

Mexico Economic Outlook

October 2022





01 Global Economic Outlook October 2022

Creating Opportunities

The persistence of inflation forces central banks to front-load interest rate hikes, contributing to both financial volatility and recession fears

RECENT DEVELOPMENTS IN THE WORLD ECONOMY

GROWTH MODERATION

On inflation, monetary tightening, the UKR war and covid (mostly in China), despite labor markets' relative strength.

DISRUPTION IN GAS MARKETS

Sharp rise in prices in Europe due to remarkable Russia's supply cuts.

COMMODITIES (EX-GAS)

Prices are high, but declining on weaker growth prospects.

SUPPLY BOTTLENECKS

Still at high levels, but easing, mainly in the US.



STILL HIGH INFLATION

Inflation continues to surprise upwards, but moderation signs suggest it may soon peak.



FRONT-LOADING OF INTEREST RATES HIKES

Faster and sharper monetary tightening than expected as central banks' commit to price stability.



Growth is losing momentum as reopening effects fade and inflation, monetary tightening, gas disruptions in Europe and covid in China weigh negatively

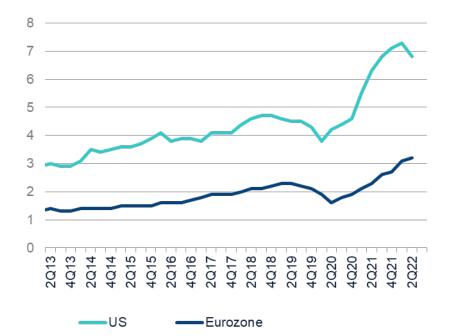
PMI INDICATORS

(MORE THAN 50: EXPANSION; LESS THAN 50: CONTRACTION)

SLOWDOWN AND TECHNICAL RECESSION DECELERATION, BUT AT A SOFTER THAN TIMID REBOUND AMID REAL ESTATE DESPITE EMPLOYMENT RESILIENCE EXPECTED PACE TENSIONS AFTER NEW COVID SHOCK 80 70 60 50 40 30 Sep-22 Jan-22 Mar-22 May-22 Jul-22 Sep-22 May-21 Jan-22 Mar-22 May-22 Jul-22 Sep-21 Nov-21 Jan-22 Mar-22 May-22 Jul-22 Sep-22 Mar-21 Jul-21 Sep-21 Nov-21 Jan-21 Jan-21 Mar-21 Jan-21 Mar-21 May-21 Jul-21 May-2' Jul-2 Sep-2 Nov-2 US Eurozone China **PMI** Services PMI Manufacturing

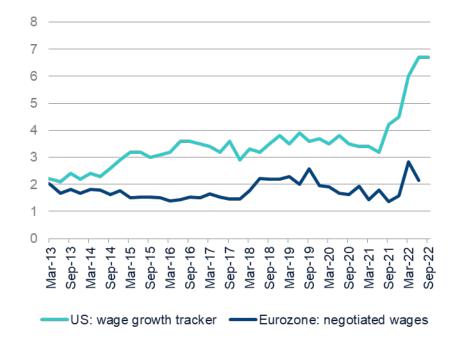
Labor markets exhibit strength despite the ongoing activity deceleration; wages are growing, but at a slower pace than inflation

LABOR MARKET: VACANCY RATE (%, QUARTERLY AVERAGES)



* Vacancies as a proportion of the sum of total employment and the number of vacancies. Source: BBVA Research based on data from Haver.

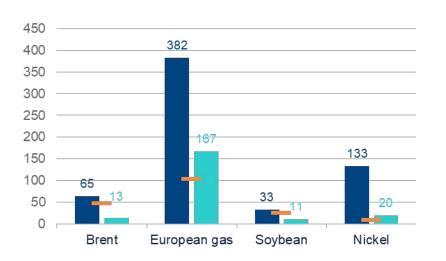
WAGE GROWTH INDICATORS (% YoY, QUARTERLY DATA)



Source: BBVA Research based on Atlanta Fed and ECB data

Gas prices have skyrocketed on Russia's supply cuts, but other commodity prices have eased recently in line with concerns on global moderation

COMMODITY PRICES



Maximum change in the year up to the end of 3Q22Change in the year up to the end of 3Q22

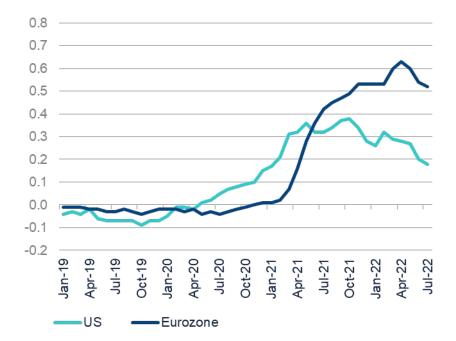
-Change in the year up to the end of 2Q22

- Natural gas prices in Europe jumped 31% in the 3T22 on decreasing supply from Russia.
- Oil, food and metal prices eased from the middle of the year on worse prospects for global demand; supply issues prevented a sharper correction.
- Brent prices declined 23% over the 3T22 despite the announced production cut by the OPEC and the EU embargo on Russia's oil exports.
- The recent deal to unlock Ukraine grain exports has helped to drive down prices.

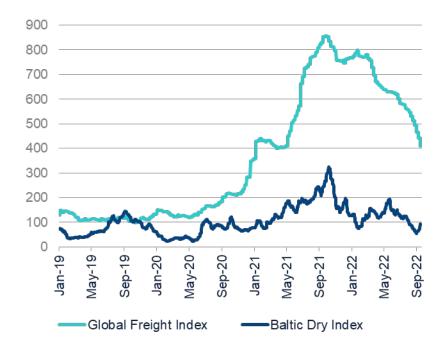
Bottlenecks are easing, but remain at very high levels, mainly in Europe

BBVA RESEARCH BOTTLENECK INDEX

(INDEX: AVERAGE SINCE 2003 = 0)



CONTAINER FREIGHT RATES: GLOBAL AND BALTIC (INDEX: 2012 = 100)



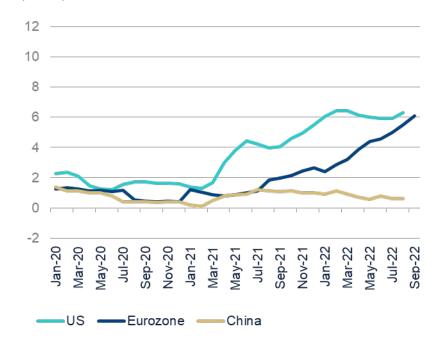
Source: BBVA Research.

Inflation remains very high and continues to surprise to the upside, but there are increasing signs of moderation

INFLATION: CPI (Y/Y %)

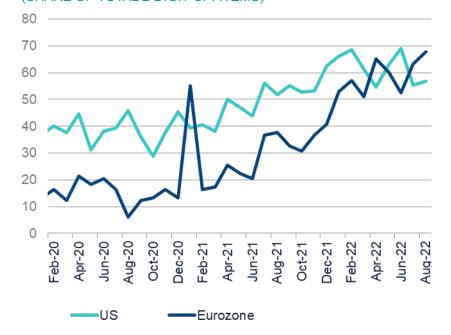


CORE INFLATION: CPI

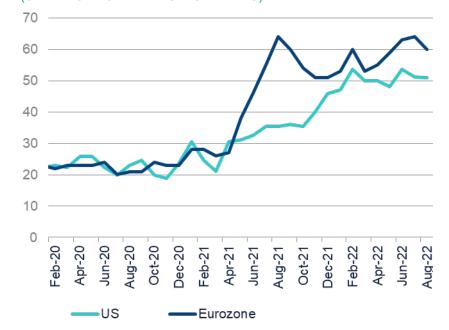


Price adjustments have become more widespread and also more frequent

ITEMS OF THE CPI BASKET WITH ANNUALIZED MONTHLY INFLATION HIGHER THAN 4% (SHARE OF TOTAL 2-DIGIT CPI ITEMS)



ITEMS OF THE CPI BASKET WITH THREE CONSECUTIVE MONTHLY PRICE RISES (SHARE OF TOTAL 2-DIGIT CPI ITEMS)



Source: BBVA Research based on local statistics.

Source: BBVA Research based on local statistics.

The front-loading of interest rate hikes has generated financial volatility; sovereign bond yields moved sharply up and the US dollar strengthened

10Y SOVEREIGN YIELDS AND VOLATILITY (YIELDS: %, VOLATILITY: VIX INDEX)



- The ECB has abandoned negative rates; refi rates have reached 1.25% and are set to increase further ahead; a new asset-purchase program (TPI) will help to address fragmentation risks within the region.
- Most currencies have weakened against the dollar, reinforcing inflationary pressures and the risk of financial stress.
- Volatility, sovereign yields and risk premia have increased quickly on prospects of tighter monetary policy, war-related uncertainty and the recent financial stress in the UK.

A hawkish Fed has adjusted interest rates, so far, in the year to date by 300bp to 3.25% and has paved the way for extra tightening ahead.

A further deterioration of macroeconomic prospects: higher inflation, tighter monetary policy and weaker growth than previously expected

BBVA RESEARCH CENTRAL SCENARIO: MAIN ASSUMPTIONS AND IMPACTS

MONETARY TIGHTENING

Interest rates remain higher for longer as central banks remain committed to low inflation

COMMODITIES (EX-GAS)

Prices decline on decelerating global demand, but supply restrictions keep prices relatively high



SUPPLY BOTTLENECKS

Bottlenecks continue to ease gradually as the effects of ongoing shocks wane away



SHARP GROWTH SLOWDOWN

Global growth is forecast to ease sharply from 6.2% in 2021 to 3.2% (-0.2pp) in 2022 and 2.4% (-0.1pp) in 2023. Mild recessions in the Eurozone, due to gas disruptions, and in the U.S., due to interest rate hikes. Low growth, but no hard-landing in China.

INFLATION MODERATES SLOWLY

It remains above targets at least till 2024, but eases from 2023 as current shocks lose steam, monetary tightening reigns on expectations and no significant second-round effects emerge.

FINANCIAL VOLATILITY

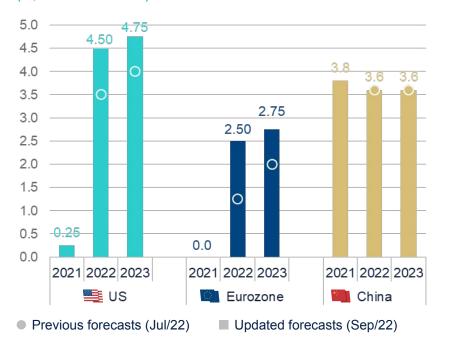
Strong dollar, high risk premia, capital outflows from EM.





Central banks will keep the focus on inflation despite increasing signs of growth weakening: interest rates will remain higher for longer

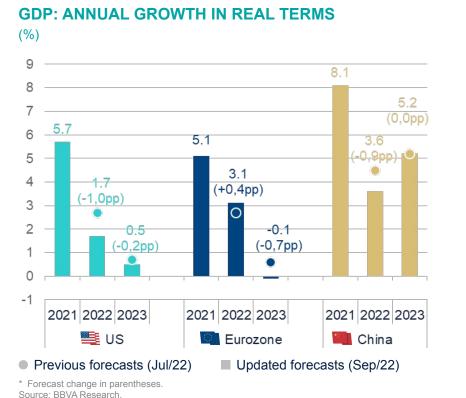
MONETARY POLICY INTEREST RATES^{*} (%, END OF PERIOD)



- The Fed is likely to raise rates to 4.75%, and to keep them at that contractive level till the end of 2023 in order to engineer a slowdown of the economy, and of labor markets in particular, for inflation to converge to 2%.
- The ECB is expected to hike refi rates to 2.75%, well above neutral levels, pressured by high inflation and a more aggressive Fed, and despite the bleak growth prospects.
- Fiscal policy will be more supportive in the EZ than in the US, mostly through NGEU funds and the suspension of fiscal rules until 2023.
- In China, policies are expected to continue exhibiting a moderately expansionary tone.

* In the case of the Eurozone, interest rates on refinancing operations. Source: BBVA Research based on Bloomberg data.

Global growth will ease significantly ahead on price pressures, rising interest rates, gas disruptions in Europe and idiosyncratic problems in China

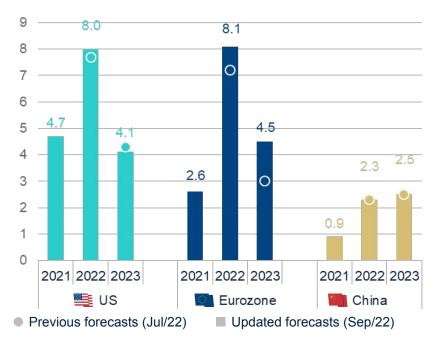


- In the US, growth is revised downwards on (surprising) GDP contractions over 1H22 and higher Fed rates; a recession coupled with a labor market easing is likely by mid-2023.
- In the EZ, positive incoming data supports an upward revision of 2022 growth, but a sharper easing ahead is expected on gas disruptions and higher rates; a recession is likely over the next few quarters.
- In China, 2022 growth revised down on the impact of new covid waves and real estate tensions; a recovery is expected in 2023.

Inflation will remain high (more than expected) and well above central bank targets, but is still forecast to trend downwards from 2023 onwards

INFLATION:CPI

(Y/Y %, PERIOD AVERAGE)



- Inflation forecasts are revised to the upside, in line with evidence of more widespread and more frequent price adjustments and, in the case of the Eurozone, with prospects of higher gas prices and a weaker Euro.
- Still, recent moderation signs (mainly in the US), reinforce the view that inflation will ease ahead as current shocks lose strength and monetary conditions continue to be tightened.
- While inflation's convergence to the target will take a relatively long time, expectations are forecast to remain broadly anchored.
- Growth deceleration is expected to reduce the room for relevant wage increases, making significant second-round effects unlikely.

Risks: a sharper slowdown in global growth, financial turmoil episodes, worsening of the military conflict and increased geopolitical tensions

MAIN SHORT-TERM RISKS TO THE WORLD ECONOMY

PERSISTENT INFLATION

Second-round effects, new shocks or policy mismanagement could further spur inflation, requiring higher interest rates

UKRAINE WAR AND GEOPOLITICS

A deterioration of the war and new geopolitical conflicts; significant gas shortages in Europe are among the main risks

HARD-LANDING IN CHINA

"Zero-covid" policy coupled with real estate tensions and other local problems could pave the way for weaker growth in China

SOCIAL TENSIONS AND POPULISM

Macro weakness, political polarization, among other reasons, could trigger social unrest and populist policies



SHARPER GROWTH DECELERATION

Global growth could decelerate faster and more significantly than expected, increasing the odds of a global recession



FINANCIAL TURMOIL

Higher policy rates and risk aversion could trigger financial crises, in particular in debt and EM markets



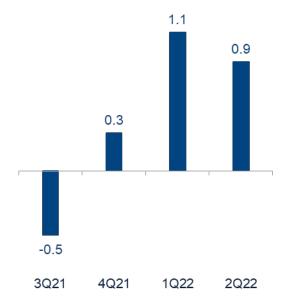


02 1H22 rebound fades; weakness ahead

Creating Opportunities

1H22 rebound fades; slowdown in consumption and industry in the face of high prices, higher interest rates, and weak US growth.



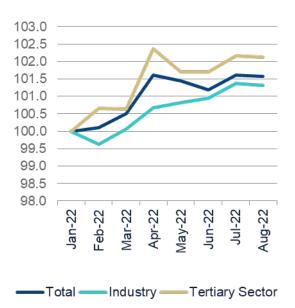


BBVA CONSUMPTION INDEX* (INDEX JAN/2022=100 AND M/M%)



Total - M/M% (rhs)

IGAE** (INDEX, JAN/2022=100)



*Cut-off date: September 30th, 2022. **The August figure corresponds to INEGI's IOAE estimate. Source: BBVA Research, INEGI.

ISM NEW ORDERS AND NON-OIL

EXPORTS (% Y/Y, 6-MONTH MOVING

50 40

30

20

10

-10

-20

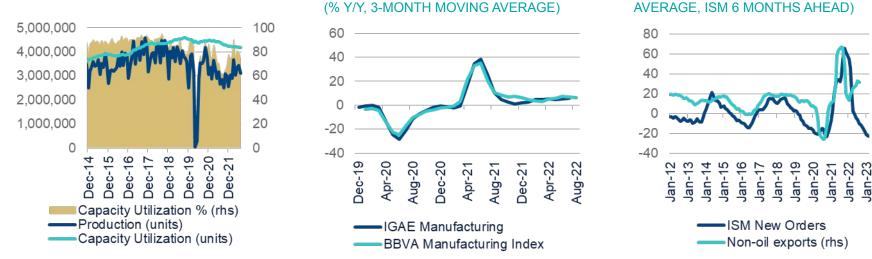
-30

Bottlenecks ease in the automotive sector but expectations for manufacturing are clouded by weakening demand

MANUFACTURING OUTPUT: INEGI

VS. BBVA INDEX*

LIGHT VEHICLE INDUSTRY (UNITS AND CAPACITY UTILIZATION %)

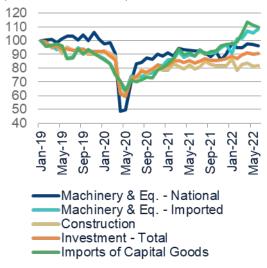


*The BBVA Multidimensional Manufacturing Indicator estimates Mexico's manufacturing output through a principal components analysis using information on US manufacturing output by economic subsector and the components of the US ISM manufacturing index. Source: BBVA Research, INEGI.

The further slowdown in the US manufacturing sector will ripple through its domestic counterpart.

Investment is 10% below its Jan/19 level; construction lags further behind

INEGI INVESTMENT INDICATOR AND CAPITAL GOODS IMPORTS (INDEX JAN/19=100)



INVESTMENT: PUBLIC AND PRIVATE

(% GDP)



CONSTRUCTION: COMPONENTS (INDEX, JAN/19=100)



Source: BBVA Research, INEGI.

US technical recession in 2023 to impact FDI; political uncertainty adds to investment weakness

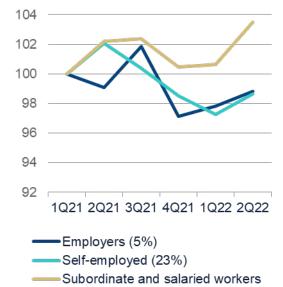
The informal sector is weighing on labor market conditions, contributing to the deterioration of consumption

NUMBER OF EMPLOYEES BY INCOME LEVEL

(INDEX 1Q21=100, INCOME CATEGORIES BY NUM, OF MIN, WAGES) 150 -141 6 140 130 120 110 108 4 100 90 80 70 60 1Q212Q213Q214Q211Q222Q22 Total -(1.2) (2.3) **—**(3.5) ---->5

HOURLY INCOME BY POSITION IN **OCCUPATION***

(MEDIAN, INDEX 1Q21=100)

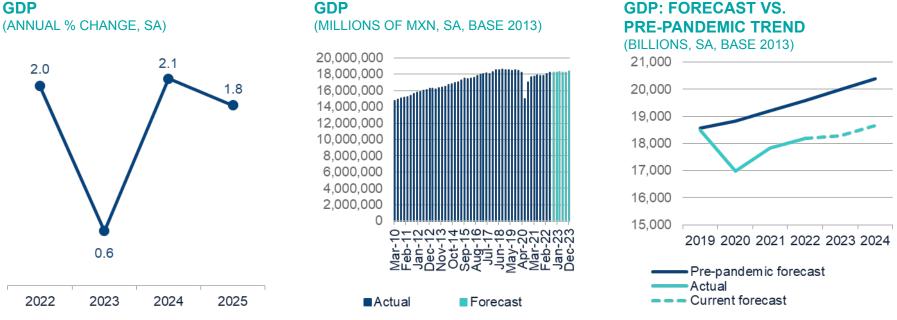


CRITICAL EMPLOYMENT CONDITIONS INDEX (LEVEL)



* The percentage of each category in the employed population is shown in parentheses in the key. The three main categories are shown. The remainder corresponds to self-employed workers in unskilled activities. and subordinated and paid workers with non-wage earnings. Source: BBVA Research, INEGI, ENOE,

We maintain our growth estimate at 2.0% for 2022; downward revision for 2023 to 0.6% (previously 1.6%)



Source: BBVA Research, INEGI.

Domestic demand slows after the 1H22 rebound, with no additional buffers; slower growth in US industry with impact on related domestic sectors. Political uncertainty related to the USMCA and the upcoming elections.

The labor market has shown recovery throughout the year, which has made it possible to maintain low levels of unemployment and underemployment

UNEMPLOYMENT RATE

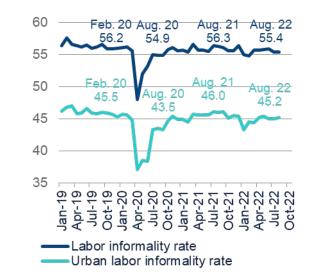
(% OF EAP, SA)



UNDEREMPLOYMENT RATE (% EMPLOYED, SA)



LABOR INFORMALITY RATE (% EMPLOYED, SA)



Labor informality has stabilized and averaged 55.4% at national level and 44.7% in urban areas, levels below the historical dating back to 2005. This strength in the labor market is also reflected in formal employment.

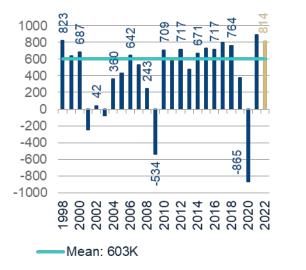
Source: BBVA Research, INEGI.

Formal employment growth above the historical average, with greater strength in permanent employment

JOBS AFFILIATED WITH THE IMSS (SEPTEMBER, THOUSANDS)



JOBS AFFILIATED WITH THE IMSS (ACUM. JAN-SEP, THOUSANDS)



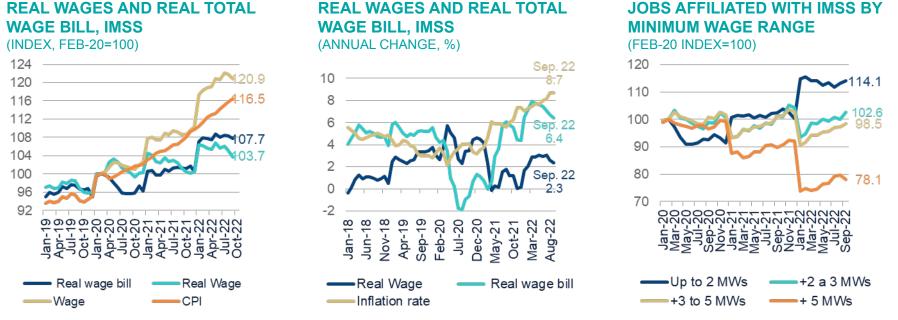
JOBS AFFILIATED WITH THE IMSS BY TYPE (INDEX, FEB-20=100)



Source: BBVA Research, IMSS.

A total of 172,000 new jobs were added in September (the second highest for a similar month), of which 68.5% are permanent. We expect employment to accelerate during October and November, but negative seasonal adjustment will prevail in December.

Despite high inflation, a resilient total wage bill driven by employment growth

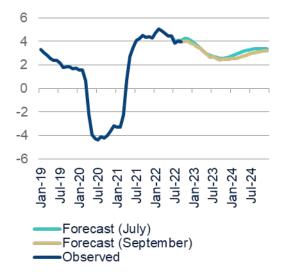


Source: BBVA Research, IMSS.

The resilience of the total wage bill is explained by the volume of employment created, but the slow recovery of jobs earning more than three times the minimum wage remains a concern.

We adjust our employment growth forecast for 2023 and anticipate lower job creation in 2023 given weaker GDP

JOBS AFFILIATED WITH THE IMSS (ANNUAL CHANGE, %)



JOBS AFFILIATED WITH THE IMSS (ANNUAL CHANGE EOP, THOUSANDS)



Forecast	2022	2023	2024	2025
Sep. 22	3.9	2.5	3.2	3.1
Jul. 22	4.1	2.7	3.4	3.2

JOBS AFFILIATED WITH THE IMSS (MILLIONS)

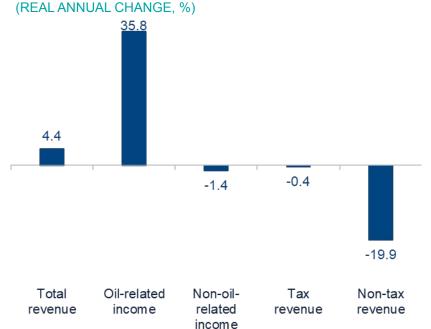


Source: BBVA Research, IMSS.

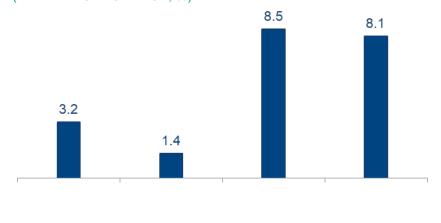
Despite expected positive employment gains, the gap concerning the pre-pandemic level trend will remain above 1 million jobs in the medium term.

Oil revenue boosted government revenue; the increase in public expenditure is mainly explained by non-discretionary spending

GOVERNMENT REVENUE AND MAIN COMPONENTS IN JANUARY-AUGUST 2022

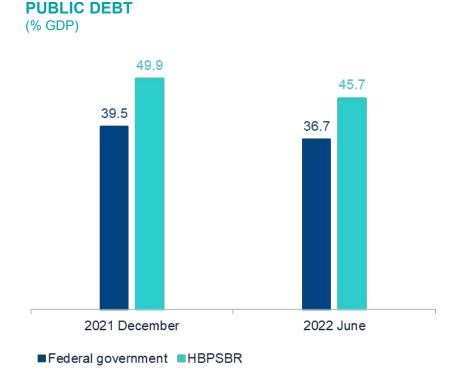


PUBLIC EXPENDITURE AND MAIN COMPONENTS IN JANUARY-AUGUST 2022 (REAL ANNUAL CHANGE, %)

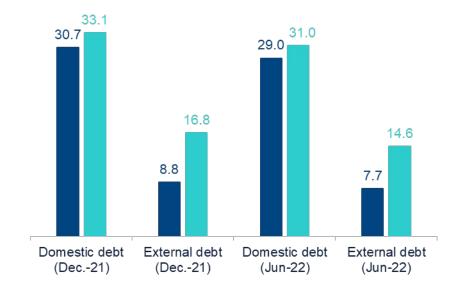


Total Discretionary Non- Financial spending spending discretionary cost spending

The internal and external components of the Historical Balance of PSBR (% of GDP) contributed 2.1 and 2.2 pp to the reduction of this ratio, respectively



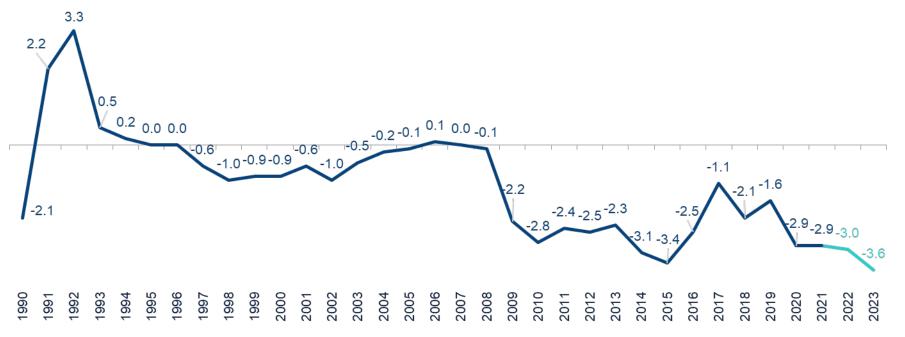
DOMESTIC AND EXTERNAL PUBLIC DEBT (% GDP)



Federal government HBPSBR

For next year we anticipate a public deficit level (% of GDP) that will be at its highest since 1990

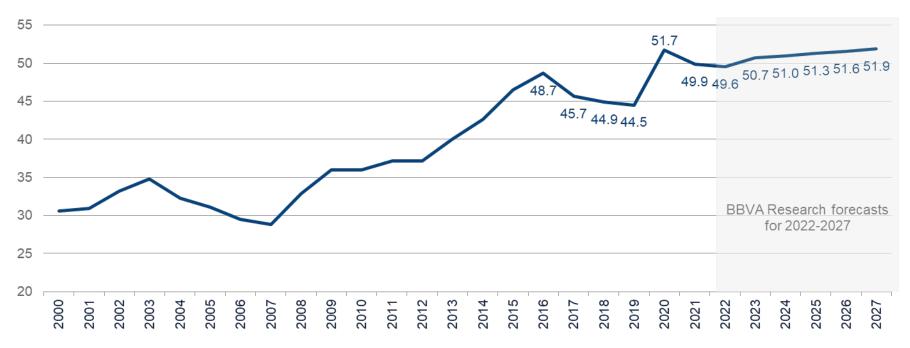




Source: BBVA Research / SHCP.

Public debt will increase moderately in the medium term to reach levels of around 51.9% of GDP by 2027

HISTORICAL BALANCE OF THE PUBLIC SECTOR BORROWING REQUIREMENTS (% GDP)



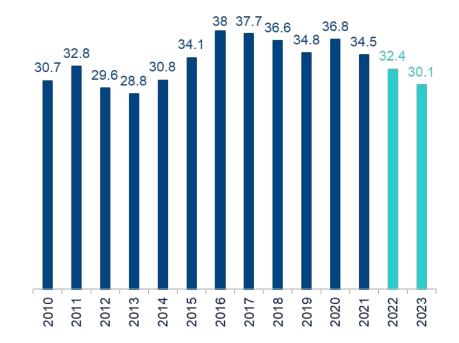
Source: BBVA Research, SHCP.

Higher interest rates increase financial costs; external public debt has an average maturity of 20 years and net external financing will be 8.6% of the total in 2023



FINANCIAL COST OF PUBLIC DEBT

FOREIGN PUBLIC DEBT (% OF TOTAL)



The government will have less room for maneuvering as discretionary spending goes down (% of total spending); a tax reform is needed to increase tax revenue



Source: BBVA Research, SHCP.

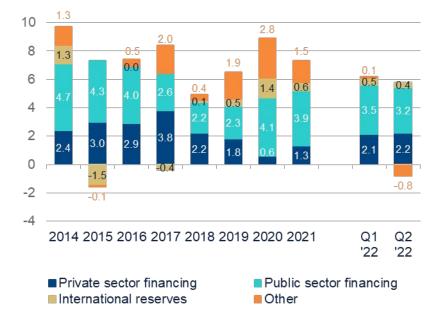
In 2Q22, domestic financing slowed, while foreign flows remained negative. The public sector continues to be the largest user of resources

FLOW OF SOURCES OF THE ECONOMY'S FINANCIAL RESOURCES (ANNUAL FLOWS IN % OF GDP)



Internal sources External sources

USE OF THE ECONOMY'S FINANCIAL RESOURCES (ANNUAL FLOWS IN % OF GDP)



Source: BBVA Research based on Banxico data. * Other includes capital and income accounts and other assets and liabilities of commercial and development banks, non-bank financial intermediaries, Infonavit and Banxico, as well as changes in the valuation of public instruments.

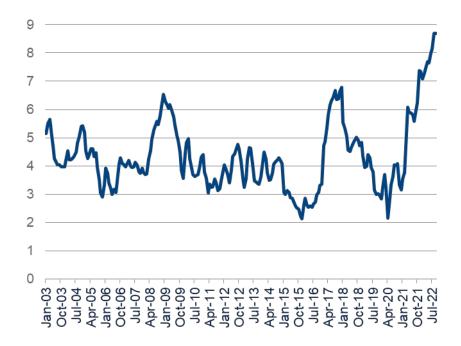
Source: BBVA Research based on Banxico data.



()3 We now anticipate that the monetary policy rate will reach 10.75%, but we also expect it to decline at a faster pace starting in 3Q23

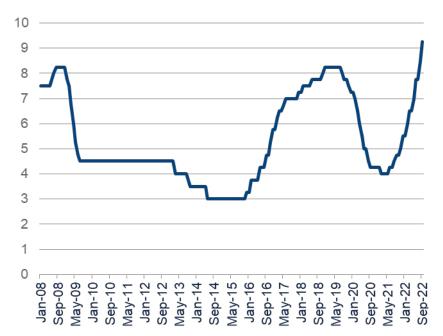
Banxico has taken the monetary policy rate rate to unprecedented levels since it was adopted as the main tool for monetary policy

HEADLINE INFLATION (YOY % CHANGE)



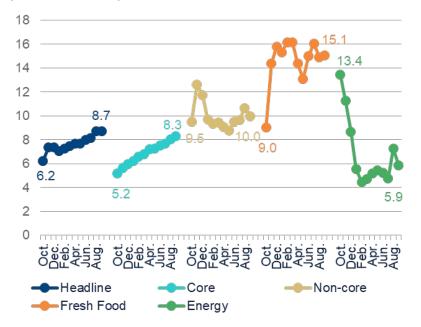
MONETARY RATE



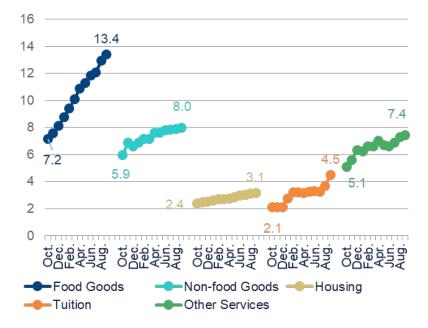


Broad-based inflation pressures, core inflation upward trend turbocharged by the core foods prices surge

BREAKDOWN OF HEADLINE INFLATION (YOY % CHANGE)

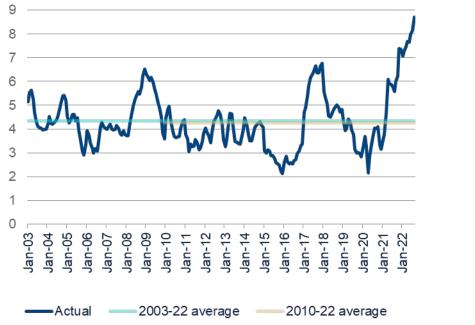


BREAKDOWN OF CORE INFLATION (YOY % CHANGE)



Medium- and long-term inflation expectations have recently edged down, but remain at levels that are uncomfortably high for Banxico

HEADLINE INFLATION (YOY % CHANGE)



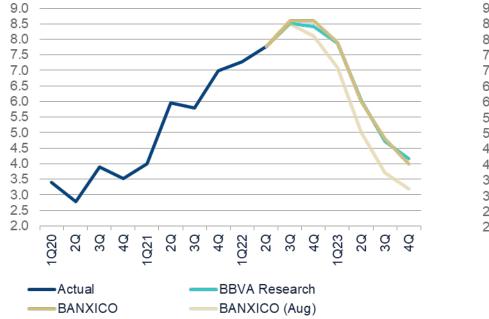
MEDIUM- AND LONG-TERM INFLATION EXPECTATIONS (YOY % CHANGE)



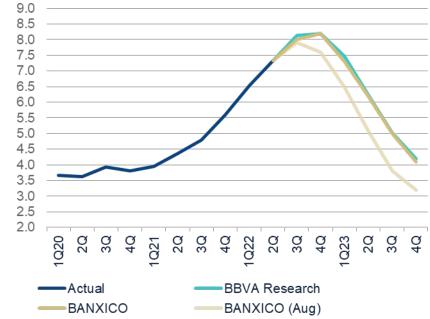
Source: BBVA Research, BANXICO.

We expect inflation to decelerate markedly in 2023 but to remain above 4.0%; Banxico adjusted its projected paths and now mimic ours

HEADLINE INFLATION FORECASTS (YOY% CHANGE, QUARTERLY AVERAGE)



CORE INFLATION FORECASTS (YOY% CHANGE, QUARTERLY AVERAGE)

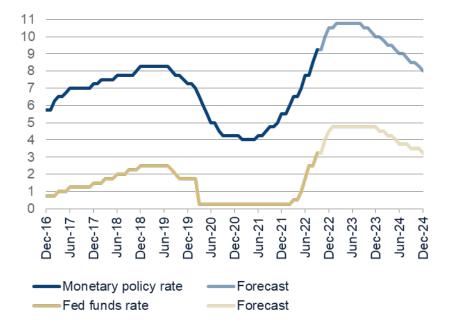


Banxico will raise the monetary policy rate higher than previously expected (up to 10.75%) due to inflationary pressures and a more restrictive US cycle

MONETARY POLICY RATE OUTLOOK: BBVA RESEARCH VS MARKET AND CONSENSUS EXPECTATIONS (%)



PROSPECTS FOR THE MONETARY POLICY RATE IN MEXICO AND THE US (%)



Latest available data: 11 Oct for market expectations and 5 Oct for consensus expectations (latest available Banamex Survey).

Source: BBVA Research, Encuestas de Banamex, Bloomberg.

Banxico will maintain a very restrictive stance for a long period, but the rate cut cycle from 3Q23 onwards is likely to be faster than previously expected

MONETARY POLICY RATE & DEV. OF THE CORE INFLATION EXPECTATIONS VS. TARGET* (% AND PP, BASED ON 12M INF EXP)



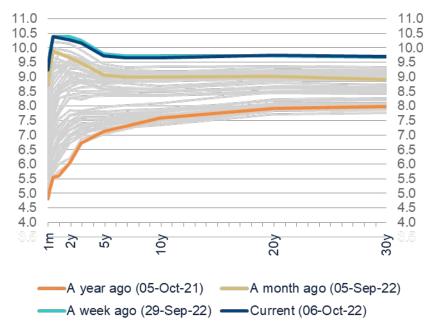
RELATIVE MONETARY STANCE: MONETARY POLICY RATE AND FEDERAL FUNDS RATE (PP)



Interest rate spread

The yield curve continues to shift upward as the end of Banxico's monetary tightening cycle approaches

SOVEREIGN YIELD CURVE (%)



MEXICO AND US 10-YEAR YIELDS

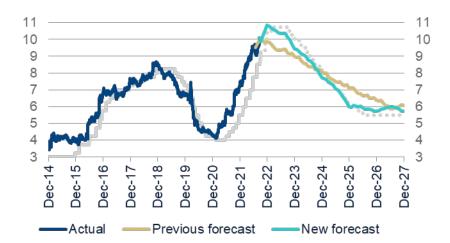
(%)



The gray lines show the weekly yield curves for the last 12 months. Source: BBVA Research based on Bloomberg data.

We now expect the Mexico 10-year bond (M10) yield to peak at 10.4% by the middle of next year

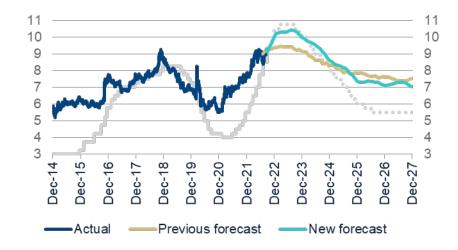
MEXICO 2-YEAR BOND YIELD (%)



Mexico 2-year bond	22	23	24	25	26	27
Current forecast	10.9	9.4	7.7	6.0	5.7	5.7
Previous forecast	9.9	9.0	8.0	7.1	6.4	6.1

Source: BBVA Research with data from Bloomberg and Haver Analytics.

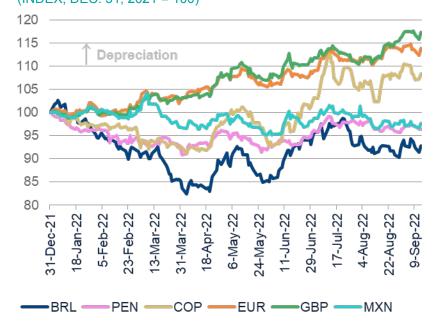
MEXICO 10-YEAR BOND YIELD (%)



Mexico 2-year bond	22	23	24	25	26	27
Current forecast	10.0	10.0	8.6	7.4	7.1	7.1
Previous forecast	9.4	9.2	8.3	7.8	7.6	7.5

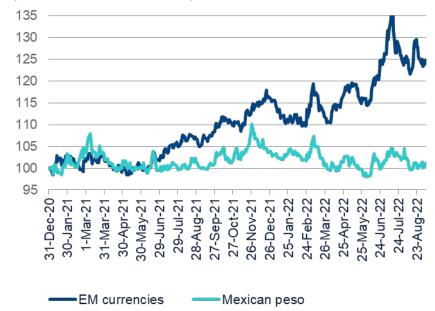
Strong peso due to wide interest rate differential, strong fiscal position, low current account deficit and inflows of FDI and remittances

PERFORMANCE OF SELECTED CURRENCIES IN EMERGING AND DEVELOPED ECONOMIES (INDEX, DEC. 31, 2021 = 100)



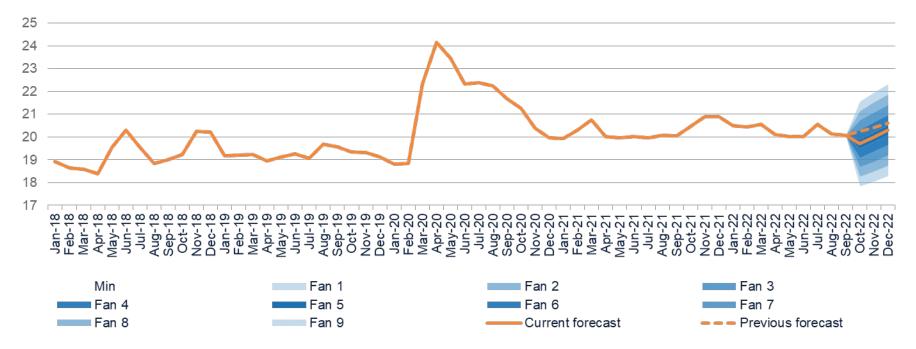
PERFORMANCE OF THE PESO COMPARED TO THE MAIN EMERGING CURRENCIES¹

(INDEX, DEC. 31, 2020 = 100)



1: Based on a re-weighting of the JP Morgan Emerging Market Currency Index after removing the MXN. Source: BBVA Research, Bloomberg.

Wide rate spreads continue to allow the peso to remain relatively strong; we anticipate 20.3 and 20.5 ppd at the end of 2022 and 2023, respectively





04

Key points and forecast summary



Key points

Growth estimat We revised down our growth estimate for 2023 to 0.6% (1.6% previously), given the deterioration of domestic demand in an environment of high inflation, higher interest rates and slower growth in the US.

Private consumption has slowed since May, more intensely in August, according to figures from the BBVA Research Big Data Consumption Indicator.

Investment is at 10% below its January 2019 level, with global value chains driving the resilience of the machinery and equipment segment, and construction showing the largest lag.

Bottlenecks in the automotive sector are fading out, while industries such as processed food face difficulties in the wake of the war in Ukraine.

The informal sector contributes to the deterioration of labor conditions; the number of employees reporting an hourly income below minimum wage has risen substantially since 4Q21.

We adjust our employment forecast downward, as we anticipate lower employment growth compared to our previous forecast. The total wage bill has remained resilient despite the dynamics of inflation; however, next year it will show less dynamism given lower expected job creation.

Key points



Inflation and monetary policy Banxico's hiking cycle will end when the Fed's cycle ends, as Banxico will avoid decoupling in the short term. Thus, we now anticipate that the cycle will peak at a level of 10.75%. While the central bank will maintain a tightening stance throughout 2023, we anticipate the start of a downward cycle in 3Q23 and believe it will be faster than previously anticipated.

- Average inflation in Q4 will be similar to that of Q3, which implies a turning point toward the end of the year. We expect a pronounced slowdown in inflation during 2023, but anticipate that by year-end it will only be able to fall to levels around the upper limit of Banxico's target range of variability (i.e., 4.0%).
- We believe that with real ex-post and ex-ante rates at around 5.75% and 7.00%, respectively in 3Q23, Banxico will initiate a downward cycle in 3Q23 to avoid an excessively restrictive monetary stance in a more benign context of inflation (with a gradual convergence to target) and economic weakness.



Wide interest rate spreads continue to allow the peso to remain relatively strong; we forecast an exchange rate of 20.3 and 20.5 ppd at the end of 2022 and 2023, respectively.

Forecast summary

		2020	2021	2022	2023	2024
GDP (Annual chg. %)	new	-8.3	5.0	2.0	0.6	1.8
	previous			2.0	1.6	1.8
Employment (%, at close)	new	-3.2	4.3	3.9	2.5	3.2
	previous			4.1	2.7	3.4
Inflation (%, at close)	new	3.2	7.4	8.5	4.0	3.7
	previous			7.7	4.1	3.6
Monetary policy rate (%, at close)	new	4.25	5.50	10.50	10.00	8.00
	previous			9.50	9.00	8.00
Exchange rate (ppd, at close)	new	20.0	20.9	20.3	20.5	20.7
	previous			20.6	20.8	21.0
M10 (%, at close)	new	5.5	7.6	10.0	10.0	8.6
	previous			9.4	9.2	8.3
Fiscal balance (% GDP)	new	-2.9	-2.9	-3.0	-3.6	-2.5
	previous			-3.1	-2.8	-2.4
Current account (% GDP)	new	2.3	-0.4	-0.8	-0.8	-1.5
	previous			-0.8	-0.8	-1.5



Mexico Economic Outlook

October 2022

