE-IRS (13x1)   | 4.22%  | 4.00%  | 4.30%     | 4.30%  | L              | 19-Apr-13    | 31-May-13 |
| Long Udibono Jun'22   | 1.40%  | 1.20%  | 1.55%     | 0.97%  | P              | 15-Mar-13    | 3-May-13  |
| Receive 1-year TIE-IRS (13x1)   | 4.60%  | 4.45%  | 4.70%     | 4.45%  | P              | 1-Feb-13     | 7-Mar-13  |
| Long Mbono Nov'42   | 6.22%  | 5.97%  | 6.40%     | 5.89%  | P              | 1-Feb-13     | 7-Mar-13  |
| Long Udibono Dec'13   | 1.21%  | 0.80%  | 1.40%     | 1.40%  | L              | 1-Feb-13     | 15-Apr-13 |
| Receive 1-year TIE-IRS (13x1)   | 4.87%  | 4.70%  | 5.00%     | 4.69%  | P              | 11-Jan-13    | 24-Jan-13 |
| Receive TIE Pay Mbono (10-year)   | 46bps  | 35bps  | 54bps     | 54bps  | L              | 19-Oct-12    | 8-Mar-13  |
| Spread TIE-Libor (10-year)  | 410bps | 385bps | 430bps    | 342bps | P              | 21-Sep-13    | 8-Mar-13  |
| Long Udibono Dec'12   | +0.97% | -1.50% | +1.20%    | -6.50% | P              | 1-May-12     | 27-Nov-12 |
| Long Udibono Dec'13   | +1.06% | 0.90%  | +1.35%    | 0.90%  | P              | 1-May-12     | 14-Dec-12 |

1 Carry + roll-down gains of 17bps

2. Closed below target and before the proposed horizon date due to changes in market conditions that have differed from our expectations.

## Short-term tactical trades

| Trade Idea    | P/L* | Entry | Exit  | Initial Date | End date  |
|---------------|------|-------|-------|--------------|-----------|
| Long USD/MXN  | P    | 19.30 | 19.50 | 11-Oct-19    | 20-Nov-19 |
| Long USD/MXN  | P    | 18.89 | 19.35 | 20-Mar-19    | 27-Mar-19 |
| Long USD/MXN  | P    | 18.99 | 19.28 | 15-Jan-19    | 11-Feb-19 |
| Long USD/MXN  | P    | 18.70 | 19.63 | 16-Oct-18    | 3-Jan-19  |
| Short USD/MXN | P    | 20.00 | 18.85 | 2-Jul-18     | 24-Jul-18 |
| Long USD/MXN  | P    | 19.55 | 19.95 | 28-May-18    | 4-Jun-18  |
| Long USD/MXN  | P    | 18.70 | 19.40 | 23-Apr-18    | 14-May-18 |
| Long USD/MXN  | P    | 18.56 | 19.20 | 27-Nov-17    | 13-Dec-17 |
| Long USD/MXN  | L    | 19.20 | 18.91 | 6-Nov-17     | 17-Nov-17 |
| Long USD/MXN  | P    | 18.58 | 19.00 | 9-Oct-17     | 23-Oct-17 |
| Short USD/MXN | L    | 17.80 | 18.24 | 4-Sep-17     | 25-Sep-17 |
| Long USD/MXN  | P    | 14.40 | 14.85 | 15-Dec-14    | 5-Jan-15  |
| Long USD/MXN  | P    | 13.62 | 14.11 | 21-Nov-14    | 3-Dec-14  |
| Short EUR/MXN | P    | 17.20 | 17.03 | 27-Aug-14    | 4-Sep-14  |
| Short USD/MXN | L    | 12.70 | 13.00 | 26-Jul-13    | 21-Aug-13 |

Source: Banorte

## Track of the directional FX trade recommendations\*

| Trade Idea                   | Entry | Target | Stop-loss | Closed | P/L* | Initial Date | End date  |
|------------------------------|-------|--------|-----------|--------|------|--------------|-----------|
| Long USD/MXN                 | 18.57 | 19.50  | 18.20     | 18.20  | L    | 19-Jan-18    | 2-Apr-18  |
| Long USD/MXN                 | 14.98 | 15.50  | 14.60     | 15.43  | P    | 20-Mar-15    | 20-Apr-15 |
| Short EUR/MXN                | 17.70 | n.a.   | n.a.      | 16.90  | P    | 5-Jan-15     | 15-Jan-15 |
| Short USD/MXN                | 13.21 | n.a.   | n.a.      | 13.64  | L    | 10-Sep-14    | 26-Sep-14 |
| USD/MXN call spread**        | 12.99 | 13.30  | n.a.      | 13.02  | L    | 6-May-14     | 13-Jun-14 |
| Directional short USD/MXN    | 13.00 | 12.70  | 13.25     | 13.28  | L    | 31-Oct-13    | 8-Nov-13  |
| Limit short USD/MXN          | 13.25 | 12.90  | 13.46     | --     | --   | 11-Oct-13    | 17-Oct-13 |
| Short EUR/MXN                | 16.05 | 15.70  | 16.40     | 15.69  | P    | 29-Apr-13    | 9-May-13  |
| Long USD/MXN                 | 12.60 | 12.90  | 12.40     | 12.40  | L    | 11-Mar-13    | 13-Mar-13 |
| Long USD/MXN                 | 12.60 | 12.90  | 12.40     | 12.85  | P    | 11-Jan-13    | 27-Feb-13 |
| Tactical limit short USD/MXN | 12.90 | 12.75  | 13.05     | --     | --   | 10-Dec-12    | 17-Dec-12 |
| Short EUR/MXN                | 16.64 | 16.10  | 16.90     | 16.94  | L    | 03-Oct-12    | 30-Oct-12 |

\* Total return does not consider carry gain/losses

\*\* Low strike (long call) at 13.00, high strike (short call) at 13.30 for a premium of 0.718% of notional amount



## Analyst Certification

**We, Alejandro Padilla Santana, Juan Carlos Alderete Macal, Alejandro Cervantes Llamas, Manuel Jiménez Zaldívar, Marissa Garza Ostos, Katia Celina Goya Ostos, Francisco José Flores Serrano, José Luis García Casales, Víctor Hugo Cortes Castro, José Itzamna Espitia Hernández, Carlos Hernández García, Leslie Thalía Orozco Vélez, Hugo Armando Gómez Solís, Yazmín Selene Pérez Enríquez, Cintia Gisela Nava Roa, Miguel Alejandro Calvo Domínguez, Daniela Olea Suárez, José De Jesús Ramírez Martínez, Gerardo Daniel Valle Trujillo, Luis Leopoldo López Salinas, Isaías Rodríguez Sobrino, Paola Soto Leal, Daniel Sebastián Sosa Aguilar and Salvador Austria Valencia certify that the points of view expressed in this document are a faithful reflection of our personal opinion on the company (s) or firm (s) within this report, along with its affiliates and/or securities issued. Moreover, we also state that we have not received, nor receive, or will receive compensation other than that of Grupo Financiero Banorte S.A.B. of C.V for the provision of our services.**

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|             |  |
|-------------|--|
|             | <i>Reference</i>   |
| <i>BUY</i>  | <i>When the share expected performance is greater than the MEXBOL estimated performance.</i> |
| <i>HOLD</i> | <i>When the share expected performance is similar to the MEXBOL estimated performance.</i>   |
| <i>SELL</i> | <i>When the share expected performance is lower than the MEXBOL estimated performance.</i>   |

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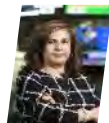
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