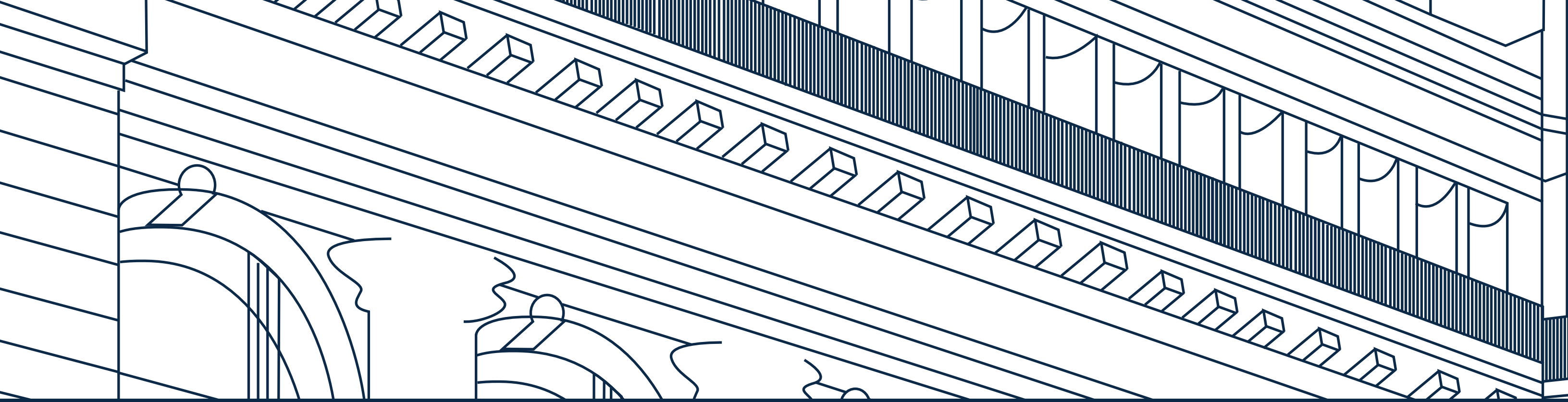

BANCO DE MÉXICO®

Minutes number 98

Meeting of Banco de México's Governing Board on the occasion of the monetary policy decision announced on February 9, 2023

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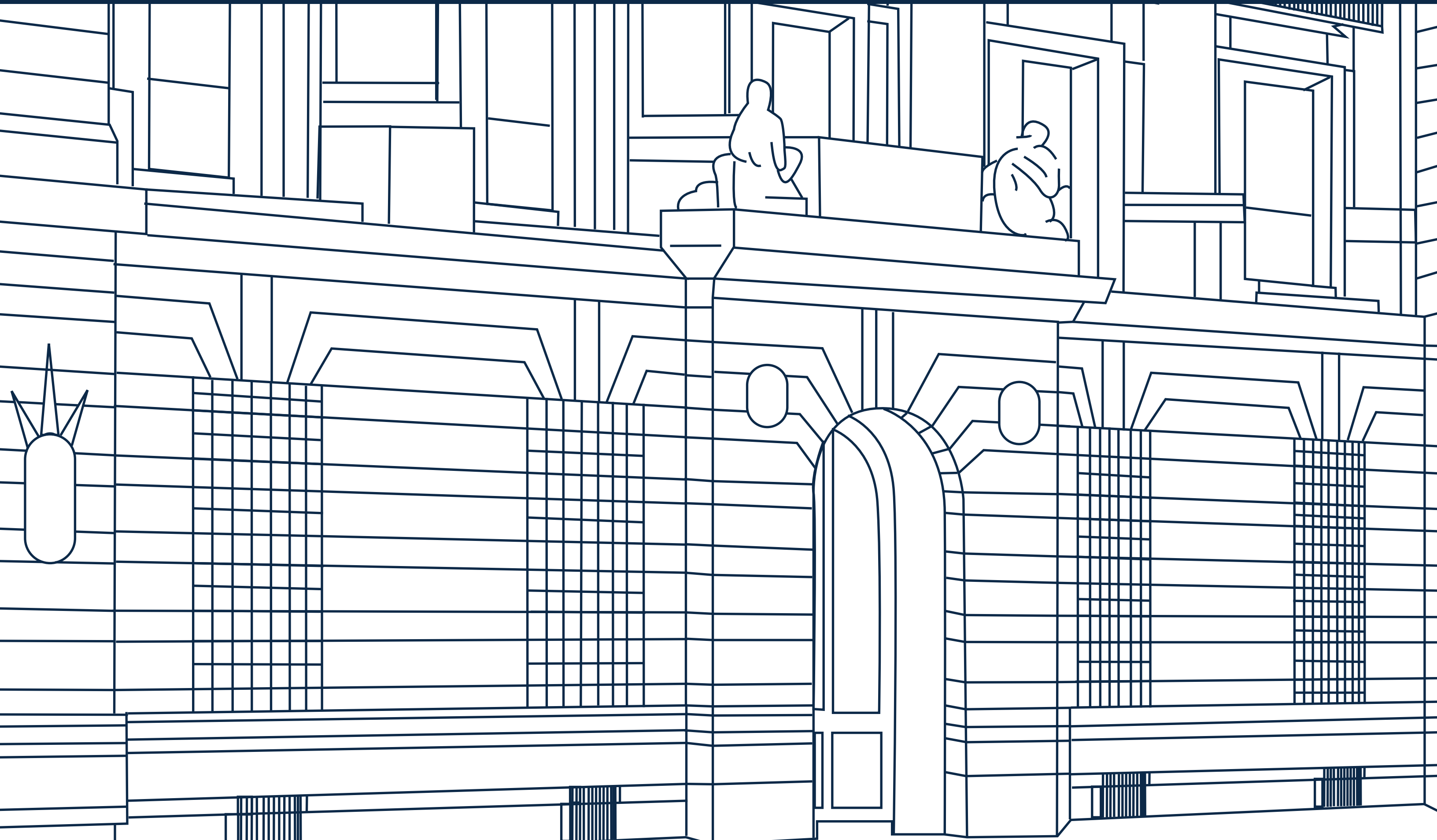

FOREWARNING
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1. PLACE, DATE AND PARTICIPANTS

1.1. Place: Meeting held by virtual means.

1.2. Date of Governing Board meeting: February 8, 2022.

1.3. Participants:

Victoria Rodríguez, Governor.
Galia Borja, Deputy Governor.
Irene Espinosa, Deputy Governor.
Jonathan Heath, Deputy Governor.
Omar Mejía, 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

Most members mentioned that world economic growth moderated during the fourth quarter of 2022. They agreed that this was due to the negative effects of the military conflict in Ukraine, the resurgence of infections in China, and tight monetary conditions. Some members considered that there are signs of disturbances in international trade. **One** member noted that forward-looking indicators of manufacturing and services for this year are at contraction levels. **However, most members stated that labor markets in advanced economies continued showing signs of tightening. Some** members highlighted that in the United States the last employment data surprised to the upside. **One** member argued that, while some indicators associated with financial markets seem to anticipate an economic recession, the employment data appears to be more consistent with a slowdown, rather than a long and lasting contraction.

Most members noted that global growth forecasts for 2023 continue pointing to a deceleration. However, they stated that they were revised upwards from what had been previously anticipated. They highlighted the improvement in growth expectations for advanced economies. One member indicated that a heterogeneous behavior is expected among emerging economies. **Some** members mentioned that the outlook for the Chinese economy improved due to the reopening of its activities. Among global risks, **some** members pointed out the tight monetary and financial conditions, as well as risks associated with a worsening of geopolitical tensions. **One** member added the risks derived from the pandemic. **Another** member considered that the balance of risks for the global economy remains biased to the downside.

Most members highlighted that although headline inflation decreased in a large number of economies, it remains high globally. They warned that it remains above the central banks' targets. They attributed the decline in headline inflation to lower pressures on energy prices. Some members added the effect of lesser disruptions in supply chains. **One** member pointed to the lower costs of maritime transport and decreased scarcity of commodities. **Another** member considered the decline in durable goods' prices and the greater stability of inflation expectations. **One** member highlighted the moderation in food prices. **Another** member mentioned that the central banks' actions have begun to have results on the evolution of inflation.

Nevertheless, most members highlighted that, in several cases, the core component still does not show a downward inflection point. One member delved into the fact that this is due to the presence of pressures on the prices of services and merchandise. **Some** members indicated that inflation is expected to converge to the central banks' targets for the end of 2024 or in early 2025. **One** member mentioned that inflation is expected to decline more slowly in emerging economies, than in the advanced ones. **Finally, most members pointed out that, although world inflation is expected to continue declining, several risks and a high level of uncertainty persist.**

Most members indicated that the majority of central banks continued raising their reference rates. They noted, however, that in some cases

the magnitude of the increases moderated. Some members stated that further increases in reference rates are anticipated. **In addition, most members noted that, according to central banks' communication, said rates are likely to remain high for an extended period. Some** members highlighted that markets continue foreseeing cuts to reference rates of several central banks towards the end of 2023. **In this regard, most members warned that a divergence is being observed, between markets' and central banks' forecasts regarding the path of monetary policy, which, in their opinion, poses significant challenges for their communication. They emphasized that this divergence could imply risks for the global financial system. One** member mentioned that an abrupt correction of market expectations could become a factor of financial instability in the future. **Another** member added that in the case of the Federal Reserve there is uncertainty about whether this is due to differences in the anticipated speed of inflation convergence or in the probability assigned to an economic recession.

All members stated that, in its last meeting, the Federal Reserve raised the target range for the federal funds rate by 25 basis points. Some members pointed out that this represented a slowdown in the pace of tightening. **One** member pointed out that this occurred in a context of lower figures for both headline and core inflation. **Another** member noted that the chairman of the Federal Reserve indicated that the reduction in the pace of interest rate hikes will allow to assess the economy's progress toward its goals and to determine the required magnitude of future increases. **Most members underlined that said central bank anticipated additional increases. One** member pointed out that, regardless, economic analysts had made only small revisions to the possible level of the terminal rate for that institution.

Most members mentioned that international financial conditions eased during the period. They argued that yield curves have flattened and the US dollar has depreciated. Some members highlighted that stock market indices increased. **Most members pointed out that this easing was partly due to markets' expectations that central banks could begin to cut their reference rates towards the end of the year. However, they indicated that financial conditions remain at restrictive levels. Some** members noted that, in this context, emerging economies registered a positive performance, with capital inflows to different asset classes. **One** member stated that this was due to a renewed interest in riskier assets and to expectations of high interest rate spreads relative to the Federal Reserve. **Some** members indicated that, towards the end of the period, markets reversed some of their gains after the release of the US employment report.

Economic activity in Mexico

Most members highlighted that the flash estimate of GDP suggests that the Mexican economy continued growing during the fourth quarter of 2022. However, they noted that it lost momentum as compared to previous quarters. They argued that this was due to a weakening of industrial activities and of services. In contrast, **one** member noted that primary activities remain showing dynamism. **Regarding the components of industrial activity, most members added that the manufacturing sector has moderated due to the slowdown in US demand.** In this regard, **some** members mentioned the fall in non-automotive exports. **One** member also highlighted the slowdown in automotive exports. He/she pointed out that the mining and electricity sectors registered a lack of dynamism. **Another** member mentioned that the construction sector has exhibited some recovery. Regarding services, he/she stated that its components continued to perform heterogeneously **One** member pointed out that the Global Economic Activity Indicator (IGAE, for its acronym in Spanish) figures for November suggests that the weak performance of the services sector can be attributed to a lower dynamism in commerce and in accommodation and food preparation services. However, he/she specified that the GDP flash estimate suggests an improvement in services in December. **Most members foresee that in the next quarters the lower economic dynamism at a global level will result in lower growth rates of domestic economic activity.** Regarding the cyclical position of the economy, **some** members indicated that the output gap is expected to have continued narrowing in view of the recovery of the Mexican economy. **One** member added that, although it is in negative territory, it is not statistically different from zero.

Most members highlighted that private consumption has moderated. However, **one** member note that it remains elevated. **Some** members noted that consumption of durable and non-durable goods has weakened. **Some** members stated that indicators of the determinants of consumption, such as consumer confidence, remittances and the wage bill, remain at high levels. **One** member warned that in general the slowdown in consumption and services could be associated with high inflation levels in Mexico, which may explain why some of the sectors with the greatest inflationary pressures are also sectors in which activity is lagging. **Another** member mentioned that despite the slowdown during the fourth quarter of 2022, consumption has grown at rates above those of economic activity, which suggests the presence of demand-related pressures on prices.

Most members stated that gross fixed investment remained sluggish. One member pointed out that, from a medium-term perspective, the most dynamic component has been imported machinery and equipment, without which investment would be significantly below its pre-pandemic levels. **However, most members noted that, at the margin, construction displayed a slight reactivation.** In contrast, **some** members indicated that investment in machinery and equipment declined. **One** member argued that the lack of investment has restricted aggregate supply, and coupled with the lack of competitive conditions in many sectors, has resulted in an inelastic demand in the face of price increases.

Most members agreed that the labor market continues to strengthen. They described that the participation rate continues recovering and that unemployment rates remain at low levels. One member added that complementary rates, such as under-employment, continue decreasing. **Another** member noted that the employment rate improved relative to the third quarter, reaching a level similar to that reported prior to the health emergency. **One** member highlighted that the unemployment rate is below pre-pandemic levels. **Some** members mentioned that the labor market is showing signs of tightening. **Some** members considered that the information drawn from business opinion surveys reflects a dynamic and growing labor market, considering the information they provide on the evolution of vacancies, quits, and layoffs. **One** member indicated that part of the tightening in the labor market can be explained by a greater improvement in employment rates, as compared to labor participation, especially for men, which has contributed to a lower rate of unemployment. He/she argued that, according to the National Survey of Occupation and Employment (ENOE, for its acronym in Spanish), a lower participation rate is observed with respect to the levels observed prior to the pandemic due to a decline in the labor force in both young and older age groups. He/she noted that as age groups transition into the next age range, participation is likely to increase and some signs of tightening may thus decrease. However, he/she warned that this may take a long time. In this context, **another** member stated that the increase in the IMSS-insured workers average base salary and contractual wage revisions remain at high levels and noted that these wage increases are generating inflationary pressures given the deterioration in labor productivity.

Inflation in Mexico

All members highlighted that in January headline inflation reached 7.91%. They added that the core component registered 8.45%. Most members warned that, although headline inflation was lower than expected, core inflation surprised to the upside. On the other hand, they acknowledged that global inflationary pressures have somewhat eased. In this context, **one** member considered that there are signs that some pressures on inflation in Mexico have indeed started to moderate. In this regard, he/she mentioned that seasonally adjusted and annualized monthly changes in headline inflation have kept declining since August 2022. He/she argued that the trimmed mean indicators of headline and core inflation are below observed inflation figures, which means that the extreme upward variations in some subcomponents have affected the observed data, although they have begun to stabilize. He/she noted that the number of CPI items showing variations above 10% has continued to decrease. **Another** member pointed out that, indeed, the current inflationary scenario contrasts with the one observed a few months ago, when upward shocks were generalized. However, he/she stated that, although some shocks have eased, this does not mean that the inflationary problem is close to being solved. He/she highlighted that the environment continues to be characterized by deep and persistent inflationary pressures. **One** member underlined that inflation in Mexico has developed certain inertia which cannot be explained entirely by external pressures. **Thus, most members pointed out that core inflation, which reflects inflation's trend more accurately, still does not show a downward trend. In this context, they mentioned that the inflationary environment remains complex and uncertain.**

All members were concerned that core inflation continues at high levels and remains more persistent than expected. One member added that the inflation dynamics of merchandise and of services warns about the low sensitivity of core inflation to lesser external price pressures, given the easing of the effects of the pandemic and the military conflict in Ukraine. **Regarding core inflation's components, all members indicated that merchandise inflation**

remains high and that its decline has been gradual, especially that of food merchandise. Some members stated that this component could still be affected by the external shocks related to the pandemic and the military conflict. **One** member added that, although some of these shocks have partially reversed, international reference prices are still at high levels and register volatility. **Most members pointed out that the domestic prices of these goods seem to be facing asymmetric effects from the shocks, since the decline in pressures of international price references is not being passed on to the final consumer at the same rate as that observed with upward pressures. One** member noted that food merchandise inflation continues to be above 14% in annual terms, no longer as a result of external pressures only, but also of domestic pressures.

All members highlighted the rebound in services inflation in January. Some members mentioned that it was larger than expected. **One** member pointed out that this rebound was almost four times higher than the average registered between 2014 and 2022 for the month of January. **Another** member stated that this component registered a very significant annualized monthly variation when considering the seasonally adjusted series. **In addition, most members noted that the frequency of upward price revisions in services has been increasing. They also highlighted the increase in housing services inflation. One** member added that food services continue showing very high monthly price variations. He/she added that those of entertainment and health and personal care services also continue trending upwards. He/she specified that such components should not be affected by the external shocks. When analyzing the pressures being experienced by services, **another** member indicated that these have been subject to multiple shocks. He/she added that the increase in their prices suggests that external pressures may be taking longer to fade, while other domestic pressures may be becoming more apparent. In this regard, **one** member noted the accumulation of cost-related pressures associated with the adoption of measures to contain contagions, accompanied by those resulting from the setting of new contracts that take higher prices as a reference. **Some** members considered that the pass-through of costs to consumers is possibly higher now than in earlier stages of the pandemic. **In this regard, most members highlighted that, after the lockdown, the demand for services has increased. Some** members expressed concern about the behavior of services inflation indicating pressures from domestic factors. In particular, they stated that increases in services prices, since these are non-tradable, respond to domestic pressures.

Some members pointed out that non-core inflation reached 6.32%. **Some** members stated that the evolution of this component is what has contributed the most to the decline in headline inflation. They noted that both the agricultural and livestock products' and the energy products' subindices registered lower annual variations as compared to the previous year. **One** member underlined that, although agricultural and livestock products' inflation has declined relative to the levels observed in the third quarter of 2022, it still remains at high levels. **Some** members indicated that the non-core component was affected in January particularly by the behavior of fruit and vegetables' prices.

Most members pointed out that inflation expectations for 2023 and 2024 increased once again. One member stated that these differed considerably from Banco de México's December forecast. **Another** member highlighted that inflation expectations remain high in general. However, **one** member pointed out that those corresponding to the next 12 months have decreased slightly. **As for longer-term expectations, most members agreed that these declined somewhat, although they remain above target.** Thus, **one** member stated that long-term expectations have remained anchored. **Some** members mentioned that the referred decreases took place after the increases registered during previous months. **One** member stated that expectations drawn from market instruments have also decreased. **Another** member highlighted that the breakeven inflation rate remained above the upper limit of the variability interval set around the inflation target. **One** member pointed out that the downward revision in expectations, despite being favorable, is still insufficient to ensure the convergence of inflation to its target.

All members emphasized that, in view of a slower-than-anticipated disinflationary process, forecasts for headline and core inflation have been adjusted upwards for the entire horizon. They underlined that the persistence of core inflation suggests that, looking ahead, its trajectory, albeit downward, will be above the previously anticipated one. Most members underlined that said adjustment responds to the persistence of inflation and to higher-than-anticipated pressures on food merchandise and services' prices. One member argued that the mitigation of inflationary pressures at a global level is anticipated to result in a downward trend for inflation, although at a slower pace. **Some** members pointed out that the considerable revision of the inflation forecast required delaying convergence to the target by one quarter. **In this context, most members noted that inflation is anticipated to converge to the target in the fourth quarter of 2024.**

With respect to upward risks to inflation, all members mentioned the persistence of its core component at high levels. One member considered the current synchronization between the high levels of merchandise inflation and the increase in services' inflation to be a challenge. **Some** members warned about higher cost-related pressures. In this regard, **one** member expressed his/her concern about the increased labor costs. Specifically, he/she mentioned that the gap between the minimum wage and the average wage has narrowed, which is accompanied by higher costs of vacation benefits. He/she also indicated the transfer of cargo operations to the new airport as an additional source of risks of possible inflationary pressures.

All members underlined that the balance of risks for inflation remains biased to the upside. One member stated that this occurs even despite an environment of economic slowdown and of accumulated increases in the reference rate. **Another** member warned that the balance has deteriorated as a result of domestic pressures. He/she stated that this increases the fear that the return of inflation to its objective takes even longer than anticipated. Nevertheless, **one** member highlighted that, although the balance of risks remains biased to the upside, it has not deteriorated, considering the adjustment to the estimated inflation trajectory. **Another** member underlined the difficulty in determining the pace at which the shocks caused by the health emergency and by the military conflict will dissipate. He/she stated that this stage of disinflation is surrounded by greater uncertainty than what is usually observed during the inflation-reduction stages.

Macrofinancial environment

Most members agreed that domestic financial markets overall performed in an orderly manner. Some members noted that this was due to a greater risk appetite among international investors. **One** member highlighted that the Financial Conditions Index for Mexico decreased slightly. **Another** member underlined that the 5-year default risk premia for Mexico decreased by 20 basis points. **Most members mentioned that the stock market registered gains. Some** members noted that these were driven by the consumption and industrial sectors.

Most members underlined that, since the last monetary policy decision, the Mexican peso has appreciated against the US dollar, reaching its minimum level since March 2020. Some members pointed out that it traded in a narrow range. **One** member added that it exhibited healthy trading metrics and a considerable trading volume. He/she specified that it has remained within the lower range of the distribution implied by one-month options, which shows its stability and resilience. **Another** member underlined that the Mexican peso continued to stand out due to its strength among emerging economies' currencies. **Some** members mentioned that the wide spread of interest rates between Mexico and the United States adjusted by volatility has contributed to the positive performance of the national currency. **One** member added that the above has also been supported by Mexico's sound macroeconomic fundamentals relative to other emerging economies. However, **another** member noted that risk aversion has increased recently, generating exchange rate volatility. **One** member observed that it remains sensitive to global factors, especially to the dynamics of US financial assets.

Most members mentioned that short-term interest rates increased while medium- and long-term ones decreased. One member underlined that changes in short-term interest rates have reflected the adjustments in the reference rate implemented by Banco de México. **Some** members stated that the mixed behavior in interest rates resulted in a flattening of the yield curve. **One** member added that this has deepened the inversion of this curve to historical levels. **Another** member mentioned a reduction in the yield curve of real interest rate instruments.

Regarding financing to the private sector, **some** members mentioned that commercial bank credit continues expanding, reflecting the positive growth rates of performing loans to consumer and firms. **One** member added that mortgage lending also increased. He/she pointed out that this dynamism was observed despite the fact that interest rates in those segments have increased following the increments in the reference rate. He/she noted that, in line with Banco de México's EnBan survey, credit demand by large firms continued increasing during the fourth quarter of 2022. He/she stated that banks with the largest market share reported an increment in credit demand via credit cards, as well as for auto and personal loans. He/she added that less relaxed lending standards have been observed for some credit segments. He/she underlined that it is necessary to monitor the evolution of credit and financing conditions. **Another** member pointed out that delinquency rates remain at low and stable levels. Regarding the composition of savings' instruments held by the private sector, **one** member stated that monetary policy actions have had an impact, by increasing the holdings of longer-term instruments.

Monetary policy

The Governing Board evaluated the magnitude and diversity of the inflationary shocks and its determinants, along with the evolution of medium- and long-term inflation expectations and the price formation process. It considered the challenges stemming from the ongoing tightening of global financial conditions, the environment of uncertainty, the persistence of accumulated inflationary pressures and the possibility of greater effects on inflation, as well as the monetary policy stance already attained in this hiking cycle. In particular, it deemed that, given the dynamics of core inflation, on this occasion it is necessary to continue with the magnitude of the reference rate adjustment of the previous policy meeting, in order to be in a better position to tackle a still complex inflationary environment. Based on the above, and with the presence of all its members, the Board decided unanimously to raise the target for the overnight interbank interest rate by 50 basis points to 11.00%. With this action, the monetary policy stance adjusts to the trajectory required for inflation to converge to its 3% target within the forecast horizon.

The Board will thoroughly monitor inflationary pressures as well as all factors that have an incidence on the foreseen path for inflation and its expectations. This, in order to set a policy rate that is consistent at all times with both the orderly and sustained convergence of headline inflation to the 3% target within the time frame in which monetary policy operates as well as with an adequate adjustment of the economy and financial markets. Most members of the Board consider that, given the monetary policy stance already attained and depending on the evolution of incoming data, for the next policy meeting, the upward adjustment to the reference rate could be of lower magnitude.

One member pointed out that the described recent evolution of core inflation and its outlook are reasons for Banco de México to act even more cautiously. He/she underlined that upward risks related to the persistence of the core component at high levels and to cost-related pressures have become more evident. He/she expressed concern over the fact that the balance of risks for inflation remains biased to the upside. He/she stated that timely data confirms the complex nature of the inflationary outlook and considered that the disinflationary process will be, at the margin, more difficult than anticipated. He/she recalled that, given a complex outlook, in the previous monetary policy decision it was determined that for the following meeting an additional increase in the reference rate would be required. He/she argued that, although some elements of the economic and financial environment have performed as anticipated, given the unfavorable dynamics of inflation, especially of its core component, in this meeting, it is prudent to continue with the same pace of upward adjustments to the reference rate as in the previous meeting. He/she considered that this would allow to address the complex juncture and the associated upward risks in a timely manner. He/she added that it would also show Banco de México's firm commitment to fulfilling its primary mandate of price stability, and would prevent any perception of complacency. He/she noted that the ongoing disinflationary process is especially uncertain given the atypical nature of the several inflationary shocks that have been faced. He/she pointed out that, in this context, the available information and its assessment should be key in every monetary policy decision. He/she mentioned that the adopted actions have been timely, given the long-lasting and intense pressures that this central bank has been pointing out. For this reason, he/she reiterated that it has been possible to attain a restrictive monetary policy stance, just as the context warrants. He/she mentioned that, during the upcoming policy decisions, it will be necessary to consider the additional strengthening of the monetary policy stance that would be attained with the current proposed decision. He/she highlighted that, given the complex and uncertain inflationary outlook, this central bank needs to remain vigilant and persevere in its efforts to ensure the stability of the purchasing power of the national currency.

Another member underlined that monetary policy should be conducted in a firm and forceful manner, in order to prevent the inflationary process from becoming long-lasting and its painful effects on the economy, especially on lower-income households. He/she warned about the risk that inflation does not decline at a pace consistent with its convergence to the target in the planning horizon. He/she highlighted, as domestic inflationary pressures, consumption dynamics, the labor market tightening, and the high inflation expectations. He/she underlined the significant persistence of core inflation and concerns over the positive correlation between high inflation and its greater persistence. In this context, he/she argued that the proposed 50-basis point adjustment to the reference rate is necessary to achieve the convergence of inflation to the target in the forecast horizon. He/she added that it would send a clear signal of commitment to the constitutional mandate. He/she considered that it would also restate that Banco de México conducts monetary policy autonomously and that there is no coupling with the Federal Reserve's decisions. He/she added that, given the possibility that inflation decreases faster in the United States than in Mexico, the road ahead for Banco de México would be longer. Regarding the monetary policy statement, he/she added that it is necessary to highlight the deteriorated inflationary dynamics, especially the resistance of the core component to decline, the balance of risks to the upside, the upward revision in inflation forecasts, and the still high level of inflation expectations. In view of the high level of uncertainty, he/she highlighted the importance of being extremely cautious when communicating the forward guidance, considering that it does not represent a commitment. He/she suggested that it must indicate that, depending on the evolution of incoming data, further increases could be required. He/she added that it would be worth mentioning that a restrictive monetary policy stance will need to be maintained in the referred horizon to guarantee convergence to the target. He/she argued that the current monetary policy decision and the accompanying communication will be important for the formation of market expectations. He/she stated that the main monetary authorities at the global level, as well as Banco de México, should communicate more clearly that high inflation, above its targets, could be more persistent than previously anticipated. He/she pointed out that, in such a case, it would be necessary to maintain the tight monetary policy stances until inflation and its expectations show a sustained downward trend. He/she added that a clear and timely communication must contribute to adjust reference rate expectations. This, considering the unfounded optimism that prevails at the global level, including in Mexico, claiming it is possible to return to the inflation target with lower rates.

One member argued that, given the highly complex inflationary outlook, a recalibration of monetary astringency is required. He/she mentioned that the convergence of inflation to its target requires the core component to follow a sustained and decreasing trend, especially the food merchandise inflation. He/she pointed out that these prices are the main reference for the public to form their expectations. He/she noted that the synchronization of inflationary cycles between Mexico and the United States required similar adjustments in reference rates, but the inflation differential has now increased. He/she argued that a 50-basis point increase would indicate that the priority is to control inflation in Mexico, rather than maintaining an interest rate differential. He/she argued that, given the lesser weight of the relative stance, the adjustments to the rate differential will result in changes to the absolute stance. He/she stated that such stance must continue to be determined independently, without aiming for a specific level of the relative stance, while being careful that this last one does not reach an overly restrictive level. He/she noted that the change from global to domestic pressures justifies a restrictive monetary policy stance for longer than anticipated. He/she mentioned that the increase proposed in this decision would be unexpected, and that therefore it should be clearly justified. He/she considered that the absolute monetary policy stance, measured through the ex-ante real interest rate, can be characterized by seven stages of the current monetary cycle. He/she stated the first three stages were determined by the sequential increases of 25, 50 and 75 basis points in the reference rate, which consolidated a restrictive monetary policy stance. He/she mentioned that the fourth stage began in December 2022 with a gradual slowdown in the pace of upward adjustments and will end when the terminal interest rate level is eventually attained. He/she stated that its calibration is important, given that it would remain fixed for an extended period and would be subject to the evolution of incoming data. He/she indicated that a balance must be pursued between avoiding an early deceleration of the pace of reference rate increases without previously observing a significant improvement in the inflationary outlook and reaching a terminal rate that is higher than necessary. He/she mentioned that a fifth stage will begin when the terminal rate is achieved. He/she pointed out that during said stage the ex-ante real interest rate will increase as inflation expectations decrease. He/she added that, to prevent the monetary policy stance from becoming too restrictive, it will be necessary to proceed to the sixth stage. He/she explained that, during said stage, the reference rate must begin declining alongside inflation expectations, in order to maintain an ex-ante real interest rate above 6%, but without exceeding 7%. He/she expressed that during the last stage a neutral monetary policy stance would be adopted, once the inflation target is reached. He/she underlined the importance of forward guidance throughout these stages. He/she indicated that it should be highlighted that the forward guidance is data-dependent and that it does not represent an unwavering commitment. He/she added that it should be communicated that the central bank is currently close to reaching the terminal rate, but highlighting that the restrictive monetary policy stance will not yield until commitment with the primary mandate is fulfilled.

Another member pointed out that the most recent data on inflation and to a greater extent, their incidence in the expected determinants, defy the anticipated convergence and represent a clear signal that the balance of risks remains biased upwards. He/she found it worrisome that the observed decline in inflation of some merchandise has been characterized by being very gradual, due to the fact that there is an asymmetric and lagged passthrough between inflationary global pressures and the final consumer prices in the economy, specially within the set of food merchandises. He/she mentioned that this occurs in parallel to a deterioration of the inflation of non-tradeable goods in the economy, and thus a failure to act preemptively in view of the abovementioned signals, there would be a synchronization of pressures which would imply relevant challenges for the behavior of core inflation during the second half of the year. He/she considered that, given the significant adjustments in inflation forecasts, which required even the postponement by one quarter of the point-wise convergence to the target, currently it is not feasible to lower the pace of interest rate increases. He/she recalled that, in an inflation forecast-targeting regime, the monetary policy stance must be consistent with the behavior of the expected inflation determinants, and thus strengthening the restrictive monetary policy will consolidate a stance consistent with inflation convergence. However, he/she considered that, given the significant adjustment to the forecasts, the proposed increase in the interest rate, and the notably restrictive level attained by the ex-ante real interest rate, the balance of risks for inflation will be compatible with a slower pace of adjustments in future monetary policy decisions. He/she stated that Banco de México has made unprecedented efforts to consolidate an absolute policy stance that allows to guarantee the convergence of inflation within the forecast horizon, regardless of the relative policy stance. He/she pointed out that, looking ahead, decisions must remain flexible, dependent on incoming data and on the evolution of the balance of risks, in order to maintain at all times congruence with fulfilling the constitutional mandate.

One member stated that the inflationary outlook continues posing challenges and considered that it is still not appropriate to slow the pace of interest rate increases. First of all, he/she pointed out that the materialization of the new inflation forecast requires a reference rate that addresses the higher persistence of the core component. He/she highlighted that it would send a clear signal regarding the commitment to the primary mandate, which would contribute to preserve credibility. He/she added that this is also relevant for the effectiveness of the inflation forecast-targeting regime. Second, he/she mentioned that inflation expectations are still negatively affected, although some have decreased at the margin. He/she noted that the proposed decision seeks to contribute to the reduction of inflation expectations and to preserve the effectiveness of this transmission channel. He/she highlighted that the reduction in 12-month expectations elevates the ex-ante real interest rate, making the increases in the reference rate more effective. He/she added that monetary policy actions should continue contributing to expectations returning to their historic levels. Third, he/she indicated that the high levels of inflation could result in more persistence. He/she mentioned that the proposed increase seeks to address this risk and prevent second-round effects, the future costs of which will probably be greater if no timely action is taken. Finally, he/she considered that an uncertain environment persists, despite the fact that certain pressures have been mitigated. He/she added that the convergence of inflation to its target faces considerable challenges. He/she stated that, although the monetary policy stance is already restrictive, it needs to be reinforced to consolidate the convergence of inflation to its target. He/she considered that, for the next decisions, it is necessary to take into account the tightening that has been achieved and the fact that monetary policy operates with a lag. He/she pointed out that, the degree of monetary restriction already attained could increase if inflation expectations decline. He/she argued that, looking ahead, the pace of adjustments of the reference rate could be modified, and that it is very close to reaching a level that is appropriate to consolidate a disinflationary process in line with the inflation forecast.

3. MONETARY POLICY DECISION

The Governing Board evaluated the magnitude and diversity of the inflationary shocks and its determinants, along with the evolution of medium- and long-term inflation expectations and the price formation process. It considered the challenges stemming from the ongoing tightening of global financial conditions, the environment of uncertainty, the persistence of accumulated inflationary pressures and the possibility of greater effects on inflation, as well as the monetary policy stance already attained in this hiking cycle. In particular, it deemed that, given the dynamics of core inflation, on this occasion it is necessary to continue with the magnitude of the reference rate adjustment of the previous policy meeting, in order to be in a better position to tackle a still complex inflation environment. Based on the above, and with the presence of all its members, the Board decided unanimously to raise the target for the overnight interbank interest rate by 50 basis points to 11.00%. With this action, the monetary policy stance adjusts to the trajectory required for inflation to converge to its 3% target within the forecast horizon.

The Board will thoroughly monitor inflationary pressures as well as all factors that have an incidence on the foreseen path for inflation and its expectations. This, in order to set a policy rate that is consistent at all times with both the orderly and sustained convergence of headline inflation to the 3% target within the time frame in which monetary policy operates as well as with an adequate adjustment of the economy and financial markets. The Board considers that, given the monetary policy stance already attained and depending on the evolution of incoming data, for its next policy meeting, the upward adjustment to the reference rate could be of lower magnitude.

4. VOTING

Victoria Rodríguez, Galia Borja, Irene Espinosa, Jonathan Heath, and Omar Mejía voted in favor of increasing the target for the overnight interbank interest rate by 50 basis points to 11.00%.

5. DISSENTING OPINIONS / VOTES

Dissenting opinion on the monetary policy statement. Irene Espinosa.

Domestic price dynamics has become more complex and uncertain. Inflationary pressures have not given in as we had anticipated in December, and we adjusted our forecast with a balance of risks to the upside. In view of inflation's negative surprise to the upside in January, the lower increase in the reference rate adjustment that we foresaw in December for today's decision was insufficient. This situation reflects the high uncertainty surrounding the new dynamics of inflation, which shows a greater persistence and greater domestic pressures, as external ones have started to subside. We must therefore be extremely cautious with our forward guidance. It must be credible and feasible, without putting the central bank's reputation at risk and without undermining the effectiveness of communication with markets. This gains special relevance given the discrepancy between the monetary authorities' messages of maintaining a restrictive policy stance for an extended period, and more accommodative market expectations. For this reason, our guide must indicate that the road towards consolidating the convergence of inflation to the target continues and, thus, limiting the next decision by referring to a policy rate adjustment of lower magnitude implies a high and costly risk of correction if the assumptions do not materialize.

ANNEX

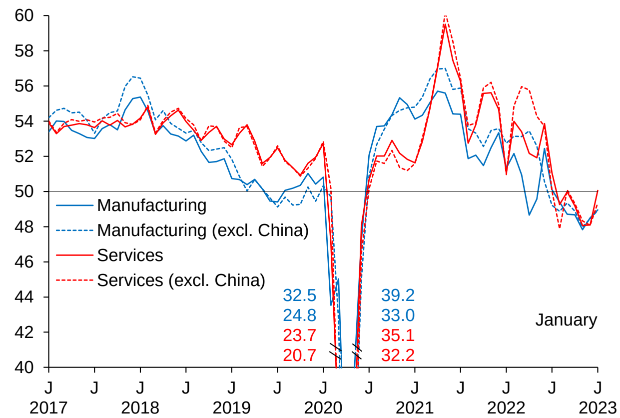
The information in this Annex was prepared for this meeting by the staff of Banco de México's Directorate General of Economic Research and Directorate General of Central Bank Operations. It does not necessarily reflect the considerations of the members of the Governing Board as to the monetary policy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

A.1. External conditions

A.1.1. World economic activity

World economic activity growth moderated during the fourth quarter of 2022 relative to the previous quarter. Heterogeneity continued to be observed among different economies. Persistent economic disruptions in different regions and sectors due to the military conflict between Russia and Ukraine and the resurgence of COVID-19 in China contributed to this moderation. These developments took place in an environment of tight financial and monetary conditions, associated with an increase in interest rates by central banks to contain the high levels of inflation. In addition, the latest Purchasing Managers' Index readings reflected a slower pace of deterioration in the manufacturing sector and some stabilization in services at the global level (Chart 1). Among the most important risks to the global economy are those associated with the pandemic, prolonged or increased inflationary pressures, worsening geopolitical tensions, and tighter financial and monetary conditions.

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

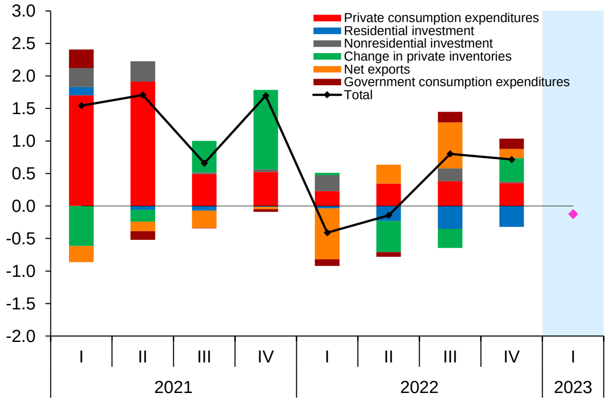


s.a./ Seasonally adjusted figures.
1/ The index varies between 0 and 100 points. A reading above 50 points is considered an overall increase compared to the previous month and below 50 points an overall decrease.
Source: IHS Market.

In the United States, Gross Domestic Product (GDP) grew at a seasonally adjusted quarterly rate of 0.7% during the fourth quarter, slightly below the 0.8% registered in the third quarter of the year (Chart 2).[1] Economic activity was supported by higher inventory accumulation and private consumption. The latter was driven by the strength of the labor market and by the use of savings accumulated during the pandemic. However, recent indicators suggest that consumption has been losing dynamism partly as a result of the continued tightening of financial conditions. Government spending and net exports also contributed to GDP growth, although to a lesser extent. This was partially offset by the deterioration in residential investment. Some analysts' surveys anticipate a weakening of economic activity during the first quarter of 2023.

[1] Expressed as a seasonally adjusted annualized quarterly rate, the change in US GDP in the fourth quarter of 2022 was 2.9% and 3.2% in the third quarter of 2022.

Chart 2
US Real GDP and Components
Quarterly percentage rate and contribution in percentage points, s. a.



s.a./ Seasonally adjusted figures.
Note: The pink diamond refers to Blue Chip's January 2022 forecasts.
Source: BEA and Blue Chip.

After registering a null variation in October, US industrial production contracted at an average rate of 0.7% in November and December. This fall reflected a decline in manufacturing and mining, which was partially mitigated by a rebound in electricity and gas generation. Purchasing Managers' Indices suggest that manufacturing will continue to show weakness, in an environment of a slowdown in domestic and external demand.

The US labor market continued showing signs of tightening. The non-farm payroll registered the creation of 517,000 new jobs in January 2023, figure higher than the 275,000 jobs created on average per month during November and December 2022. The unemployment rate went from 3.6% in November 2022 to 3.4% in January 2023. Initial claims for unemployment insurance decreased to 183 thousand claims during the week ending January 28. In this environment, certain wage indicators, while showing signs of deceleration, continued growing at a high rate.

In the euro area, economic activity decelerated during the fourth quarter of 2022 with respect to the previous one. In particular, it expanded 0.1% at a seasonally adjusted quarterly rate, after having grown 0.3% in the third quarter.[2] This moderation was due to the effects of the military conflict in Ukraine on energy supplies, the high levels of uncertainty, the weakening of external demand, and tightening financial conditions. Unemployment, however, remained stable at 6.6% in December. Purchasing Managers' Indices point to a lesser deterioration in manufacturing activity than previously expected and to a slight recovery in services in the short term.

In most major emerging economies, economic activity is foreseen to have slowed or contracted during the fourth quarter of 2022. In Emerging Asia, a moderation in economic activity is expected in a large number of economies. In the particular case of China, economic activity slowed during the fourth quarter due to the increase in COVID-19 infections and the continued deterioration of the country's real estate sector. Nevertheless, said economy is expected to recover in the first quarter of 2023. This would be driven by the lifting of mobility restrictions that began at the end of last year, although uncertainty prevails about the effects of the pandemic in the future. In most Emerging European and Latin American economies, activity is expected to have deteriorated during the last quarter of 2022.

International commodity prices have registered a mixed behavior with episodes of volatility since Mexico's previous monetary policy decision. During this period, oil prices exhibited bouts of volatility. Although there was a significant fall in crude oil prices at the beginning of January related to the increase in COVID-19 cases in China, this trend was subsequently reversed due to the easing of restrictions and greater optimism regarding a possible recovery in fuel demand in that country. At the beginning of February, prices registered some volatility associated with changes in expectations regarding the future evolution of interest rates by the main central banks and their effect on demand. Meanwhile, natural gas reference prices in Europe and the United States showed, in general, a downward trend during most of the period, supported by relatively high levels of inventories. However, they exhibited volatility associated with fluctuations in weather conditions in both regions. Grain prices remained relatively stable. Factors such as the evolution of the pandemic in China and weather conditions in several countries caused prices to fluctuate within a narrow range during the period. Finally, most industrial metal prices trended upwards, with the price increase observed since the second week of January as a result of the optimism surrounding the economic recovery in China standing out.

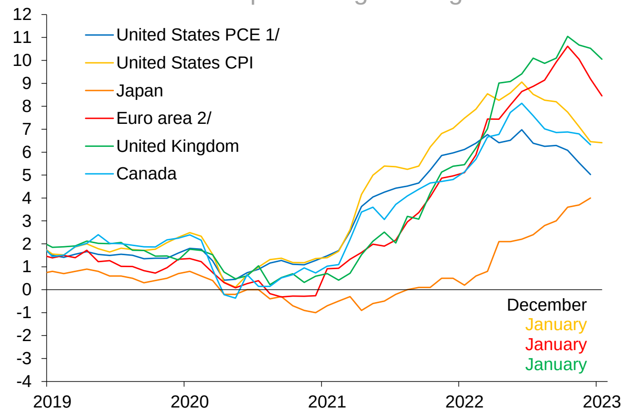
[2] Expressed as a seasonally adjusted annualized quarterly rate, the change in euro area GDP was 0.5% in the fourth quarter of 2022 and 1.2% in the third quarter of 2022.

A.1.2. Monetary policy and international financial markets

World inflation remains high, although in its latest readings headline inflation declined in a large number of economies, both advanced (Chart 3) and emerging, due to lower pressures on energy prices and, in some cases, on food prices. However, headline inflation remains significantly above their central banks' targets. Imbalances between supply and demand have moderated recently in some markets, in an environment of diminished disruptions in supply chains. However, in several cases, the core component does not show a downward inflection point.

In the United States, annual headline inflation as measured by the personal consumption expenditure deflator declined from 5.5 in November to 5.0% in December, its lowest level since September 2021. This reflected a fall in energy prices and core inflation. The annual variation of the latter went from 4.7 to 4.4% between the referred dates, mainly as a result of a lower inflation in merchandise prices. Analysts' short-term inflation forecasts for most of the main advanced economies remained at high levels, although they foresee a moderation in inflation in 2023 with respect to the levels registered in 2022. Meanwhile, longer-term inflation expectations drawn from financial instruments for these economies exhibited limited adjustments.

Chart 3
Selected Advanced Economies: Headline Inflation
Annual percentage change



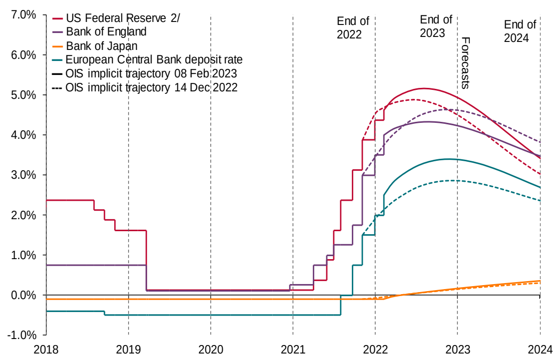
1/ The personal consumption expenditure deflator is used.
2/ Preliminary figures for January.
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Eurostat, Bank of Japan, Statistics Canada, The UK Office for National Statistics.

In the environment described above, since the last monetary policy decision in Mexico, the central banks of most main advanced economies continued tightening their monetary policy stances. However, most of these banks moderated the magnitude of the increases compared to those announced in previous decisions, including the US Federal Reserve and the European Central Bank. Looking ahead, additional increases are expected. Some central banks pointed to a possible pause in their hiking cycles, although they are expected to keep their interest rates at high levels for an extended period. In particular, after raising its reference rate in January, the Bank of Canada indicated that it expects to keep it at its current level and is prepared to raise it if necessary. The Bank of England eliminated the explicit mention of the possibility that further rate increases would be required and that, in light of persistent inflationary pressures, it would take forceful measures, although it stated that, if necessary, it would push for further monetary tightening. In its January decision, the Bank of Japan left its short- and long-term interest rates unchanged. In addition, in December, it announced adjustments to its yield curve control mechanism.[3] Regarding their asset purchase programs, most central banks in advanced

[3] In December, the Bank of Japan adjusted the yield curve control mechanism with the aim of improving market functioning and encouraging a smoother formation of the entire curve, while maintaining accommodative financial conditions. Said central bank increased the amount of monthly purchases of Japanese government bonds (*JGB*) from ¥7.3 trillion to ¥9 trillion. It also widened the range of 10-year bond yield fluctuations from the target level, from around +/- 0.25 percentage points to around +/- 0.50 percentage points. It also announced that it would offer to purchase 10-year JGBs at 0.5% each business day through fixed-rate purchase operations, unless it is very likely that no offers are submitted. In order to encourage the formation of a yield curve consistent with the guidelines for its short- and long-term interest rates, the Bank of Japan decided that it will respond rapidly for each maturity with increases in its JGB purchases and fixed-rate purchases. In its January decision, it reiterated the aforementioned measures and announced adjustments to various funding facilities.

economies continued to gradually reduce their securities' holdings. In this environment, expectations drawn from financial instruments anticipate interest rates to remain high for an extended period in most major advanced economies, although they suggest that in some cases these could begin to decline in the second half of 2023 or in 2024 (Chart 4). This contrasts with the rhetoric of some central banks that have mentioned that a restrictive policy stance will be necessary for some time, until there is confidence that inflation is on a clear downward trajectory.

Chart 4
Reference Rates and Trajectories Implied in OIS Curves [1/]
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 (4.50% - 4.75%) is used.
Source: Banco de México with data from Bloomberg.

Among the recent monetary policy decisions of major advanced economies, the following stand out:

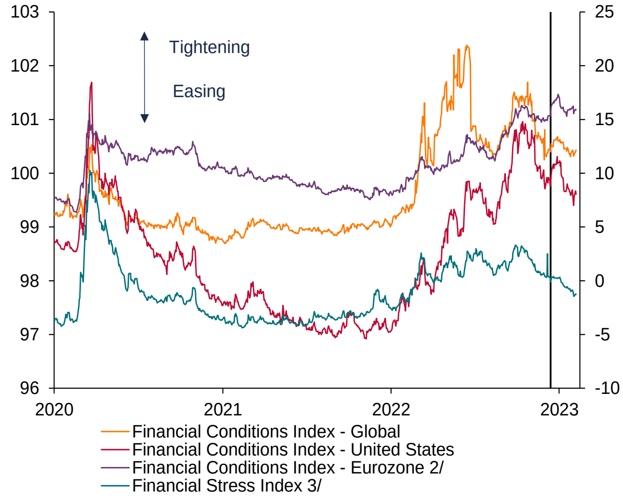
i) The US Federal Reserve slowed its interest rate hikes from 50 bps in December to 25 bps in February. Thus, in its latest decision, it set the target range for the federal funds rate between 4.50 and 4.75%. In addition, the Federal Open Market Committee (FOMC) stated again that it anticipates that ongoing increases in the target range will be appropriate. It indicated that, in determining the pace of future increases in the target range, it will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, as well as the economic and financial developments. During a press conference, the chairman of that institution suggested that a couple of more increases in the reference rate will be appropriate in order to attain a sufficiently restrictive level. He added that restoring price stability will likely require maintaining a tight monetary policy stance for some time. He further added that while the monthly decline in inflation in recent months is welcome, substantially more evidence is needed to be confident that inflation is on a sustained downward path. He maintained that the Committee will continue to make decisions meeting by meeting, that is, without providing specific guidance, considering the totality of incoming data and their implications for the outlook for economic activity and inflation. Regarding its balance sheet, the Federal Reserve reiterated that it will continue to reduce its securities' holdings according to its previously announced plans. In this context, the expected trajectory for the federal funds rate implicit in financial instruments foresees that the highest level of the interest rate in 2023 will be reached during the second quarter and will be of around 5.15%, to subsequently decrease to 4.8% by the end of 2023 and to 3.4% by the end of 2024. This contrasts with the FOMC's December forecasts, which indicate that the federal funds rate will remain at higher levels for a longer period, anticipating a level of 5.1% at the end of 2023 and of 4.1% at the end of 2024.

ii) The European Central Bank (ECB) increased its reference rates in the meetings held during the reported period. However, it slowed the pace of its interest rate increases to 50 bps at both its December and February meetings, after having raised them by 75 bps at its October meeting. In its latest decision, it thus set its refinancing, key lending and key deposit rates at 3.00, 3.25 and 2.50%, respectively. In December and February, it stated that the Governing Council expects to further increase interest rates at a steady pace and that it will keep them at sufficiently restrictive levels to ensure a timely return of inflation to the 2% target. In this regard, the Governing Council announced in February that it intends to raise reference rates by another 50 bps at its March meeting and will then evaluate the subsequent path of its monetary policy. Regarding the normalization of its securities' holdings, it announced in December that starting in March it will begin reducing its Asset Purchase Program (APP) portfolio at a measured and predictable pace, given that not all principal payments on maturing securities will be reinvested. It stated that the reduction will be of €15 billion per month, on average, until the end of June 2023, and that its subsequent pace of reduction will be determined over time. However, it added that it will periodically reassess the pace of portfolio reduction. The details on the implementation of the portfolio reduction were announced at its February meeting.

In the main emerging economies, a large number of central banks continued raising their reference rates. However, some central banks, such as those of Colombia and South Africa, slowed the pace of interest rate hikes. Others, such as those of Hungary, the Czech Republic, Poland, Ukraine, Turkey, Malaysia, Chile and Brazil, left their interest rates unchanged. Some suggested that they will maintain their interest rates at current levels for an extended period and that they are ready to raise them if necessary. China's central bank left its interest rates unchanged.

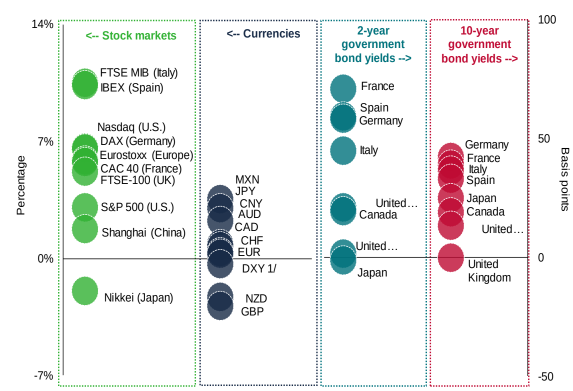
In the context described above, since the last monetary policy decision in Mexico, international financial markets registered a greater appetite for risk and financial conditions eased, although they still remain tight (Chart 5). In particular, stock markets in most of the major advanced and emerging economies continued registering gains (Chart 6). In foreign exchange markets, the US dollar depreciated during most of the period, although it slightly recovered at the end of the period, which can be associated with the statements made by the Federal Reserve members, who anticipate higher interest rates in light of the continued strength of the labor market. This occurred in an environment in which the pace of increases in the US reference rate has moderated slightly and in which the end of its hiking cycle is expected to be nearer than that of other economies. Short- and long-term government bond interest rates in most of the main advanced economies registered volatility during the period. However, they rose recently due to the latest US employment situation report, which continues to show strength in the labor market. In most cases, interest rates are above the level observed in mid-December (Chart 7). In emerging economies, most long-term interest rates declined, while short-term interest rates registered mixed results. In this context, in general, capital inflows were registered in emerging economies.

Chart 5
Financial Conditions Index[1/]
Units



1/ The financial conditions index is constructed considering the effect of five variables on economic activity: the reference interest rate, the 10-year government bond, the spread of investment-grade bonds over the government debt bond with equivalent maturity, the ratio of a stock index with 10-year average earnings per share, and the trade-weighted exchange rate. 2/In the case of the euro area, the spread between the sovereign bonds of France, Italy, Spain, the Netherlands, Belgium, Austria, Portugal and Finland over the German 10-year bond is also considered. 3/ Data from the Office of Financial Research, constructed with 33 financial variables from five categories: credit, equity valuation, financing, safe haven assets, and volatility. The vertical black line indicates the last calendarized monetary policy meeting of Banco de México.
Source: Prepared by Banco de México with data from Bloomberg and Goldman Sachs.

Chart 6
Change in Selected Financial Indicators from December 14, 2022 to February 8, 2023
Percent; basis points



1/ 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%
Source: Bloomberg and ICE.

Chart 7
Selected Emerging Economies: Financial Assets Performance as of December 9, 2022
Percent, basis points

Region	Country	Currencies	Equity markets	2-year interest rates	2-year Interest rates	CDS
Latin America	Mexico	5.29%	6.75%	-17	-51	-23
	Brazil	3.24%	2.44%	-9	12	-23
	Chile	9.72%	1.96%	85	19	-17
	Colombia	3.86%	1.93%	-34	-93	-20
	Peru	0.60%	1.09%	108	6	0
Emerging Europe	Russia	-12.79%	3.24%	119	-70	N.D.
	Poland	3.46%	10.23%	-102	-81	-21
	Turkey	-0.91%	-2.40%	8	-64	0
	Czech Rep.	5.90%	15.50%	32	-20	-10
	Hungary	11.06%	2.54%	-139	-144	-25
Asia	China	3.17%	1.76%	9	-2	-25
	Malaysia	3.30%	0.90%	-25	-30	-18
	India	0.53%	-2.15%	-2	-2	-17
	Philippines	3.07%	6.80%	0	-10	-19
	Thailand	5.30%	4.02%	3	-18	-14
	Indonesia	4.43%	2.93%	12	-39	-23
Africa	South Africa	1.24%	7.46%	29	-79	-24

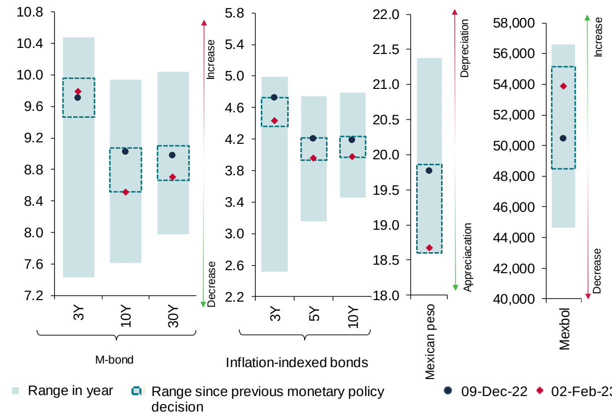
Note: An upward adjustment indicates currency appreciation. Interest rates correspond to swap rates at the specified terms, except for Hungary, where government securities with 3-year maturities were used as a reference. For the Philippines, a 2-year swap rate was used, and for Russia, a 2-year and 3-year swap rate was used. The latest CDS data for Russia is as of June 1, 2022.
Source: Bloomberg.

A.2. Current situation of the Mexican economy

A.2.1. Mexican markets

In the international context described above, the Mexican peso appreciated since Mexico's previous monetary policy decision (Chart 8), while interest rates registered a mixed behavior, with increases in short-term maturities and decreases in long-term ones, which led to a greater inversion of the yield curve. This occurred in an environment of renewed interest in holding assets of emerging economies, due to factors such as the reopening of several economic sectors in China and expectations of a lower monetary tightening by the Federal Reserve.

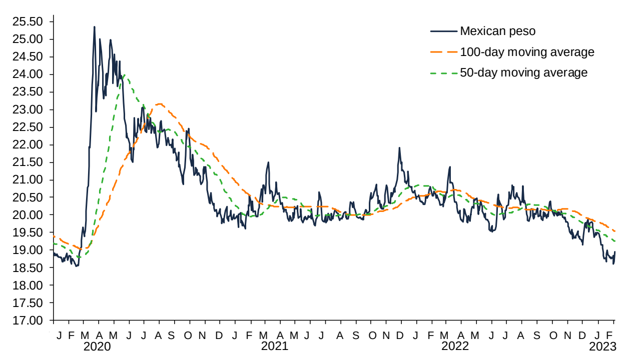
Chart 8
Mexican Markets' Performance
Percent, MXN/USD and index



Source: Prepared by Banco de México.

The Mexican peso traded in a range of 1 peso and 35 cents, between 18.51 and 19.86 pesos per US dollar (Chart 9), reaching its lowest level since March 2020 and ending the reference period with an appreciation of 5.29%. The above occurred in a context in which trading conditions, both observed and prospective, continued improving.

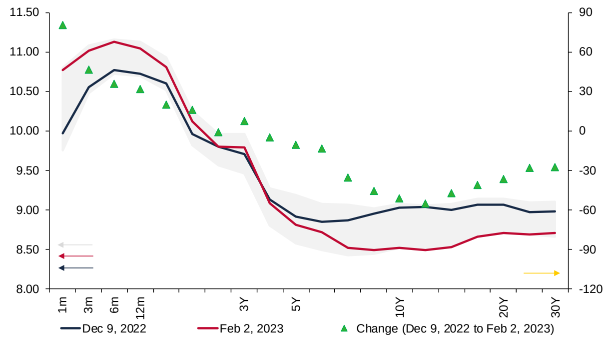
Chart 9
Mexican Peso Exchange Rate including Moving Averages
MXN/USD



Source: Prepared by Banco de México.

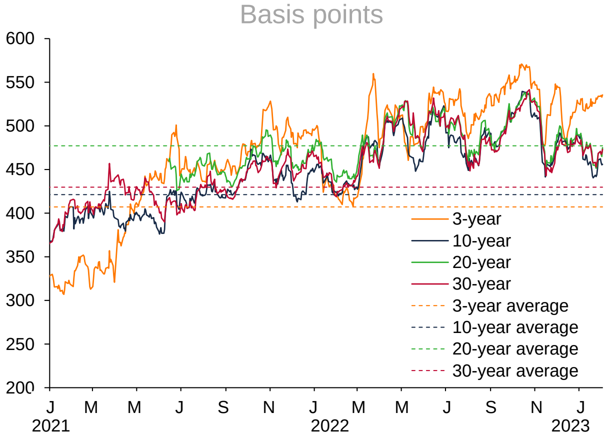
Interest rates on government securities showed mixed dynamics characterized by a flattening, with increases of up to 20 bps in the short-term nodes, while longer-term nodes decreased up to 55 bps (Chart 10). The yield curve of real interest rate instruments decreased by up to 29 bps. In this context, breakeven inflation implicit in spreads between nominal and real interest rates of market instruments registered movements between -26 and 37 bps (Chart 11). These movements took place in an environment in which trading conditions showed some stability, but remained below the levels observed prior to the onset of the pandemic.

Chart 10
Nominal Yield Curve of Government Securities
Percent, basis points



Source: PIP.

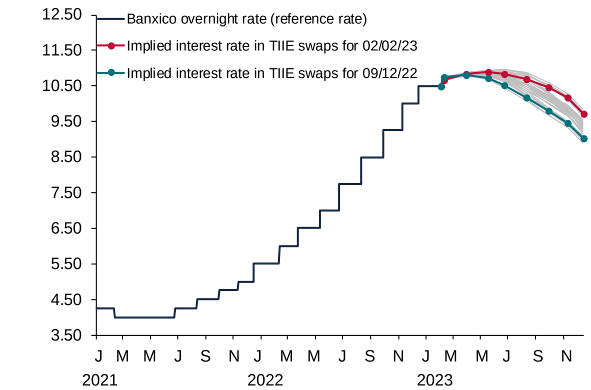
Chart 11
Breakeven Inflation and Inflation Risk Implied in Government Securities' Yields
Basis points



Source: PIP.

Regarding expectations for the path of the monetary policy reference rate, information implicit in the interest rate swaps' curve incorporates an increase of 17 bps for the February decision (Chart 12). Most analysts surveyed by Citibanamex anticipate that the reference rate will be raised by 25 bps in the February decision, up to a level of 10.75%, while for the end of 2023 they anticipate, on average, a rate of 10.50%.

Chart 12
Interbank Funding Rate Implied in TIIE Swaps
Percent

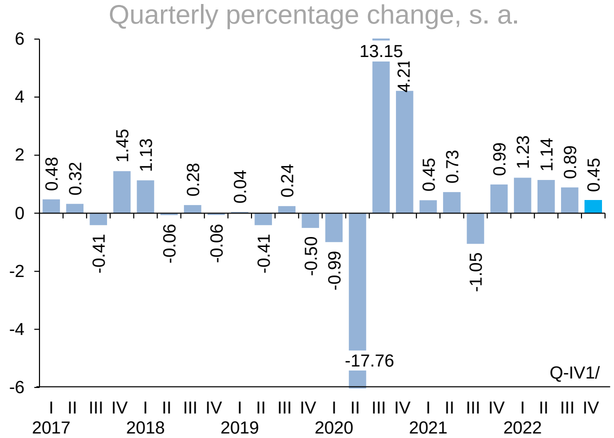


Source: Prepared by Banco de México with Bloomberg data.

A.2.2. Economic activity in Mexico

According to Mexico's GDP flash estimate published by INEGI, the Mexican economy continued growing during the fourth quarter of 2022 (Chart 13), although at a slightly slower pace than in the three previous quarters. The Mexican economy is expected to continue facing a complex global economic environment and high uncertainty that is anticipated to lead to a low dynamism of domestic activity over the next quarters.

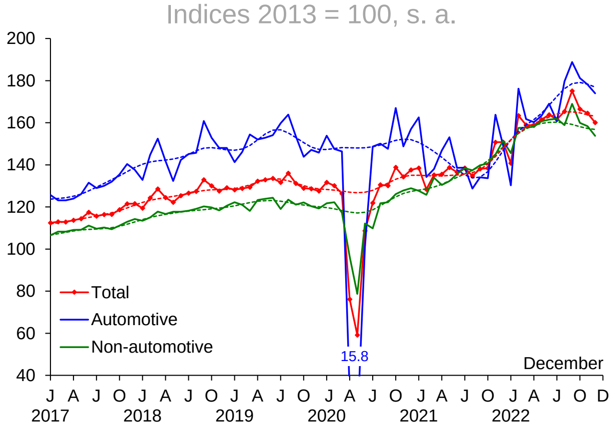
Chart 13
Gross Domestic Product
Quarterly percentage change, s. a.



s. a. / Seasonally adjusted figures. The chart's range was adjusted to facilitate its reading.
1/ Figure for the fourth quarter of 2022 refers to INEGI's GDP quarterly flash estimate.
Source: Mexico's System on National Accounts (SCNM, for its Spanish acronym), INEGI.

Regarding external demand, the value of manufacturing exports contracted during the fourth quarter of 2022, with respect to the third one. In particular, both automotive and non-automotive exports exhibited weakness at the end of 2022 (Chart 14). As for domestic demand, in November private consumption halted the moderate recovery observed in previous months, reflecting declines in the consumption of both goods and services. Gross fixed investment has displayed higher levels in recent months, although it stagnated in November. Within it, investment in construction showed an incipient reactivation during the same month, while investment in machinery and equipment exhibited weakness.

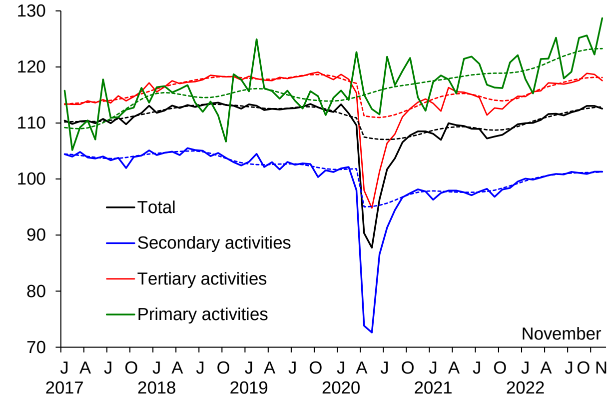
Chart 14
Total Manufacturing Exports
Indices 2013 = 100, s. a.



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. The chart's range was adjusted to facilitate its reading.
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.

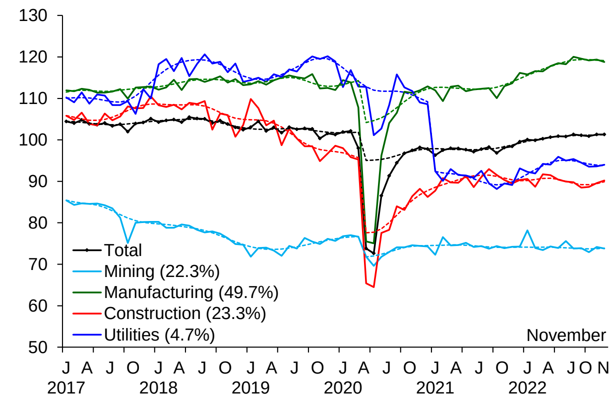
On the production side, in November, tertiary activities decreased for the second consecutive month, reversing the growth registered in September (Chart 15). The decrease occurred relatively across all sectors. Industrial activity continued showing weakness, mainly due to the slowdown in manufacturing (Chart 16). In contrast, construction showed a certain reactivation.

Chart 15
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.
Source: Mexico's System of National Accounts (SCNM, for its Spanish acronym), INEGI.

Chart 16
Industrial Activity 1/
Indices 2013 = 100, s. a.

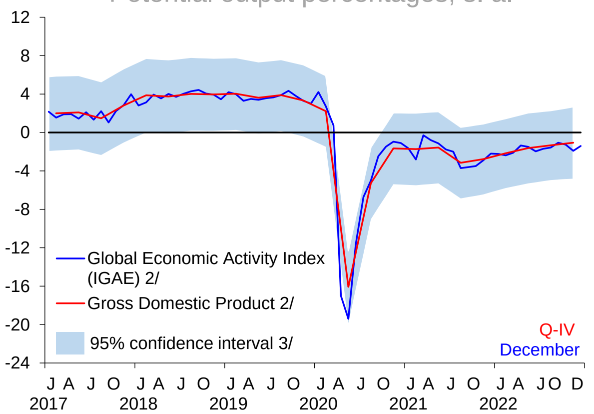


s. a. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line.
1/ Figures in parenthesis correspond to their share in the total in 2013.
Source: Mexico's System of National Accounts (SCNM, for its Spanish acronym), INEGI.

Based on timely information, the negative output gap continued decreasing gradually during the fourth quarter of 2022 (Chart 17). At the end of 2022, both national and urban unemployment rates remained at relatively low levels (Chart 18). Based on seasonally adjusted figures, IMSS-insured jobs continued trending upwards at the beginning of 2023. Finally, in November, unit labor costs in the manufacturing sector partly reversed the decline observed in the previous month (Chart 19).

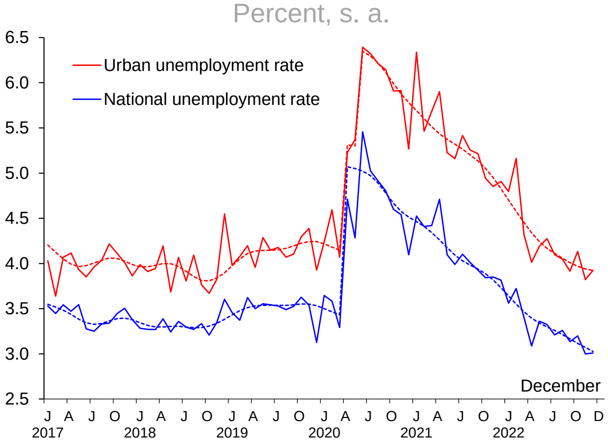
In December 2022, domestic financing to firms registered a positive real annual variation for the sixth consecutive month. Bank credit to firms continued recovering gradually, showing a positive real annual variation for the eighth consecutive month. This occurred in a context in which demand for corporate credit continued recovering and lending conditions remained tight compared to those prevailing at the beginning of the pandemic. These conditions, however, have been easing for smaller firms since the second half of 2021. Net corporate debt issuance in the domestic market increased significantly during the fourth quarter of 2022, in contrast with the negative flows observed during the first half of that year.

Chart 17
Output Gap Estimates 1/
Potential output percentages, s. a.



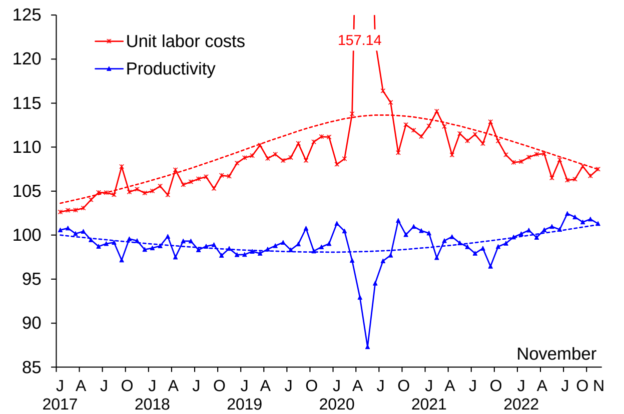
s. a. / Calculations based on seasonally adjusted figures.
1/ Output gap estimated with a tail-corrected Hodrick-Prescott filter; see Banco de México (2009), "Inflation Report, April-June 2009", p.74.
2/ GDP figures up to 4-2022 and IGAE implicit up to December 2022, consistent with said timely figure.
3/ Output gap confidence interval calculated with a method of unobserved components.
Source: Prepared by Banco de México with INEGI data.

Chart 18
National and Urban Unemployment Rates
Percent, s. a.



s. a. / Seasonally adjusted 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 (ENOE[N]) from July to date.

Chart 19
Productivity and Unit Labor Costs in the Manufacturing Sector 1/
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 Banco de México 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.

As for credit to households, commercial bank housing portfolio kept growing. Banking consumer credit continued expanding in real annual terms as a result of the dynamism of payroll credit and credit cards loans, while the personal loan portfolio has moderated its pace of growth. This has taken place in a context in which household demand for credit overall has continued to increase. Mortgage lending and consumer credit conditions remained relatively stable during the fourth quarter of 2022.

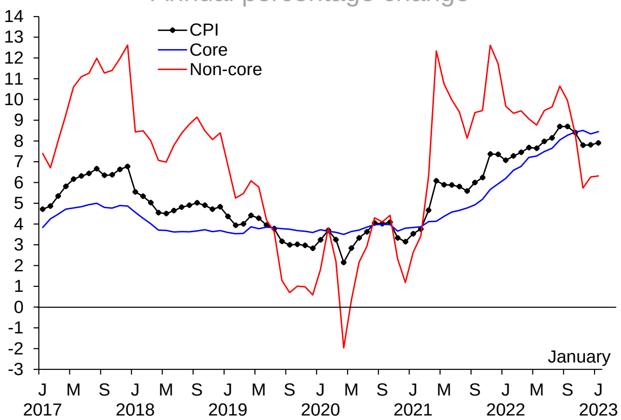
In December 2022, interest rates on bank credit to firms increased, consistent with the behavior of the reference rate, reaching levels above those observed at the end of 2019. Corporate credit intermediation margins remained at levels below those of February 2020, although they increased slightly in December 2022. Interest rates on mortgages have increased since July 2022, after having remained at levels around their historical lows since August 2020. In July-August 2022, credit card interest rates increased with respect to the previous bimester, while those of payroll loans registered similar levels.

As for portfolio quality, in December 2022 corporate and housing loan delinquency rates decreased with respect to those observed in the previous month and continued at low levels. Finally, consumer portfolio delinquency rates increased, although they remained at levels lower than those observed prior to the onset of the pandemic.

A.2.3. Development of inflation and inflation outlook

Between November 2022 and January 2023, annual headline inflation increased from 7.80 to 7.91% (Chart 20 and Table 1). This result is explained by the increase in non-core inflation during this period. Core inflation remained at high levels and, although it interrupted its upward trend, it still does not show a downward trajectory.

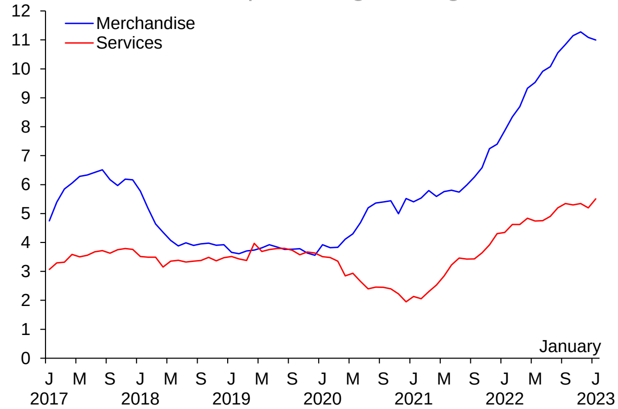
Chart 20
Consumer Price Index
Annual percentage change



Source: Banco de México and INEGI.

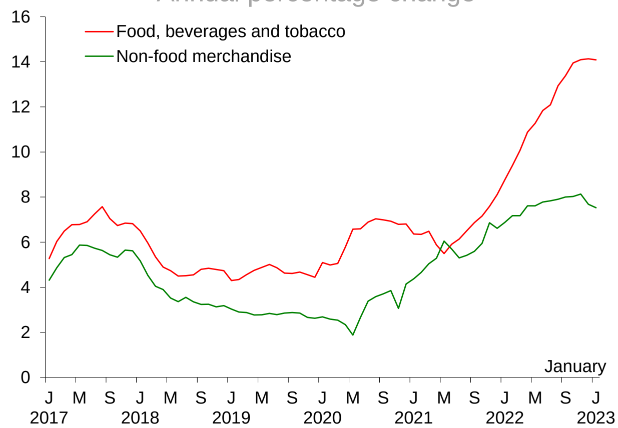
Between November 2022 and January 2023, annual core inflation declined from 8.51 to 8.45%. Annual merchandise inflation decreased from 11.28 to 11.00% during the same period (Chart 21). Within it, food merchandise prices, which had been increasing since mid-2021, remained relatively stable, at high levels of 14.09 and 14.08% in the same months, while non-food merchandise prices decreased from 8.13 to 7.53% (Chart 22). Annual services inflation rose from 5.35 to 5.51% during the same period. The prices of this component continued to be affected by higher input prices, in a context where the demand for services has recovered. In the same months, the annual variation of services other than education and housing registered levels of 7.45 and 7.53%, with the high inflation of food services standing out, while housing inflation rose from 3.11 to 3.38%.

Chart 21
Merchandise and Services Core Price Sub-index
Annual percentage change



Source: Banco de México and INEGI.

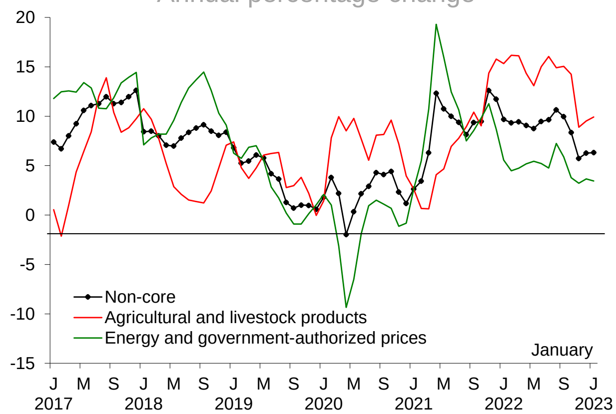
Chart 22
Merchandise Core Price Sub-index
Annual percentage change



Source: Banco de México and INEGI.

Annual non-core inflation increased from 5.73 to 6.32% between November 2022 and January 2023 (Chart 23 and Table 1). Within its components, the annual inflation of agricultural and livestock products rose from 8.89 to 9.93%. This increase is explained by the rise from 3.44 to 10.17% in the annual inflation of fruits and vegetables, while that of livestock products decreased from 13.79 to 9.73%. The annual variation of energy products registered levels of 2.29 and 2.52% during the same period.

Chart 23
Non-core Price Sub-index
Annual percentage change



Source: Banco de México and INEGI.

Regarding inflation expectations drawn from the survey conducted by Banco de México among private sector specialists, between November 2022 and January 2023, the medians for headline and core inflation for the end of 2023 increased from 5.07 to 5.18% and from 5.06 to 5.20%, respectively. The median of headline inflation expectations for the end of 2024 rose from 3.80 to 4.00%, while that for core inflation increased from 3.89 and 4.00%. The median of headline and core inflation expectations for the next 4 years (medium term) decreased from 4.00 to 3.80% and from 4.00 to 3.83%, respectively. The median of headline inflation expectations for the long term (5 to 8 years) decreased slightly from 3.60 to 3.58%, while that for core inflation was revised from 3.55 to 3.50%. Finally, compensation for inflation and inflationary risk remains at high levels. Within it, expectations implied by market instruments remained stable, while the inflation risk premium decreased, although it remains at high levels.

Inflation is projected to converge to the 3% target in the fourth quarter of 2024. These projections are subject to risks. On the upside: i) persistence of core inflation at high levels; ii) pressures on energy prices or on agricultural and livestock product prices; iii) the Chinese economy's reopening; iv) exchange rate depreciation; and v) greater cost-related pressures. On the downside: i) a greater-than-anticipated slowdown of the world economy; ii) a decline in the intensity of the geopolitical conflict; iii) a better functioning of supply chains; iv) a lower pass-through effect from some cost-related pressures; and v) a larger-than-anticipated effect from the Federal Government's measures to fight elevated prices. The balance of risks for the trajectory of inflation within the forecast horizon remains biased to the upside.

Table 1
Consumer Price Index and Components
Annual percentage change

Item	November 2022	December 2022	January 2023
CPI	**7.80**	**7.82**	**7.91**
Core	**8.51**	**8.35**	**8.45**
Merchandise	**11.28**	**11.09**	**11.00**
Food, beverages and tobacco	14.09	14.14	14.08
Non-food merchandise	8.13	7.68	7.53
Services	**5.35**	**5.19**	**5.51**
Housing	3.11	3.17	3.38
Education (tuitions)	4.49	4.49	4.48
Other services	7.45	7.07	7.53
Non-core	**5.73**	**6.27**	**6.32**
Agricultural and livestock products	**8.89**	**9.52**	**9.93**
Fruits and vegetables	3.44	7.22	10.17
Livestock products	13.79	11.50	9.73
Energy and government-authorized prices	**3.23**	**3.66**	**3.44**
Energy products	2.29	2.91	2.52
Government-authorized prices	5.61	5.48	5.70

Source: INEGI.

BANCO DE MÉXICO®

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