



BANCO DE MÉXICO®

## Minutes number 89

**Meeting of Banco de México's Governing Board on the occasion of  
the monetary policy decision announced on December 16, 2021**

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## 1. PLACE, DATE AND PARTICIPANTS

**1.1. Place:** Meeting held by virtual means.

**1.2. Date of Governing Board meeting:** December 15, 2021.

### 1.3. Participants:

Alejandro Díaz de León, Governor.  
Galia Borja, Deputy Governor.  
Irene Espinosa, Deputy Governor.  
Gerardo Esquivel, Deputy Governor.  
Jonathan Heath, Deputy Governor.  
Rogelio Eduardo Ramírez, Secretary of Finance and Public Credit.  
Gabriel Yorio, Undersecretary of Finance and Public Credit.  
Elías Villanueva, Secretary of the Governing Board.

Prior to this meeting, preliminary work by Banco de México's staff analyzing the economic and financial environment as well as the developments in inflation and the determinants and outlook for inflation, was conducted and presented to the Governing Board (see Annex).

## 2. ANALYSIS AND RATIONALE BEHIND THE GOVERNING BOARD'S VOTING

### *International environment*

**The majority mentioned that available information shows that world economic growth has increased moderately during the fourth quarter, heterogeneously across countries depending on the evolution of the pandemic and the actions implemented by their public health, monetary and fiscal authorities. In particular, the new variant of the virus and the adoption of mobility restrictions, mainly in Europe, were highlighted. Some members pointed out that supply constraints continue to affect industrial production and noted that global employment has not been able to return to its pre-pandemic levels. One member stated that this is due to an incomplete recovery in demand. Some members indicated that the weakness in employment is also due to individuals'**

labor supply decisions in light of health risks. **One** member stated that the pandemic led to the early exit of older generations from the labor force and a lower participation of women and young people. He/she added that there has been a change in relative wages, associated to the risks of contagion, and to wage-related pressures, which has worsened as a result of the recent inflation dynamics. **Some** members mentioned that forecasts for 2022 remained stable, although they continue to be subject to a high degree of uncertainty. **One** member highlighted that the evolution of the pandemic and its new variants continues being the greatest risk factor for the global economic recovery.

**Another** member pointed out the effects that the pandemic has had on the global economy: i) the shutdown of various sectors of productive activity; ii) the adoption of substantial spending stimuli in advanced economies; iii) a reallocation of spending; and iv) profound effects on the labor market. He/she stated that this series of unprecedented shocks has led to considerable forecast errors for economic activity and inflation. He/she highlighted that in 2021 fiscal support and transfers to households increased considerably in the United States, generating an increase in the demand for consumer durables worldwide, thus exerting pressure on their prices and generating bottlenecks. He/she also highlighted the rigidity and lack of resilience in supply chains.

**All members mentioned that world inflation continued increasing due to pressures originated by bottlenecks in production, the reallocation of spending towards merchandise, the elevated food and energy prices, and the recovery of some services. In the case of emerging economies, most members pointed out the impact of exchange rate depreciation on price increases. One** member stated that the increase in inflationary pressures has coincided with the decline in the number of infections and the subsequent increase in mobility and spending. **Some** stressed that producer prices have been subject to significant pressures. **One** member pointed out that consumer durables have also been subject to pressures, registering an annual change of 14.9% in November 2021 in the United States, as compared to February of the previous year, when it registered -0.6%. He/she stated that inflation has been heterogeneous in advanced economies, highlighting the case of the United States, where it has been associated with its greater spending support programs. He/she detailed that, in this country, the annual variation of the personal consumption expenditure price deflator in October and that of the consumer price index in

November, registered their highest values in 31 and 39 years, respectively. **Some** members noted, nevertheless, that the latest data related to the manufacturing sector's purchasing managers' index, such as outstanding orders, delivery times, and sea freight rates, have shown an improvement at the margin.

**Some** members pointed out that inflation dynamics have affected inflation expectations in the main advanced economies. **One** member said that inflationary pressures could last longer than expected, given that headline and core inflation have been above their central banks' targets for several consecutive months. He/she stated that in the main advanced economies, expectations for the next 12 months have reached historic highs, although long-term expectations have remained stable. **Another** member stated that in the United States, short- and medium-term inflation expectations of businessmen, consumers, and those implicit in fixed-income markets have increased. **One** member mentioned that inflation in that country will remain high during 2022. He/she added that upward pressures will continue in emerging economies as well. **Another** member pointed out that the forecasts of central banks and international organizations anticipate a significant decline in inflation during the second half of 2022. He/she pointed out that commodity prices decreased in the last month, particularly those of basic energy commodities. He/she stated that as the sanitary problem continues to be resolved and uncertainty lessens, supply restrictions and price pressures will begin to ease.

**One** member considered that this environment poses considerable challenges for inflation in the face of: i) disruptions and lack of flexibility in the supply of multiple products; ii) the concentration of spending on consumption of goods; iii) transfers to households; and iv) the increase in financial savings that may sustain high spending patterns going forward. He/she added that this makes it more complex to anticipate the duration of pressures on global inflation. He/she expressed that the risks for price formation at a global level, and their possible influence on our country, are considerable and rising. He/she highlighted that Mexico has one of the largest gaps in headline and core inflation among emerging economies.

**All members stated that the Federal Reserve announced an acceleration of the removal of monetary stimulus, doubling the pace of reduction of its net asset purchases. One** member mentioned that this purchase program is expected to

end in March 2022. **All members noted that FOMC's projections for the federal funds rate point to larger increases than previously anticipated. They noted that they now incorporate up to three increases by 2022. Some** members noted the Fed's change in discourse towards a more restrictive policy stance, as it no longer considers the increase in inflation to be a transitory phenomenon. **One** member added that the Fed pointed out that supply-related issues and the reopening of the economy have exerted pressure on prices. **Another** member mentioned that it is still expected that a negative real interest rate will be maintained until 2024. He/she noted that the Fed's gradual and clear communication has avoided abrupt fluctuations in financial markets, and that it has been careful not to withdraw its monetary stimulus prematurely.

**The majority agreed that at a global level central banks are expected to adopt progressively less accommodative policy stances. One** member added that while most central banks maintain an accommodative stance, their narrative has started to become more restrictive. **Another** member mentioned that a large number of emerging economies have accelerated their interest rate raising cycles. **One** member detailed, however, that the vast majority continue providing significant stimulus despite headline inflation being above their targets. He/she highlighted the cases of Chile, Colombia, Peru, Hungary, and Poland. **Another** member reflected upon the fact that, while advanced economies, which for many years have had inflation and its expectations below their targets, have more room for maneuver, in emerging economies, particularly in Mexico, price formation can be more easily contaminated. He/she emphasized that emerging economies face two considerable challenges: i) the significant inflationary pressures to which they have been subject for months; and ii) the expectation of tighter global financial conditions in the near future. He/she pointed out that for economies that are already facing significant inflationary pressures, deferring their monetary policy response to synchronize it with that of the Federal Reserve would imply the risk of contaminating inflation expectations, eroding the credibility of monetary authorities, and would require greater adjustments in the future. He/she added that, on the contrary, inducing more restrictive monetary conditions in a timely manner would avoid a greater impact on price formation and would favor a more orderly adjustment in the economy as a whole, which would lead to better conditions to face episodes of

volatility. He/she stated that this reflection applies to the case of the Mexican economy.

**The majority mentioned that international financial markets exhibited greater volatility, associated with the new variant of the virus, the expectation of an earlier-than-anticipated normalization of monetary policy by the main central banks, and the increase in world inflation. They highlighted the increase in interest rates of short-term government bonds, particularly in the United States, which contributed to a generalized appreciation of the US dollar. Some members highlighted the increase in risk aversion in equity markets. One member stated that stock markets in advanced economies fluctuated markedly, although he/she pointed out that in the United States, gains were reported given the Federal Reserve's decision.**

**Some members mentioned that, in this context, financial markets of emerging economies exhibited a negative bias. One member noted that stock markets fell, interest rates increased, and currencies depreciated against the US dollar, although these last ones registered a favorable behavior after the Federal Reserve's announcement. Another member stated that capital flows channeled to fixed-income instruments registered outflows, while those destined to equity showed positive movements. The majority mentioned that looking ahead, global financial conditions are expected to tighten in light of the expected earlier withdrawal of monetary stimulus by the Federal Reserve. One member stated that this will be a risk factor for capital flows in emerging economies.**

### *Economic activity in Mexico*

**The majority mentioned that information up to October shows a recovery of economic activity, after the contraction observed during the third quarter. However, they noted that the recovery remains fragile, incomplete and heterogeneous across sectors. One member noted that activity will close the year below pre-pandemic levels. Another member noted that the pandemic remains the main risk to economic activity. He/she added that the new variant of the virus could represent a setback to the recovery.**

**On the demand side, most members highlighted that non-automotive manufacturing exports remained at high levels in October. However, they mentioned that disruptions in supply chains persist and pointed out that automotive manufacturing exports registered another decline in October. One member mentioned that in**

that month, said exports were 9.04% lower than in February 2020. **Another member noted that after having driven the economic recovery, exports have lost momentum. The majority underlined that consumption showed a certain recovery in September, although some members pointed out that its recovery remains weak. Some members stated that consumption could continue recovering during the fourth quarter and one indicated that it would be supported by the increase in the wage bill and in remittances. The majority mentioned that investment continued showing a lack of dynamism as it registered a contraction in September. One member highlighted that the fall in investment, both in construction and in machinery and equipment, places it as one of the most lagging variables, which shows the need to foster conditions conducive to investing. Another member pointed out that it remains stagnant since March and 16% below its highest level reached in 2018. He/she stated that timely indicators suggest that its lack of dynamism will continue during the fourth quarter.**

On the supply side, **some members mentioned that industrial production improved in October, mainly driven by manufacturing, particularly of transport equipment. One member highlighted that construction contracted once again in October. Looking ahead, another member pointed out that a rebound in industrial production is anticipated, especially in non-automotive manufacturing, driven by external demand. One member mentioned that the performance of services remains heterogeneous across subsectors. He/she indicated that, within business-support services, those related to employment fell sharply in September, as a reflection of the labor outsourcing reform. He/she mentioned that the services sector is expected to slightly rebound in October.**

**The majority noted that the labor market continues recovering, although it remains affected relative to pre-pandemic levels. One member highlighted that in October the levels of labor participation and employment improved. Another member noted the recovery in formal employment, which has already exceeded the level observed in February 2020. He/she added that separations and hires caused by the new labor outsourcing reform appear to have compensated each other, thus maintaining employment at stable levels. One member pointed out that, although the level of alternative unemployment declined slightly in October, it remains above pre-pandemic levels. Another member pointed out that both national and urban unemployment rates are above pre-pandemic**

levels, and that the underemployment rate is above 11%. **Some** members underlined that the recovery in the labor market remains uneven in terms of gender. **One** member added that inequality is also observed by age groups. **Most members noted that the recent increase in the minimum wage could exert pressures on labor costs.** **One** member stated that the increase in the unit labor cost indicates an upward trend, as a result of an increase in mean real wages and a decline in productivity.

**All members agreed that slack conditions have persisted. Most members pointed out that significant differences are still observed across sectors.** **One** member noted that output gap estimations indicate that slack conditions remained wide during the fourth quarter. **Another** member mentioned that the deviation of economic activity from the trend that would have been observed in the absence of the pandemic is of around 10%. **One** member considered that slack conditions remain sensitive to both direct and indirect factors associated with the pandemic, and, to a lesser extent, to monetary conditions. **Some** members highlighted the problems to measure slack conditions in the economy. **One** member underlined that underestimating the amount of slack could lead to equivocal decisions, as it could contribute to overestimate the magnitude of demand-related inflationary pressures and to underestimate the costs associated with a less accommodative policy stance. **Another** member warned that the negative output gap is probably being overestimated in view of a lower potential GDP, given that supercore inflation has continued following an upward trend despite the ample slack conditions.

### *Inflation in Mexico*

**All members stated that global and domestic inflationary pressures continue affecting annual headline and core inflation. Most members mentioned that in November annual headline inflation reached its highest level since January 2001. They highlighted that the prices of more than half of the generic items that comprise the CPI are growing at rates above 5%. One** member noted that the monthly inflation rate exhibited an increase unseen for the month of November since 1998. **Another** member highlighted that in November it once again exceeded the projections of both private sector economic analysts and Banco de México. He/she considered that the fact that the annual growth rates of multiple components are above the inflation target reflect not only problems associated with products affected by bottlenecks, but rather a

generalized problem. **One** member pointed out that the inflation rates of all CPI components show clear upward trends, which suggests that the peak has not been reached. **Some** members underlined that different inflation indicators, such as the trimmed mean indicator and supercore inflation point to a steady upward trend. **One** member added that the trimmed mean indicator of headline inflation was 5.75%, its highest level in a series calculated starting in 2003.

**Most members stated that, due to the deep economic integration with the United States, the higher levels of inflation in that country have contributed to the rebound in inflation in Mexico.** **One** member highlighted that in the United States the producer price index reached 9.6%, while in Mexico it registered an annual change of 9.9% in November. **Another** member underlined that, considering the high levels of inflation that will persist in the United States in 2022, there could be more imported inflation. **Some** members pointed out that headline inflation is currently influenced by an adverse base effect, as a result of an extension in the number of days that comprise the “*Buen Fin*” discount sales campaign during 2020. **One** member mentioned that, considering the aforementioned, in November last year, annualized monthly inflation was exceptionally low and close to zero, and core inflation registered deflation. He/she added that, even if in November this year monthly inflation would have been in line with its historic average, the annual rate would have exceeded 7% in either case, given that 67% of the increase in annual inflation between October and November is attributed to the base effect. He/she pointed out that the rest of the increase in inflation was due to additional pressures. However, these occurred in a context of higher mobility and spending, due to an improvement in the indicators of contagion, and thus there is no reason for the sudden increase in demand to repeat itself.

**All members mentioned that core inflation faced pressures in merchandise prices and a rebound in services prices. Some** members highlighted that the core component accumulated 12 consecutive monthly increases in November. **Some** members noted that in said month annual core inflation was the highest in 20 years. **One** member pointed out that it has been above 4% since March, and that supercore inflation is increasingly close to surpassing it. **Another** member considered core inflation dynamics a cause of concern, as, after having shown a resistance to decline until 2019, it has been clearly following an upward trend, indicating that there has been a pass-through of second-round effects to the

rest of the economy. **One** member pointed out that the increase of annual core inflation in October and November is largely explained by the base effect related to greater number of days comprising last year's "Buen Fin" sales campaign. **Most members mentioned that merchandise prices have reacted to the increase in international prices and to disruptions in productive processes.** **Some** members mentioned that pressures have continued to intensify both on food and non-food merchandise. **One** member highlighted that the above occurred despite the "Buen Fin" sales. **Another** member pointed out that over 70% of merchandise components registered annual changes above 5%. He/she added that the increase in merchandise prices is higher than that registered in 2009, when the peso depreciation exceeded 35% at some point. **Some** members pointed out that the variation in services prices continues to rebound, reaching levels close to 4%, pressured by components different from education and housing. **One** member mentioned that, despite the recent increase in annual inflation, the biennial annualized inflation of services remains around 3%, which indicates that pressures on this component remain limited. **Most members stated that pressures on non-core inflation increased. They highlighted the annual rates of change of agricultural and livestock product prices, and energy prices.** **One** member added that government-authorized prices are accumulating cost pressures that could cause an increase in inflation next year. **Another** member stated that non-core inflation has almost reached its highest level in twenty years.

**All members mentioned that headline and core inflation expectations for 2021, 2022 and for the next 12 months increased again, along with medium-term expectations, while long-term expectations have remained stable at levels above the target. Most members pointed out that expectations corresponding to the end of 2022 are already above the upper limit of the target range.** **One** member mentioned that more than half of the private sector economic analysts interviewed believe that inflation will be above 4% in the next 12 months and in 2022, and that the probability that it will be above 5% has started to increase. **Another** member stated that the deterioration in short-term expectations is estimated to extend until 2023, given that monthly inflation expectations have consistently been below observed figures. However, **one** member mentioned that the National Survey on Consumer Confidence (ENCO, for its acronym in Spanish) shows a more favorable outlook for expectations for the next 12 months, given that these do not show a

significant upward trend, have not reached their worst level since the beginning of the pandemic, and are far below the levels reached during the 2017 inflationary episode. **Another** member noted that analysts do not expect inflation to decrease as fast as estimated by the central bank and that there is a significant discrepancy regarding the rate of decrease of the core component. He/she pointed out that the increase in medium-term headline inflation expectations is worrying, as these are at 3.68% despite the fact that the ones corresponding to the following two years are at 3.5%. He/she noted that this indicates the presence of doubts regarding the convergence of inflation to its target in the medium term. **One** member stated that, if the deterioration in medium-term expectations is not addressed, these could contaminate long-term expectations. **Some** members highlighted that inflation expectations drawn from market instruments remain high. **One** member pointed out that they are above those drawn from surveys. **Another** member added that said expectations have continued following an upward trend, particularly those of 1- to 5-year expectations. **One** member mentioned that the average of 6- to 10-year expectations is at 3% and that they show a lower variability than short-term ones. **Another** member stated that inflationary risk premia decreased during last month. **One** member considered the high levels of the breakeven inflation rate implicit in medium- and long-term bonds as worrisome. **Some** members warned that de-anchoring of inflation expectations is one of the most important challenges faced by monetary policy.

**All members stated that the forecasts for headline and core inflation were once again revised upwards, especially those for 2022. The majority of members mentioned that it is expected that, in its annual measurement, they will decrease to a larger extent after one year and that they will converge to the 3% target by the end of the forecast horizon.** **Some** members noted that the upward revisions reflect an exchange rate depreciation and additional inflationary pressures. **One** member mentioned that the systematic revisions to the inflation forecast show how difficult it has been to determine the duration of bottlenecks, how long high transportation and freight costs will be maintained, and the unusual variations in commodities. **Some** members pointed out that the pressures originate from the core component. **One** member added the effects registered in non-core inflation and a higher-than-expected increase in minimum wages. He/she stated that upward revisions to forecasts have been made for over six months and that the most recent one was of

considerable magnitude. **Another** member noted that the core component shows a strong upward adjustment, especially for the first quarter of 2022, although it is expected to decline from the second quarter of that year. **One** member considered that supply chain disruptions and input shortages are likely to remain until mid-2022, and that their effects could be exacerbated by the new variant of the virus. He/she noted that it cannot be expected that an economic slowdown will contain the increase in prices. He/she added that the emergence of new shocks and a more adverse behavior of the non-core component could prevent the convergence to the target within the forecast horizon. **Another** member stated that providing the annualized seasonally adjusted quarterly inflation forecasts in each monetary policy decision will give the public greater elements for evaluating and monitoring the current inflationary environment, which will contribute to better price formation.

**Some** members mentioned that the phenomenon of readjustment in relative prices and the arguments about the transitory nature of inflationary pressures no longer seem appropriate to explain the current situation, since the increase in inflation has been persistent and widespread. **One** member highlighted that headline inflation and its components show an upward trend under different methodologies. He/she added that this phenomenon has begun to contaminate inflation expectations and that the prolonged duration of price increases is not only a reflection of bottlenecks, but also of global demand pressures. **Another** member noted that the debate on the transitory nature of the pressures has been left behind given the accumulation of inflationary shocks that will last for a longer period of time and whose effects will outlast the pandemic. He/she said that the high breakeven inflation rate implicit in medium- and long-term bonds reflects the fact that investors perceive inflationary pressures to be more permanent. **One** member noted that a large part of the inflationary shocks has been associated with the pandemic and that these have coincided with other shocks whose origins precede the pandemic. He/she added that the slow fading and uncertain duration of these shocks could lead to a scenario where high inflation synchronizes with new shocks that prevent the convergence of inflation and de-anchor expectations. **Another** member mentioned that long-term expectations drawn from market instruments are close to 3%, which is consistent with the perception that pressures are transitory. He/she stated that, although the shocks have been prolonged, it is important to remember that their origin was due to the change in consumption patterns

and supply restrictions that have generated an increase in the prices of goods at a global level; to the increase in international commodity prices; and to a reversion in the trend of prices of services and some goods, which means that their inflation levels will be high for some more months, without this implying a lack of control in the price formation process. He/she pointed out that the first two factors are affecting domestic prices despite the domestic slack conditions. He/she estimated that pressures will tend to fade insofar as the world economy continues evolving towards a more homogeneous recovery, with more control of the pandemic, which will favor the mitigation of the abovementioned supply restrictions. He/she noted that signals in this direction are already beginning to be observed, such as food and industrial inputs price stability and improvements in transportation indicators.

**Among upward risks to inflation, the majority of members highlighted external inflationary pressures. Some** members mentioned cost-related pressures, an exchange rate depreciation and energy price increases. **One** member added the persistence of core inflation at high levels. **Some** members mentioned the effects of the recent increase in the minimum wage. **One** member stated that this could be observed as a result of the growing proportion of workers with a salary close to this new reference value. **Another** member stated that this wage policy, together with the deterioration of labor productivity, is an internal factor that could reinforce inflationary pressures and trigger a wage-price spiral, eroding workers' purchasing power. **One** member added as a risk the pressures that are still being observed in the prices of commodities, food, and in producer prices, in addition to the volatility of the exchange rate. He/she highlighted that those core inflation items that are more susceptible to the exchange rate and energy prices could continue registering larger increases. Among downward risks, **another** member pointed out: i) the widening of the negative output gap, ii) social distancing measures, and iii) exchange rate appreciation. **The majority of members mentioned that the balance of risks with respect to the expected trajectory of inflation over the forecast horizon deteriorated further and remains biased to the upside.**

#### ***Macrofinancial environment***

**Most members noted that domestic financial markets have recently registered volatility. Some** members mentioned that this was due to both international and idiosyncratic factors. In this regard, **one** member pointed out the central bank's

succession process. He/she mentioned that risks to financial markets increased moderately. **The majority of members noted that the peso depreciated.** One member noted that this was a result of the Federal Reserve's less accommodative policy stance, the deterioration of the trade balance, and the greater local uncertainty. **Another** member explained that the national currency proved to be highly sensitive to fluctuations in global financial markets, especially in relation to other emerging market currencies. In this context, **some** members warned about the negative variation in the holdings of foreign investors in peso-denominated assets. **One** member added that, recently, long-term bond holdings, which had been relatively stable, have also been affected, despite the fact that Mexico keeps a better relative position as compared to other emerging market economies. **Another** member stated that foreign holdings of government securities as a percentage of the total amount outstanding reached their lowest level in a decade. He/she mentioned that capital flows are more sensitive to interest rate spreads. **Some** members mentioned that medium- and long-term interest rates registered upward adjustments, influenced by external conditions. They noted that the Mexican stock market performed negatively. **One** member mentioned that sovereign risk indicators increased and **another** member noted that there is an increase in risk aversion by the private sector, which is showing a preference for highly liquid assets over term instruments. He/she mentioned that net corporate debt placements in the domestic and foreign markets exhibited low dynamism, reflecting a cautious behavior.

**One** member mentioned that credit to firms and households remains deteriorated, and that financing to Small- and Medium-sized Enterprises (SMEs) is still more than 12% below pre-pandemic levels. **Another** member noted that the contraction in domestic credit is due to factors that are beyond the reach of monetary policy, such as business agents' reluctance to invest. **One** member noted that the corporate credit portfolio increased slightly in October, which contributed to mitigate its annual contraction. He/she added that monetary aggregates continue registering a slowdown compared to last year, although they remain at high levels.

### **Monetary policy**

**The Governing Board evaluated the magnitude and diversity of the shocks that have affected inflation and the factors that determine it, along with the risk of price formation becoming**

**contaminated, and the challenges posed by the ongoing tightening of monetary and financial global conditions. Based on these considerations, on this occasion, the majority of the Board decided to increase the target for the overnight interbank interest rate by 50 basis points to 5.50%. The Board highlighted that, with this action, the monetary policy stance adjusts to the trajectory required for inflation to converge to its target. For the next monetary policy decisions, the Board will monitor thoroughly the behavior of inflationary pressures as well as of all factors that have an incidence on the foreseen path for inflation and its expectations. The latter, in order to determine a policy rate that is consistent at all times with the trajectory needed to facilitate the orderly and sustained convergence of headline inflation to the 3% target within the time frame in which monetary policy operates as well as an adequate adjustment of the economy and financial markets.**

**One member** stated that in the absence of other factors contributing to dissipate pressures on financial markets and the exchange rate, a moderate tightening of the monetary policy stance is necessary. However, he/she warned that this should be done with caution, given that an overly restrictive policy stance could affect economic growth and, eventually, capital flows and the exchange rate, thereby going against the original objective of the aforementioned policy. He/she noted that several emerging market economies were able to provide greater monetary stimuli in 2020 and 2021 than Mexico despite having less strong macroeconomic fundamentals. He/she argued that, if a more gradual tightening policy had been chosen during 2021, or more stimulus measures provided during 2020, there would be more room today to pursue financial stability and maintain an accommodative policy, as other emerging economies have done. He/she mentioned that continuous interest rate increases in 2021 have led to a situation where it may be necessary to sacrifice this stance to achieve such stability. He/she added that moving too far ahead of the Fed's rate normalization process puts the economy at risk of falling into a trap of low growth and financial instability. He/she highlighted the importance of analyzing and communicating the nature of the current inflationary phenomenon, related to exogenous and global factors, which will begin to fade in the following months, and added that monetary policy can do very little to contain such pressures. He/she recalled that continuous rate increases have failed to prevent inflation in Mexico

from rising to levels not seen in two decades. He/she stated that, instead, interest rate increases do imply a high cost for economic activity in Mexico, affecting credit, investment, consumption, financial markets and public finances. He/she considered that the argument of controlling expectations seems insufficient to justify the continuous increases, since short-term expectations have continued to rise despite the interest rate increases. He/she pointed out that, on the one hand, not all measurements of medium-term expectations have been affected, while long-term expectations are stable, which is consistent with the transitory nature of inflationary pressures.

**Another member** pointed out that, in light of the Federal Reserve's accelerated removal of its asset purchases, the data regarding inflation, and the deterioration of its expectations, decisive actions are essential to promote the anchoring of inflation expectations. He/she pointed out that monetary policy reinforcing initiated this year was intended to act preemptively to avoid possible second-round effects, a de-anchoring of inflation expectations, and the contamination of price formation in Mexico, and that, with this objective, the interest rate had been raised by 100 basis points. He/she noted that, despite these increases, the ex-ante real interest rate has been adjusted by less than a quarter of a percentage point since June so far, given that inflation expectations have continued to deteriorate, which suggests that monetary policy has to be more decisive in view of the level of observed inflation and the uncertainty about the duration of the shocks that are being faced. He/she recalled that in an inflation forecast targeting regime, the monetary policy stance must insure that the projected inflation trajectory tends to converge to the target and that, if monetary policy adjustments are perceived as highly credible, then the shocks will not manage to divert inflation from its target in a sustained manner, expectations will remain anchored, and there will be gains in the efficiency of inflation convergence, and thus he/she considered that maintaining a framework of credible actions is currently an imperative task. He/she pointed out that his/her vote seeks to propitiate an adequate formation of inflation expectations and their firm anchoring. He/she stated that, given the macroeconomic fundamentals of the Mexican economy, the monetary strengthening should not require increases similar to those observed in other economies. However, he/she stated that, given the current uncertain environment, it is necessary to show an unequivocal commitment to Banco de México's constitutional mandate and to take on a more robust monetary policy approach.

**One member** noted that since the previous monetary policy decision, inflation has reached very high levels, with an outlook for longer external and internal pressures. He/she warned that the contamination of the price formation process demands a faster, firm and proactive pace of adjustment that considers all the factors, not mechanically, but rather upon adequate consideration. This, in order to maintain an inflation trajectory convergent to the target, which allows for the anchoring of expectations and the synchronization of local and global monetary cycles. He/she pointed out that a balance must be found between a weak economic recovery, persistent inflationary pressures, and the beginning of the new monetary tightening cycle by the Federal Reserve. He/she stated that Banco de México's autonomy, the impossibility of financing the government, and the good performance of public finances have prevented falling into a situation of fiscal dominance. However, he/she pointed out that the argument of not raising the rate because it would have an effect on public spending through an increase in financial costs, may introduce elements of fiscal dominance that would harm the proper functioning of monetary policy. He/she highlighted that it is essential to send clear signals of commitment to the primary mandate in order to preserve the institution's credibility. To this end, he/she was of the opinion that the inflation forecast targeting regime, which relies on the transmission channel of expectations, should be strengthened. He/she pointed out that considering that an increase in the monetary policy rate sends the opposite signal by increasing inflation expectations, is not consistent with the current monetary strategy and leads to the danger of inflation that is higher and difficult to control, similar to what Turkey is currently undergoing. He/she argued that a proactive attitude prevents a further deterioration of expectations. Therefore, he/she emphasized that the monetary policy response should be proportional to the inflationary outlook in order to preserve credibility and the long-term anchoring of expectations. He/she stated that, looking ahead, the Governing Board will continue to work together to find the best strategy to meet Banco de México's primary mandate in the current complex environment.

**Another member** considered that, in view of inflation risks and of the adjustments to forecasts, and in order to serve responsibly the central bank's primary mandate, it is essential to increase the pace of removal of monetary stimulus. He/she emphasized that, in the absence of a more decisive and forceful action that ratifies the commitment to the primary objective, there is a risk of losing credibility and of a de-anchoring of inflation expectations, which would

imply exceedingly costly measures for the population, especially for those of lower incomes. He/she argued that in view of the results obtained so far, the monetary policy strategy should be reconsidered. He/she noted that the inflationary outlook has deteriorated during the year to levels not seen in two decades, while the response has remained gradual, cautious and data-dependent. He/she stated that this was made feasible by a policy stance in June 2021 that allowed some margin to adopt a gradualist approach. He/she stated that the continuous upward revisions to the inflation forecasts show that the strategy has not been effective in containing inflation and its expectations. He/she pointed out that this strategy poses a risk for Banco de México's expectations and credibility, in the event that there is a perceived lack of consistency between the monetary policy statements and the actions taken. He/she noted that the monetary policy statement should emphasize the deterioration of the inflation outlook and the upward bias of the balance of risks. He/she added that the statement should endorse the commitment that the necessary actions will be taken to ensure the convergence of inflation to the target and the firm anchoring of expectations. He/she highlighted that inflationary pressures from abroad and due to supply shocks will remain even with the monetary policy stance adjustment; nevertheless, the latter mainly seeks to strengthen the expectations channel and limit demand-related pressures. He/she added that this adjustment places Banco de México strategically to face the tighter global financial conditions that will be observed during 2022, especially considering that the Mexican peso is strongly exposed to external shocks, and above all given the upcoming shift in advanced economies' monetary stimuli, mainly in the United States. He/she estimated that risks will be faced that must be addressed in a timely and decisive manner.

**One member** highlighted that although the monetary policy target rate has increased by 100 basis points throughout the year, with the increase of more than 80 basis points in inflation expectations for the next 12 months, the ex-ante real rate has remained practically unchanged between May and November. He/she argued that the monetary policy stance should consider: i) the magnitude and diversity of the shocks that have driven headline and core inflation to levels unseen in two decades; ii) the persistent uncertainty about global price dynamics; iii) the high risk of price formation and inflation expectations becoming contaminated; and iv) the challenges faced by a small emerging economy that is highly integrated to world financial markets, in view of the tightening of global monetary and financial conditions

that may imply capital outflows and exchange rate-related pressures. He/she added that these economies, which supplement their internal savings with external sources, must maintain sustainable public finances, a monetary policy focused on low and stable inflation, and a strong financial system. He/she stated that monetary policy should keep inflation expectations anchored, bring about orderly conditions in the exchange market, contain risk premia along the yield curve, and enable the convergence of headline inflation to its 3% target. He/she added that in the current context, the trajectory of monetary policy implies exceeding the upper limit of the interval for the neutral rate in real terms within the forecast horizon. He/she pointed out that the role of monetary policy is to maintain inflation around its target, ensuring that the high levels it has reached are transitory, and avoiding the contamination of price formation. He/she considered that tolerating high inflation levels, well above the target, without making the necessary adjustments, would affect price formation and lead to a significant deterioration of domestic financial markets. He/she underlined that this would represent hindering the convergence of inflation to its target and would erode the hard-earned credibility of Banco de México. He/she emphasized that in the current context, the central bank's commitment to its constitutional mandate of protecting the peso's purchasing power must be reinforced.

### 3. MONETARY POLICY DECISION

The Governing Board evaluated the magnitude and diversity of the shocks that have affected inflation and the factors that determine it, along with the risk of price formation becoming contaminated, and the challenges posed by the ongoing tightening of monetary and financial global conditions. Based on these considerations, on this occasion, the Board decided to increase the target for the overnight interbank interest rate by 50 basis points to 5.50%. With this action, the monetary policy stance adjusts to the trajectory required for inflation to converge to its 3% target within the forecast horizon.

For the next monetary policy decisions, the Board will monitor thoroughly the behavior of inflationary pressures as well as of all factors that have an incidence on the foreseen path for inflation and its expectations. The latter, in order to determine a policy rate that is consistent at all times with the trajectory needed to facilitate the orderly and sustained convergence of headline inflation to the 3% target within the time frame in which monetary

policy operates as well as an adequate adjustment of the economy and financial markets.

#### **4. VOTING**

Alejandro Díaz de León, Galia Borja, Irene Espinosa, and Jonathan Heath voted in favor of increasing the target for the overnight interbank interest rate by 50 basis points to 5.50%. Gerardo Esquivel voted in favor of increasing the target for the overnight interbank interest rate by 25 basis points to 5.25%.

#### **5. DISSENTING OPINIONS / VOTES**

**Vote.** Gerardo Esquivel

Expectations of a less accommodative policy stance by the Federal Reserve affected global financial conditions. This, along with idiosyncratic factors, has generated greater uncertainty and volatility in local markets. For this reason, I believe the monetary policy stance must be reinforced. This process

should be moderate, as an overly restrictive policy stance could have several negative implications. A short-term vision that reacts mechanically with rate increases before any shock should be avoided. Understanding and properly communicating the nature of the current inflationary phenomenon is crucial. This phenomenon is explained by exogenous factors that will begin to fade in subsequent months without the need for prematurely tightening local monetary conditions excessively. Continued rate increases did not prevent inflation from rising to levels unseen in two decades. The reason is that the origin of this episode is predominantly external. The argument of controlling expectations, which has justified said increases, has been disproved by the facts, since short-term expectations have not stopped rising despite such increases. In perspective, it should be considered that getting too far ahead of the Fed's normalization process puts the economy at risk of falling into a trap of low growth and financial instability.

## ANNEX

The information in this Annex was prepared for this meeting by the staff of Banco de México's Directorate General of Economic Research and Directorate General of Central Bank Operations. It does not necessarily reflect the considerations of the members of the Governing Board as to the monetary policy decision.

### A.1. External conditions

#### A.1.1. World economic activity

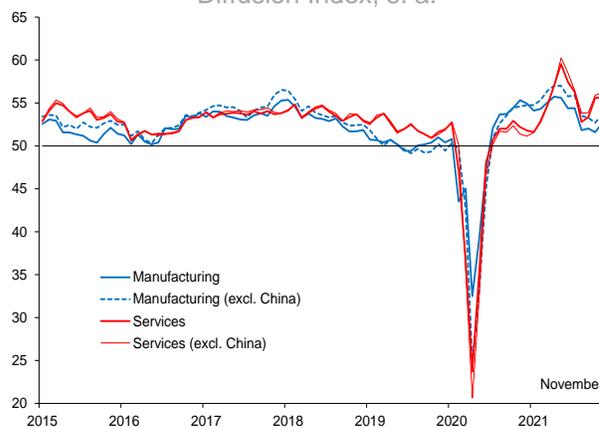
Available information shows that world economic growth has moderately increased during the fourth quarter of 2021, heterogeneously across countries, depending on the evolution of the pandemic and the actions taken by their public health, monetary, and fiscal authorities. World industrial production and international trade in goods have been affected by the persistence of bottlenecks in global supply chains. These bottlenecks have increased as a result of stimulus spending and the reallocation of spending towards merchandise consumption in the context of the pandemic. Prospective indices suggest a recovery in manufacturing and services activity (Chart 1), despite the resurgence of infections in several countries and the emergence of the Omicron variant of the SARS-CoV-2 virus. World inflation continued to rise, pressured by bottlenecks in production, the reallocation of spending towards merchandise, high food and energy prices, and the recovery of some services. In most major economies, both advanced and emerging, inflation remained above their central banks' targets.

In this context, the monetary authorities of most of the main advanced economies have begun the process of reducing their monetary stimulus, and the greater inflationary pressures have generated expectations that, in some cases, such as that of the US Federal Reserve, they will hasten it. In emerging economies, several central banks intensified their reference rate increases. In this environment, during most of the period, financial markets

registered greater volatility, associated with higher inflationary pressures, the expectation of an earlier-than-previously-expected reduction of monetary stimulus in some advanced economies, the evolution of the pandemic, and uncertainty in light of the emergence of the Omicron variant of the SARS-CoV-2 virus and its possible effects on economic recovery and inflation.

Among the risks to the global economy, those associated with the pandemic, inflationary pressures, and adjustments to monetary and financial conditions stand out, as does the possibility that disruptions in supply chains may last longer than expected. Also, although some of the factors that have driven world inflation are expected to have a temporary effect on annual inflation, a scenario in which these could become more persistent cannot be ruled out, which would lead to a faster tightening of monetary policy in some countries and generate new episodes of volatility in financial markets.

**Chart 1**  
**Global: Purchasing Managers' Index:**  
**Production Component**  
Diffusion Index, s. a.



s. a. / Seasonally adjusted figures.  
Source: IHS Markit.

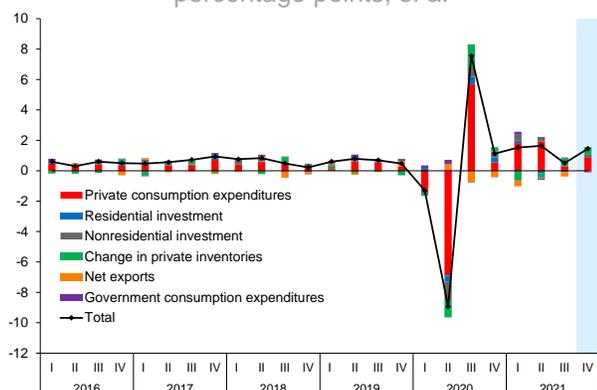
In the United States, after having grown 0.5% during the third quarter at a seasonally adjusted quarterly rate,<sup>1</sup> available indicators suggest that economic activity accelerated its pace of expansion during the fourth quarter (Chart 2). This reflects the advances in the vaccination process and a decline in the number of infections as compared to the summer months. Growth is expected to have been driven by

<sup>1</sup> Expressed as a quarterly annualized rate, US seasonally adjusted GDP grew at a rate of 2.1% during the third quarter of 2021.

household consumption, which in turn was supported by still accommodative financial conditions, favorable household finances, and relatively high levels of employment. Available data on capital goods orders suggests a rebound in investment, while indicators on business inventories suggest that these could contribute positively to growth during the fourth quarter. Net exports are also expected to have a positive contribution given the rebound in exports, especially automotive ones. Regarding progress on the approval of a social spending package, although it has already been approved by the House of Representatives, it still needs to be ratified by the Senate.

**Chart 2**  
**US Real GDP and Components**

Quarterly percentage rate and contributions in percentage points, s. a.



s. a. / Seasonally adjusted figures.

Note: The shaded area refers to Blue Chip's forecasts of December 2021.

Source: BEA and Blue Chip.

US industrial production grew at a monthly rate of 1.6% in October, after having contracted 1.3% in September. This reflected a generalized growth in its main sectors. Particularly noteworthy was the 4.1% expansion in mining as a result of the normalization of oil and gas extraction activities, following the dissipation of the adverse effects of Hurricane Ida in the Gulf of Mexico region at the end of August and beginning of September. The manufacturing sector exhibited a recovery, driven by the petrochemical and automotive sectors. The Purchasing Managers' Index (PMI) of the manufacturing sector suggests that the sector will continue to be affected by the persistence of bottlenecks, high input costs, and labor shortages.

<sup>2</sup> In annualized terms, euro area GDP registered a quarter-on-quarter seasonally adjusted variation of 9.3% during the third quarter of 2021.

The US labor market continued to recover in November, although at a slower pace than in previous months. The non-farm payroll increased by 210 thousand jobs in that month, after having expanded by 546 thousand jobs in October, which reflects a moderation in the growth of the leisure and hospitality sectors. In November, the level of employment was 3.9 million below pre-pandemic levels, while the unemployment rate declined from 4.6% in October to 4.2% in November, due to the strong expansion of employment.

In the euro area, available indicators suggest that, during the fourth quarter, economic activity moderated its pace of recovery, after having expanded 2.2% at a seasonally adjusted quarterly rate in the third quarter.<sup>2</sup> The lower dynamism may respond to the impact on production chains and the reimposition of containment measures in response to the increase in the number of COVID-19 cases, although these have varied in magnitude and duration within the economies of the region. Despite the aforementioned, economic activity would continue being supported by domestic demand, particularly household consumption, which has been favored by the recovery of the labor market. Likewise, public and private investment have started to show the effects of the implementation of the Recovery and Resilience Facility Plan. The unemployment rate decreased from 7.4% in September to 7.3% in October. Meanwhile, the Purchasing Managers' Indices suggest that economic activity will continue to recover, although it will still be affected by the aforementioned factors.

In the United Kingdom, available indicators point to a sustained recovery of economic activity during the fourth quarter of 2021, after having expanded at a seasonally adjusted quarterly rate of 1.3% during the third quarter.<sup>3</sup> Economic activity has been supported by domestic demand, as the recovery in employment has translated into a recovery in household consumption. However, distortions in supply chains, the high number of COVID-19 cases, and the weakness in trade and investment associated with its exit from the European Union (Brexit) continued to affect the economic recovery. Regarding the labor market, the unemployment rate declined from 4.3% in September to 4.2% in October. The Purchasing Managers' Indices suggest that manufacturing and services activities will continue recovering.

<sup>3</sup> In annualized terms, the quarterly seasonally adjusted variation of UK GDP during the third quarter of 2021 was 5.1%.

In Japan, available information suggests that, after having contracted at a seasonally adjusted quarterly rate of 0.9% during the third quarter, economic activity rebounded during the fourth quarter due to the lifting of the state of emergency and the easing of supply restrictions.<sup>4</sup> In particular, household consumption, especially of services, registered significant growth in October as mobility restrictions were lifted. Production and exports, mainly of automobiles and industrial inputs, recovered, although they continued to be affected by bottlenecks and shortages of semiconductors. Meanwhile, the unemployment rate declined from 2.8% in September to 2.7% in October. Purchasing Managers' Indices suggest that activity in the services and manufacturing sectors continued to recover during the remainder of the fourth quarter. The recovery of economic activity would continue to be driven by the government's recently announced fiscal stimulus package, which is expected to be approved by the end of 2021.

During the fourth quarter, the main emerging market economies have grown heterogeneously across regions and countries, depending on the evolution of the pandemic and the exposure of each country to the impact on global supply chains, as well as, in some cases in Latin America and Emerging Europe, the tightening of financial conditions. In Latin America, indicators point to a continued recovery of economic activity in most countries, although in some cases at a slower pace than in the previous quarter. In Emerging Asia, available information suggests robust GDP growth in most economies, due to the gradual normalization of productive activities after the emergence of new COVID-19 cases in the previous months. In particular, in China, timely indicators point to an increase in economic activity mainly explained by a recovery in private consumption and a favorable performance of industrial production. In Emerging Europe, available indicators suggest that economic activity will continue to recover, although in some cases at a more moderate pace in view of the imposition of new restrictions due to the resurgence of COVID-19 cases in the region.

International commodity prices have been on a downward trend since Mexico's previous monetary policy decision. After reaching in October their highest levels in more than seven years, oil prices declined during most of November due to concerns

about the increase in COVID-19 cases in some regions, mainly in Europe, and the resulting downside risk to the recovery of world crude oil demand. At the beginning of December, prices rose, as the gradual reduction in production cuts by members of the Organization of the Petroleum Exporting Countries (OPEC) and other producers is not expected to counteract the increasing oil demand in the coming months. Natural gas prices have registered a mixed performance across regions, decreasing in the United States due to higher production and lower demand resulting from warmer-than-expected temperatures, while in the European and Asian markets, reference prices continue trending upwards. The price of most grains declined based on reports of a higher-than-expected global production and uncertainty regarding future demand. In recent weeks, the prices of most industrial metals have been subject to downward pressures due to concerns associated with the new Omicron variant of the SARS-CoV-2 virus and its possible impact on global economic activity.

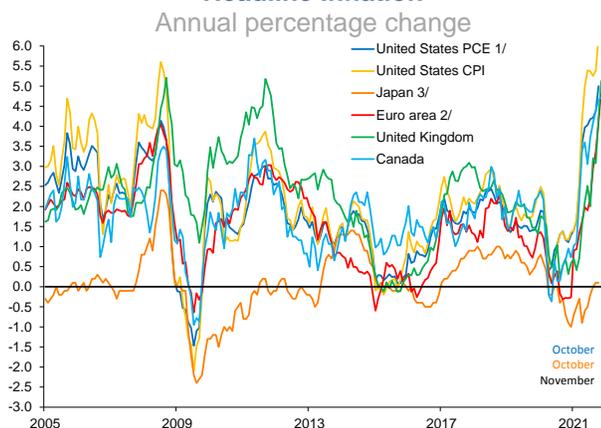
#### **A.1.2. Monetary policy and international financial markets**

World inflation continued increasing in both advanced and emerging countries, pressured by bottlenecks in production chains, the reallocation of spending towards merchandise, high food and energy prices, and the recovery of some services. Headline inflation in most of the main advanced economies continued to be above their central banks' targets, except for Japan (Chart 3). In this context, short-term inflation expectations drawn from surveys continued to increase for these economies, while longer-term inflation expectations drawn from financial instruments remained relatively stable.

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<sup>4</sup> In annualized terms, Japan GDP declined at a quarter-on-quarter seasonally adjusted variation of -3.6% during the third quarter of 2021.

**Chart 3**  
**Selected Advanced Economies:**  
**Headline Inflation**

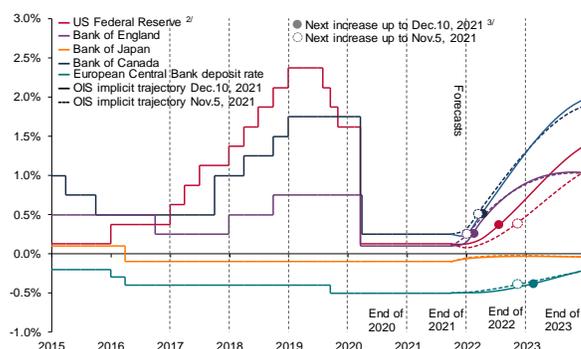


1/ The personal consumption expenditure deflator is used.  
 2/ Preliminary figures for November.  
 3/ Excludes fresh food. This series does not exclude the effect of the rise in consumption tax in May 2014 and October 2019, nor the effect of the free daycare and preschool program in October 2019.  
 Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Eurostat, Bank of Japan, Statistics Canada, Office of National Statistics.

In most of the main emerging market economies, inflation continued increasing as a result of the same factors that affected inflation in advanced economies, although in some cases the depreciation of their exchange rates has also influenced said results. Moreover, in most of these economies, inflation remained above their central banks' targets, except for some in the Asian region, such as Indonesia and China, which have faced less disruptions from the pandemic. It is worth noting that continued pressures from bottlenecks in global supply chains have been reflected in higher producer prices in both advanced and emerging economies, suggesting that world inflation could be subject to upward pressures for a longer time.

In this context, most central banks in advanced economies have started to remove their monetary stimulus, and the persistence of inflationary pressures has led to the expectation that, in some cases, this will be done at a faster pace. In this regard, the Federal Reserve doubled the pace of its asset purchase reduction and released forecasts for the federal funds rate in 2022 and 2023 with higher than anticipated increases. Expectations drawn from financial instruments anticipate interest rate increases in most of the main advanced economies throughout 2022 (Chart 4).

**Chart 4**  
**Reference Rates and Trajectories**  
**Implied in OIS Curves<sup>1/</sup>**  
 Percent



1/ OIS: Fixed floating interest rate swap where the fixed interest rate is associated to the effective overnight reference rate.  
 2/ For the observed reference rate of the US, the average interest rate of the target range of the federal funds rate (0.0% - 0.25%) is used.  
 3/ A first increase of 25bps is assumed for the US Federal Reserve and the Bank of Canada, 15 bps for the Bank of England and 10 bps for the European Central Bank and the Bank of Japan.  
 Source: Banco de México with data from Bloomberg.

Among the recent monetary policy decisions in the main advanced economies, the following stand out:

- i) At its December meeting, the US Federal Reserve left its target range for the federal funds rate unchanged at 0.0-0.25%. It indicated that it will be appropriate to maintain that range until labor market conditions have reached levels consistent with its estimate of maximum employment, acknowledging that inflation has exceeded the 2% level for some time. In addition, considering the evolution of inflation and the improvement in the labor market, the Federal Open Market Committee (FOMC) decided to accelerate the removal of monetary stimulus, doubling the pace of reduction of net asset purchases. The monthly reduction in Treasury securities net purchases was adjusted from USD 10 billion to USD 20 billion starting in January, while in agency mortgage-backed securities net purchases, it was adjusted from USD 5 billion to USD 10 billion. The Committee's medians for growth expectations were revised downwards for 2021 and 2023 and upwards for 2022, while those for the unemployment rate for 2021 and 2022 decreased. The medians of headline inflation expectations were revised from 4.2 to 5.3% for 2021, from 2.2 to 2.6% for 2022, and from 2.2 to 2.3% for 2023, and inflation is expected to be 2.1% in 2024. Regarding the timing of interest rate increases, the Fed's Chairman pointed out that all Committee members expect that the conditions for this to

happen will materialize next year, and that they anticipate a gradual pace of interest rate increases that will place the federal funds rate around its estimated long-term level by the end of 2024. In this regard, the medians of the Committee's projections published in December show an increase in the reference interest rate from 0.3 to 0.9% for 2022, from 1.0 to 1.6% for 2023, and from 1.8 to 2.1% for 2024. The above suggests the expectation of three 25 basis points interest rate increases by the end of 2022. This trajectory for the federal funds rate compares to that implied by financial instruments, which incorporates the expectation of around three increases by the end of 2022.

- ii) At its December meeting, the European Central Bank (ECB) left its refinancing rate, key deposit facility rate and key lending facility rate unchanged at 0.0, -0.5 and 0.25%, respectively. It also reiterated that the ECB board expects these interest rates to remain at current or lower levels until: i) inflation reaches the 2% target before the end of its forecast horizon; ii) inflation remains at that level for a sustained period of time over its remaining forecast horizon; and iii) the central bank considers that progress in core inflation is sufficiently advanced to be consistent with the stabilization of inflation at 2% over the medium term. Regarding its Pandemic Emergency Purchase Program (PEPP), it stated that: i) during the first quarter of 2022, it will make net asset purchases at a slower pace than in the fourth quarter of this year; ii) it will end net asset purchases by the end of March 2022; and it will extend until at least the end of 2024 the horizon for reinvesting the principal of maturing securities. However, it mentioned that flexibility will remain an element of monetary policy, that reinvestments may be adjusted, and that net purchases under the PEPP could also be resumed if necessary. In addition, the monthly pace of purchases under its Asset Purchase Program (APP) was increased to €40 billion during the second quarter of 2022, to €30 billion during the third quarter, returning to its current level of €20 billion for as long as necessary starting October 2022, and ending shortly before interest rates begin to rise. The ECB president reiterated that, under the current circumstances, it is very unlikely that interest rates will be raised in 2022.
- iii) At its December meeting, the Bank of England raised its reference interest rate by 15 basis points to a level of 0.25%. It noted that while the

Committee considered that there are upside and downside risks to the inflation outlook in the medium term, further moderate monetary tightening over the forecast period is likely to be necessary in order to meet its 2% inflation target on a sustainable basis. Regarding its asset purchase programs, although the Committee concluded the government bond purchase program announced in November 2020 as planned, it left the target amount of its government bond purchase program unchanged at £875 billion and the purchase of non-financial corporate bonds at £20 billion.

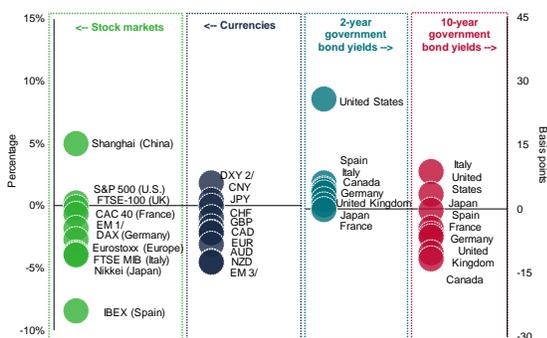
In the main emerging economies, given the continuous rise in inflation and the additional risks to price formation relative to advanced economies, a large number of central banks intensified their reference rate increases. Since the previous monetary policy decision in Mexico, the central banks of Peru, Brazil, Chile, Hungary, Poland and South Africa, among others, raised their interest rates. In contrast, Turkey's central bank announced additional interest rate decreases.

In this environment, during most of the period since the previous monetary policy decision in Mexico, international financial markets registered a significant increase in volatility and greater risk aversion, although this was partially reversed at the beginning of December (Chart 5). This behavior took place in an environment of uncertainty regarding the evolution of the pandemic, the emergence of new variants of the virus, and the possible impact that a reimposition of mobility restrictions could have on economic activity, the increase in inflationary pressures, and the expectation that the latter would accelerate the gradual removal of monetary stimulus in some advanced economies. In this context, the stock markets of most of the main advanced and emerging economies performed negatively towards the end of November, although this trend was reversed at the beginning of December due to diminished concerns regarding the severity and potential impact of the Omicron variant of the SARS-CoV-2 virus on economic activity. In foreign exchange markets, in November, the US dollar strengthened against most currencies of advanced economies. The currencies of emerging economies followed a depreciation trend, although this was partially reversed in some cases at the beginning of December (Chart 6). With respect to government bond interest rates in the main advanced economies, long-term rates decreased, while short-term rates increased, particularly in the United States. The recent increase is in line with expectations of an

earlier-than-anticipated removal of monetary stimulus. Long-term interest rates in emerging economies showed mixed movements. In this environment, moderate net capital inflows towards equity assets in some emerging market economies and outflows from fixed-income markets in most cases were observed during the period.

In addition to the aforementioned risks to global growth, there are still several risks to the stability of international financial markets that are related to inflationary pressures, to a disorderly or earlier-than-expected removal of monetary stimuli resulting in new episodes of volatility and tighter global financial conditions, to distortions in the valuation of financial assets, and to high levels of private and public sector debt that could result in default or contagion problems, among others.

**Chart 5**  
**Change in Selected Financial Indicators from November 5 to December 10, 2021**  
 Percent, basis points



1/ The MSCI Emerging Markets Index consists of 24 countries. 2/ DXY: a weighted average estimated by the Intercontinental Exchange (ICE) of the nominal exchange rate of the main six currencies operated globally with the following weights: EUR 57.6%, JPY: 13.6%, GBP: 11.9%, CAD: 9.1%, SEK: 4.2%, and CHF: 3.6%. 3/ J.P. Morgan index is constructed with the weighted average by the nominal exchange rate of emerging economies' currencies with the following weights: TRY: 8.3%, RUB: 8.3%, HUF: 8.3%, ZAR: 8.3%, BRL: 11.1%, MXN: 11.1%, CLP: 11.1%, CNH: 11.1%, INR: 11.1% and SGD: 11.1%. Source: Bloomberg and ICE.

**Chart 6**  
**Selected Emerging Economies: Financial Assets Performance since November 8, 2021**  
 Percent, basis points

Region	Country	Currencies	Equity markets	2-year Interest rates	10-year Interest rates	CDS
Latin America	Mexico	-2.57%	-1.99%	5	2	2
	Brazil	-1.50%	2.84%	-147	-125	-17
	Chile	-4.95%	0.97%	29	-50	10
	Colombia	-0.64%	-0.36%	-9	-7	39
	Peru	-1.13%	-1.26%	-2	16	1
Emerging Europe	Russia	-3.03%	-12.18%	23	37	24
	Poland	-3.29%	-8.06%	11	25	0
	Turkey	-45.77%	30.76%	331	217	126
	Czech Republic	-3.24%	1.55%	-28	-16	1
	Hungary	-4.20%	-5.77%	128	30	-1
Asia	China	0.44%	5.21%	6	-1	-9
	Malaysia	-1.79%	-2.64%	6	4	-8
	India	-2.35%	-3.74%	1	7	5
	Philippines	-0.33%	-2.69%	34	13	-2
	Thailand	-1.07%	-0.02%	-2	7	-4
	Indonesia	-0.60%	0.46%	-2	27	-9
Africa	South Africa	-6.52%	5.39%	-24	14	30

Note: Interest rates correspond to swap rates at the specified terms, except for Hungary, where government securities with 3-year (instead of 2-year) maturities were used as a reference. For the Philippines, a 2-year swap rate is used. Source: Bloomberg.

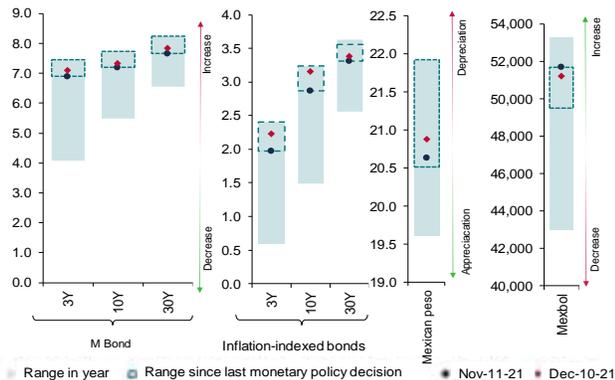
## A.2. Current situation of the Mexican economy

### A.2.1. Mexican markets

Since the previous monetary policy decision, financial asset prices in Mexico have exhibited a negative behavior (Chart 7), in an environment of volatility in global financial markets and in which the normalization of monetary policy by the central banks of the major advanced countries is anticipated to begin earlier-than-previously expected.

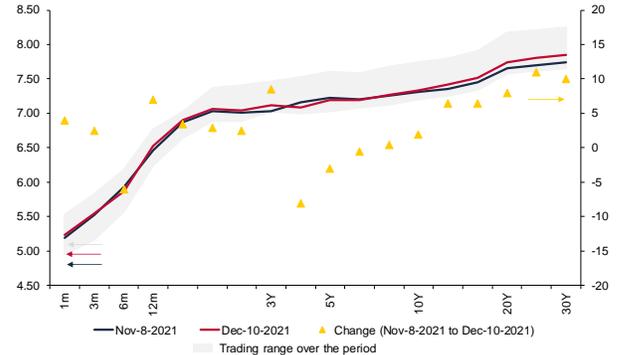
The Mexican peso fluctuated in a wide range of 1 peso and 61 cents, between 20.32 and 21.92 pesos per dollar, ending the period with a depreciation of 2.57% (Chart 8). This occurred in a context in which both spot- and future trading conditions deteriorated with respect to the previous period.

**Chart 7**  
**Mexican Markets' Performance**  
 Percent, MXN/USD and index



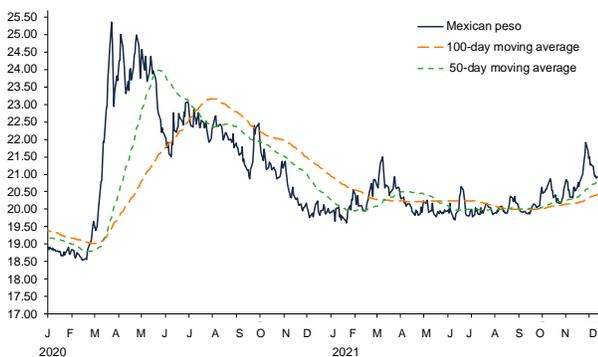
Source: Prepared by Banco de México.

**Chart 9**  
**Nominal Yield Curve of Government Securities**  
 Percent, basis points



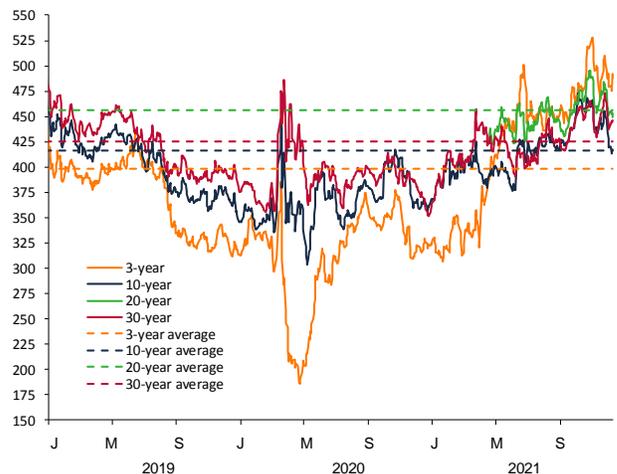
Note: The chart does not include bonds maturing in December 2021 and June 2022. CETES with similar maturities are considered.  
 Source: PIP.

**Chart 8**  
**Mexican Peso Exchange Rate with Moving Averages**  
 MXN/USD



Source: Prepared by Banco de México.

**Chart 10**  
**Compensation for Inflation and Inflationary Risk Implicit in Government Securities' Interest Rate**  
 Basis points



Source: PIP.

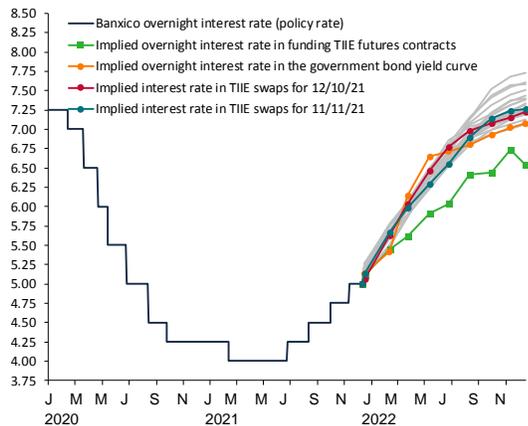
Interest rates of government securities exhibited a steepening (Chart 9), with movements between -9 and 4 basis points in bonds of shorter terms and increases of up to 11 basis point in long-term ones. In contrast, the yield curve of real interest rate instruments exhibited a flattening dynamic, with increases of up to 19 basis points in short-term Udibonos and of between -1 and 4 basis points in long-term ones. In this context, compensation for inflation and inflationary risk implicit in spreads between nominal and real rates of market instruments decreased for most terms (Chart 10). These movements took place in an environment in which trading conditions deteriorated during the period covering the monetary policy decision.

In line with the swap mechanism established between Banco de México and the Federal Reserve, on November 10 a dollar funding auction was held in which resources totaling USD 50 million were allocated.

Regarding expectations for the trajectory of the monetary policy reference rate, information implied by the Interbank Equilibrium Interest Rate (TIIE, for its Spanish acronym) swap curve incorporates an increase of around 62 basis points for the December 2021 and February 2022 meetings, while for the end of 2022 it points to a reference rate close to 7.23% (Chart 11). Finally, most forecasters surveyed by Citibanamex anticipate the reference rate to increase

by 25 basis points to 5.25% for the December 2021 decision and a rate of 6.25% for the end of 2022.

**Chart 11**  
**Banco de México Overnight Interbank Rate Implied in the TIE IRS Curve**  
 Percent



Source: Prepared by Banco de México with Bloomberg data.

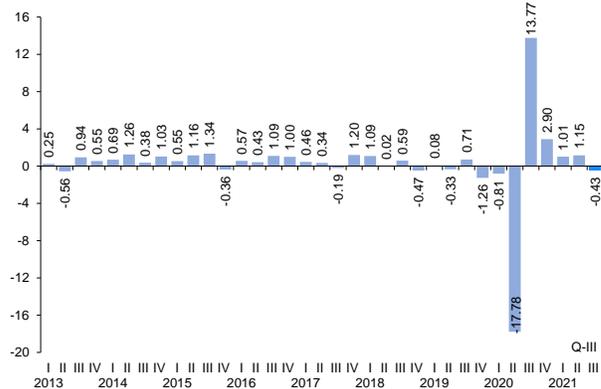
### A.2.2. Economic activity in Mexico

During the third quarter, economic activity halted its recovery (Chart 12), in a context of an upsurge of the pandemic, persistence of disruptions in global supply chains, and a transition towards the new regulation on labor outsourcing. Information available up to October shows some reactivation of economic activity. A heterogeneous performance of economic activity across sectors and uncertainty regarding the evolution of the pandemic in light of the emergence of new variants persist.

As for external demand, in October the value of non-automotive manufacturing exports remained at high levels, while automotive exports continued to be affected by production issues worldwide (Chart 13).<sup>5</sup> By destination, manufacturing exports to the United States showed a certain lack of dynamism at the margin, while those to the rest of the world followed a downward trajectory.

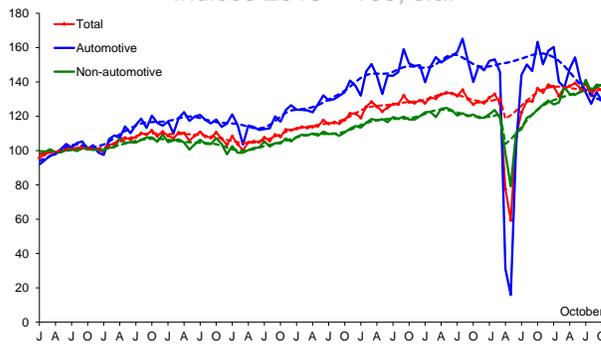
<sup>5</sup> Refers to the value of merchandise exports in US dollars. This value differs from that reported for goods exports by Mexico's System of National Accounts (SCNM, for its acronym in

**Chart 12**  
**Gross Domestic Product**  
 Quarterly percentage change, s.a.



s. a./ Seasonally adjusted figures.  
 Source: Mexico's System of National Accounts (SCNM, for its Spanish acronym), INEGI.

**Chart 13**  
**Total Manufacturing Exports**  
 Indices 2013 = 100, s.a.



s. a. / Seasonally adjusted series and trend series based on data in nominal US dollars. The former is represented by a solid line and the latter by a dotted line.

Source: Prepared by Banco de México with data from the Tax Administration Service (SAT, for its Spanish acronym), the Ministry of the Economy (SE, for its Spanish acronym), Banco de México, the National Institute of Statistics and Geography (INEGI, for its Spanish acronym), Mexico's Merchandise Trade Balance, and the National System of Statistical and Geographical Information (SNIEG, for its Spanish acronym), Information of national interest.

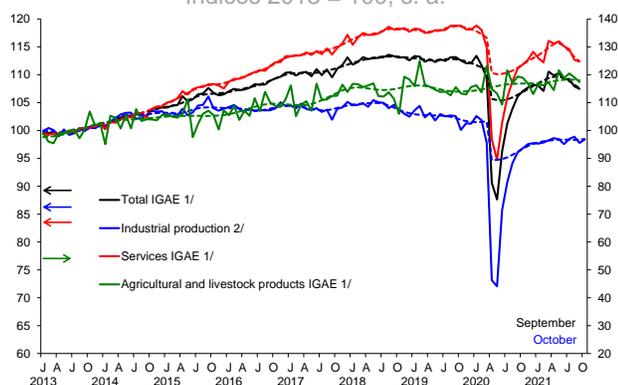
According to its monthly indicator, at the end of the third quarter, private consumption registered a moderate recovery, after the weak performance exhibited in previous months. Within it, consumption of services recovered slightly, although it still remains below the levels observed in February 2020. Consumption of goods of national origin exhibited a lackluster performance and that of goods of imported origin an incipient downward change of trend. In September, gross fixed investment partly reversed the moderate recovery of the previous two months.

Spanish), given that the latter represents the value-added measured in constant pesos.

This reflected the reduction of spending in both construction and machinery and equipment.

As for production, in October industrial activity partially recovered from the decline observed during the previous month, although it still remained weak (Chart 14). The result in that month was driven by the behavior of manufacturing, although disruptions in global supply chains and shortages of certain inputs persist (Chart 15). Mining continued to show a lackluster performance, while construction followed an incipient downward trend. In September, services fell for the fourth consecutive month, with marked differences across its sectors. A decline was observed in professional, corporate and business support services (related to the entry into force of the new regulation on outsourcing) and in retail trade. In contrast, the increases in transportation and mass media information services; wholesale trade services, as well as temporary accommodation and food and beverage preparation services stood out.

**Chart 14**  
Global Indicator of Economic Activity  
Indices 2013 = 100, s. a.



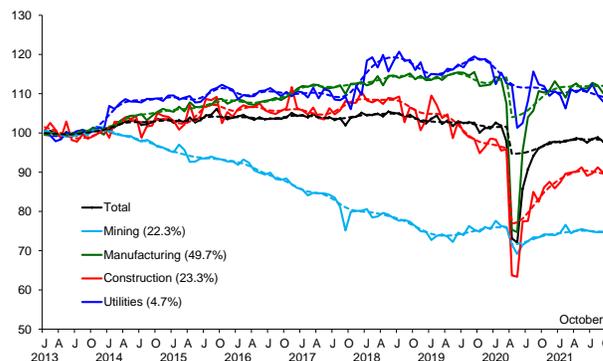
s. a. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line.

1/ Figures for September 2021.

2/ Figures for October 2021, Monthly Indicator of Industrial Activity.

Source: Mexico's System of National Accounts (SCNM, for its Spanish acronym), INEGI.

**Chart 15**  
Industrial Activity<sup>1/</sup>  
Indices 2013 = 100, s. a.

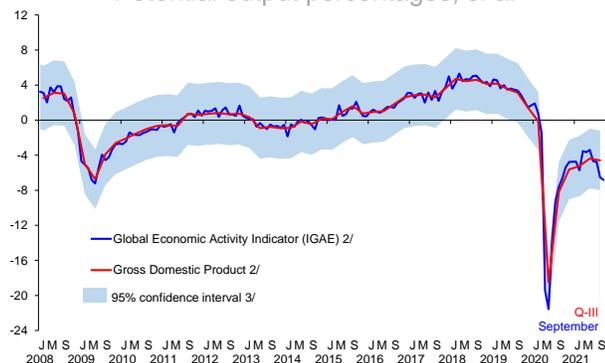


s. a. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line.

1/ Figures in parenthesis correspond to their share in the total in 2013. Source: Mexico's System of National Accounts (SCNM, for its Spanish acronym), INEGI.

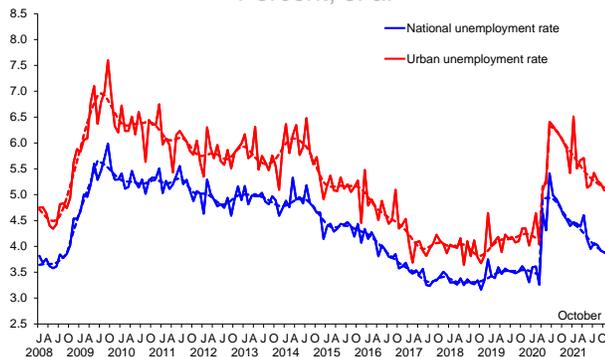
Regarding the economy's cyclical position, slack conditions remained significantly ample during the third quarter of the year, with marked differences across sectors (Chart 16). In October, several labor market indicators showed some improvement, partially reversing the weakness they had registered during the previous two months. In particular, the labor participation rate and the employment-to-working age population ratio increased, after having declined for two consecutive months. The national unemployment rate remained at a level similar to that of the previous month, while the urban unemployment rate decreased (Chart 17). In November, based on seasonally-adjusted figures, the creation of IMSS-insured jobs was slightly above February 2020 levels, prior to the health emergency. Finally, in September, unit labor costs in the manufacturing sector increased, reflecting the behavior of both real average earnings and labor productivity (Chart 18).

**Chart 16**  
**Output Gap Estimates<sup>1/</sup>**  
**Excluding Oil Industry<sup>4/</sup>**  
 Potential output percentages, s. a.



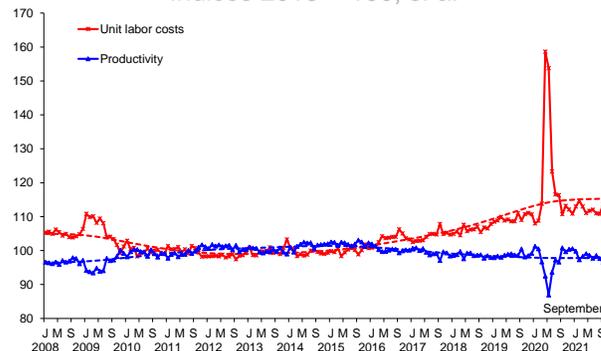
s. a. / Calculations based on seasonally adjusted figures.  
 1/ Output gap estimated with a tail-corrected Hodrick-Prescott filter; see Banco de México (2009), "Inflation Report, April-June 2009", p.74.  
 2/ GDP figures up to Q3 2021, and IGAE figures up to September 2021.  
 3/ Output gap confidence interval calculated with a method of unobserved components.  
 4/ Excludes both oil and gas extraction, support services for mining, and petroleum and coal products' manufacturing. Source: Prepared by Banco de México with INEGI data.

**Chart 17**  
**National and Urban Unemployment Rates**  
 Percent, s. a.



s.a./ Seasonally adjusted series and trend series. The former is represented by a solid line and the latter by a dotted line.  
 Source: Prepared by Banco de México with data from ENOE, ETOE (from April to June 2020), and ENOE new edition (ENOEN) from July to date.

**Chart 18**  
**Productivity and Unit Labor Costs in the**  
**Manufacturing Sector<sup>1/</sup>**  
 Indices 2013 = 100, s. a.



s. a. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line.  
 1/ Productivity based on hours worked. Source: Prepared by with seasonally adjusted data of the Monthly Manufacturing Industry Survey and industrial activity indicators of Mexico's System of National Accounts (*Sistema de Cuentas Nacionales de México*, SCNM), INEGI.

In October 2021, domestic financing to firms continued moderating its contraction in real terms at an annual rate. This was observed for both large- and smaller-sized firms, with the latter standing out for registering an increase at the margin in their portfolio balances for the fourth consecutive month. The demand for corporate credit continued to recover, although it remains at low levels. Lending conditions to firms have remained relatively stable so far this year; thus, they continue to be tight. In October and November, net corporate debt issuance in the domestic market showed a low dynamism. In terms of credit to households, the housing portfolio continued to show a positive real annual variation, with the greater dynamism of commercial bank credit during the last four months standing out. In turn, the outstanding consumer bank loan portfolio reduced its annual rate of contraction for the seventh consecutive month, where the sustained dynamism in payroll loans and an increase in the balance of credit card portfolio at the margin stand out. This occurred in a context of a gradual recovery of household demand for credit. As for lending conditions, mortgages remained stable, while in the case of consumer portfolio, those for credit cards and payroll loans eased, while those for the rest of the segments remained tight.

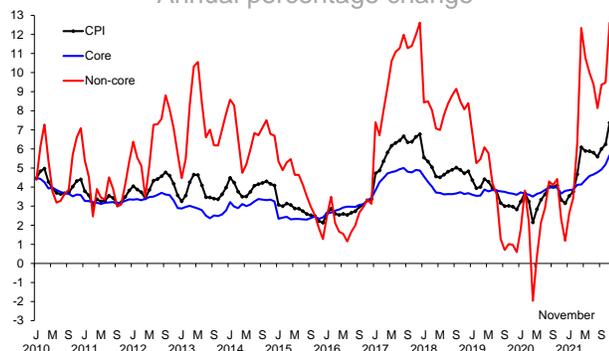
Interest rates of bank credit to firms have followed the dynamic of the bank funding rate. Intermediation margins remained relatively stable, registering high levels, although close to pre-pandemic levels. In turn, mortgage interest rates remained at levels around their historic lows. In August, credit card and personal credit interest rates were at levels similar to those observed during the first quarter of the year.

Thus, consumer credit intermediation margins remained at levels higher than pre-pandemic ones. With respect to portfolio quality, in October, corporate loan delinquency rates decreased and continued at low levels. Mortgage loan delinquency rates decreased for the second consecutive month and also remained at low levels. Finally, consumer portfolio delinquency rates remained without significant changes, after having decreased for seven consecutive months, although they remain at high levels.

### A.2.3. Development of inflation and inflation outlook

Annual headline inflation increased from 6.24 to 7.37% between October and November (Chart 19 and Table 1). This behavior was determined by the increase in non-core inflation, associated with the higher levels of inflation of agricultural and livestock products and energy, while core inflation continued to rise, reflecting cost-related pressures, the reallocation of household spending towards merchandise, and the effects of the reopening of several activities, which keep pushing merchandise and services inflation.

**Chart 19**  
Consumer Price Index  
Annual percentage change

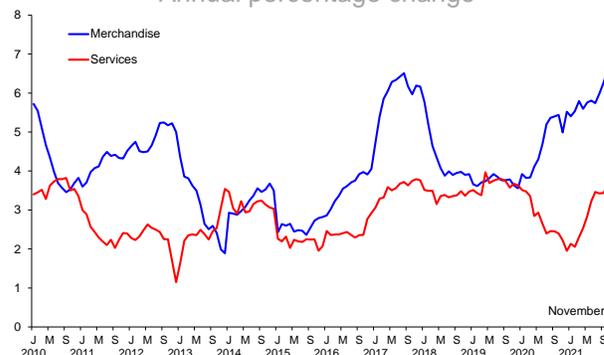


Source: Banco de México and INEGI.

Between October and November 2021, annual core inflation rose from 5.19 to 5.67%, thus accumulating twelve consecutive months of increases. Within it, annual merchandise inflation rose from 6.58 to 7.24%, driven by the disruptions in production and supply chains, bottlenecks and the resulting higher production costs, coupled with the reallocation of spending towards these goods (Chart 20). The above is taking place in a context of global supply and demand imbalances. In particular, between October and November 2021, annual food merchandise inflation increased from 7.16 to 7.59%, while non-food merchandise inflation rose from 5.94 to 6.86% (Chart 21). The behavior of both of them was also

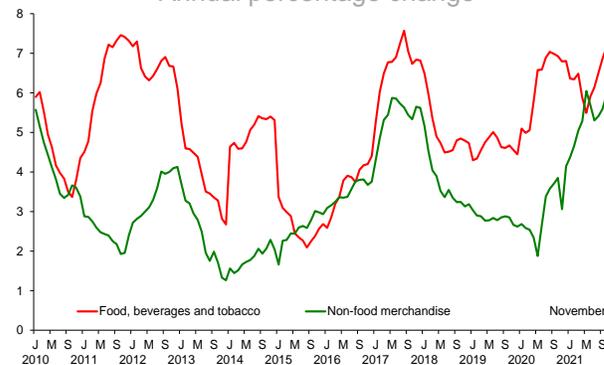
influenced upwards, to some extent, by the fact that the "El Buen Fin" discount sales campaign that takes place in November had a shorter duration in 2021 than in the previous year. Between October and November 2021, the annual inflation of services increased from 3.64 to 3.92%, reflecting the reopening of these activities and the high demand that had been contained for several months, combined with the increase in business operating costs due to the restrictions associated with the pandemic. Worth highlighting is the increase from 5.11 to 5.60% in the annual inflation of services other than education and housing, within which the highest annual variations in the prices of air transportation, food services and tourism services stood out.

**Chart 20**  
Merchandise and Services Core Price Sub-index  
Annual percentage change



Source: Banco de México and INEGI.

**Chart 21**  
Merchandise Core Price Sub-index  
Annual percentage change



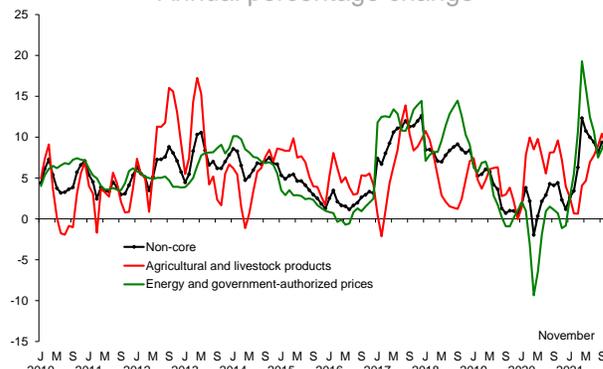
Source: Banco de México and INEGI.

Between October and November 2021, annual non-core inflation rose from 9.47 to 12.61% (Chart 22 and Table 1). This behavior reflected the increase from 9.02 to 14.36% in the annual inflation of agricultural and livestock products, associated in turn with the greater annual variation of fruit and vegetable prices, which went from 5.72 to 17.80%, while the annual

inflation of livestock products registered levels of 11.98 and 11.44%, respectively. Likewise, during this period, annual energy inflation rose from 13.44 to 15.41%.

As for inflation expectations drawn from Banco de México's Survey among Private Sector Forecasters, between October and November, the median of expected headline inflation for the end of 2021 increased from 6.63 to 7.22%, while that for core inflation went from 5.30 to 5.50%. Median expectations for the end of 2022 were adjusted from 3.84 to 4.03% for headline inflation, while those for core inflation remained at 3.83%. The medians of headline and core inflation expectations for the medium term were adjusted upwards, from 3.60 to 3.68% and from 3.56 to 3.60%, respectively. Long-term inflation expectations remained at around 3.50%. Finally, compensation for inflation and inflationary risk decreased, but remains at high levels. Expectations implicit in market instruments continued trending upwards, while the inflation risk premium decreased slightly, although it remains at high levels.

**Chart 22**  
**Non-core Price Sub-index**  
 Annual percentage change



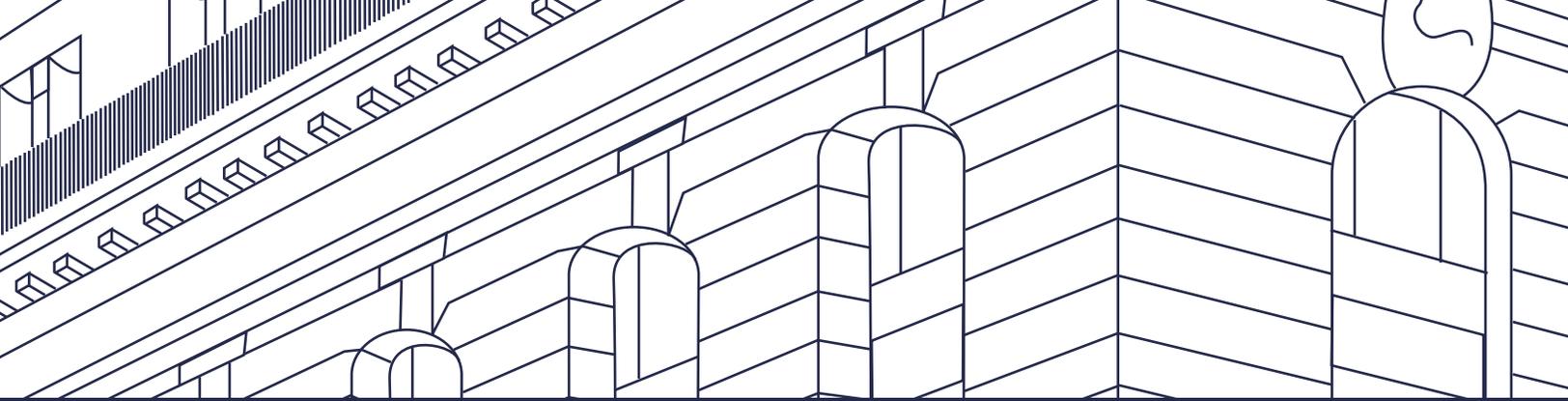
Source: Banco de México and INEGI.

Headline and core inflation forecasts were once again revised upwards, especially for 2022. Their annual variations are expected to decrease to a larger extent after one year, and converge to the 3% target by the end of the forecast horizon. These projections are subject to risks. On the upside: i) external inflationary pressures; ii) cost-related pressures; iii) core inflation persistence at high levels; iv) exchange rate depreciation; and v) increases in agricultural and livestock product prices and in energy prices. On the downside: i) a widening of the negative output gap; ii) social distancing measures; and iii) exchange rate appreciation. The balance of risks for the trajectory of inflation within the forecast horizon has deteriorated further and remains biased to the upside.

**Table 1**  
**Consumer Price Index and Components**  
Annual percentage change

Item	September 2021	October 2021	November 2021
<b>CPI</b>	<b>6.00</b>	<b>6.24</b>	<b>7.37</b>
<b>Core</b>	<b>4.92</b>	<b>5.19</b>	<b>5.67</b>
<b>Merchandise</b>	<b>6.26</b>	<b>6.58</b>	<b>7.24</b>
Food, beverages and tobacco	6.87	7.16	7.59
Non-food merchandise	5.59	5.94	6.86
<b>Services</b>	<b>3.43</b>	<b>3.64</b>	<b>3.92</b>
Housing	2.26	2.37	2.46
Education (tuitions)	2.04	2.09	2.09
Other services	4.78	5.11	5.60
<b>Non-core</b>	<b>9.37</b>	<b>9.47</b>	<b>12.61</b>
<b>Agricultural and livestock products</b>	<b>10.41</b>	<b>9.02</b>	<b>14.36</b>
Fruits and vegetables	9.38	5.72	17.80
Livestock products	11.29	11.98	11.44
<b>Energy and government-authorized prices</b>	<b>8.55</b>	<b>9.82</b>	<b>11.26</b>
Energy products	11.69	13.44	15.41
Government-authorized prices	1.86	1.88	1.97

Source: INEGI.



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