BANCO DE MÉXICO®

Minutes number 95

Meeting of Banco de México's Governing Board on the occasion of the monetary policy decision announced on September 29, 2022

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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: September 28, 2022.

1.3. Participants:

Victoria Rodríguez, 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

Most members stated that timely indicators suggest that world economic activity continued decelerating during the third quarter. They indicated that it has been affected by the adverse effects of the military conflict, and **one** member added the impact of the tightening of financial conditions. **However, most members highlighted that labor markets in various economies continued showing strength. Some** members underlined the recovery in labor participation rates and job creation in the United States. **One** member mentioned that, however, real wages in almost all advanced economies have started to register real negative variations, which anticipates future adjustments in private consumption. **Another** member added that high inflation has eroded the increase in nominal wages and highlighted that the current juncture has affected consumer confidence. **Most members underlined that global growth forecasts have been revised downwards, especially for 2023. One** member added that expectations of a recession have increased. **Another** member considered that the Chinese economy seems to have regained some dynamism. Nevertheless, **some** members pointed out that its growth expectations have been revised downwards.

Among risks to the global economy, most members highlighted those associated with the pandemic, the intensification of geopolitical tensions, and greater adjustments in monetary and financial conditions. One member added the energy crisis that may arise in Europe, as well as the possible effects of the decline in housing prices in advanced economies. **Another** member considered as additional risks: i) the increasing private debt that could lead to conditions of financial instability; ii) the high fiscal deficits, particularly in systemically important economies that implemented substantial stimulus packages during the pandemic; and iii) that the vulnerabilities in the real estate sector in China, in a context of weak economic activity, lead to credit default events, with amplifying effects to the rest of the world. Finally, he/she noted that the balance of risks for global economic activity remains considerably deteriorated.

Most members pointed out that global inflation continued increasing. This occurred in an environment where imbalances between demand and supply in several markets, and still high levels of food and energy prices, persist. Some members noted that in most economies, inflation remains above their respective central bank targets. **Most members highlighted that core inflation continues increasing. Some** members pointed out that in the United States, headline inflation declined in August, while core inflation increased. **One** member stated that in the euro area headline and core inflation increased in August, while in the major emerging economies headline inflation remained at high levels and core inflation continued increasing.

All members underlined the decline in the international prices of some commodities, especially energy-related ones, albeit with volatility. They pointed out that disruptions in supply chains have also moderated. Most members added that, in some countries, pressures on headline inflation have started to diminish. One member indicated that price-related pressures have decreased due to the effects of the favorable dynamics of the pandemic and to the restrictive stance adopted by various governments and central banks, which has led to a moderation of global spending. He/she considered that inflation expectations drawn from surveys and those implicit in market instruments have started to decrease at the margin in different countries. **Some** members stated that there is still uncertainty regarding whether world inflation has already reached its peak and whether its decline will coincide with central banks' forecasts.

Most members mentioned that a large number of central banks have continued raising their reference rates, some of them in a greater magnitude than expected. They mentioned that said institutions have maintained a restrictive tone, reaffirming their commitment to price stability. Regarding the Federal Reserve, all members stated that, in its latest monetary policy decision, it raised the target range for the federal funds rate by 75 basis points for a third consecutive time and anticipated future adjustments. Most members highlighted that the latest forecasts by said institution suggest further increases of 125 basis points for this year which would place the reference rate at 4.4%, and at 4.6% for the end of 2023. One member stated that the chairman of that institution expressed that future increases in the rates will continue to depend on incoming economic data. **Most members mentioned that the European Central Bank also raised its reference rate by 75 basis points. One** member underlined that other central banks have started to decouple from the Federal Reserve, responding to their domestic conditions. He/she pointed out that China and Japan continue implementing accommodative policy stances, while Chile and Brazil appear to have already reached the end of their hiking cycles.

Most members mentioned that expectations of a faster monetary tightening worldwide and of reference rates at elevated levels for a prolonged period prevail. One member mentioned that monetary authorities have generally acknowledged that inflationary pressures will be more severe and longer-lasting than expected. He/she underlined that they also anticipate a delay in the convergence of inflation to their targets toward the end of 2023 and 2024. He/she added that said authorities have expressed that ex-ante real interest rates could exceed the neutral range for some time and attain levels above those previously estimated. He/she noted that central banks have indicated that, if necessary, they will make greater sacrifices in terms of growth and employment.

Most members stated that financial conditions remained tight and that international financial markets exhibited volatility. They mentioned that the above have been affected by an outlook of more restrictive monetary policies in the main advanced economies and by a lower global growth outlook. They underlined that interest rates registered widespread and significant increases worldwide. They pointed out that stock markets exhibited a negative performance. They mentioned that the dollar continued gaining strength, reaching its highest level in 20 years. One member highlighted that this could imply a greater pass-through of external inflation to domestic inflation, a higher cost of debt service for debt denominated in that currency, and larger capital outflows in emerging economies. He/she added that the latter has been observed recently, particularly in fixed income instruments. **Another** member underlined that the pound sterling, the euro, and the yen reached their lowest levels in decades. **Some** members mentioned that the currencies of emerging economies exhibited a negative behavior, in a context of higher risk aversion. **Some** members highlighted that different central banks had to intervene in their foreign exchange markets. **One** member mentioned that risk premia in emerging economies also increased. **Another** member pointed out that an environment of high uncertainty is foreseen to continue for the rest of the year.

Economic activity in Mexico

Most members expect growth of economic activity during the third quarter of 2022 to slow down with respect to that observed in the first half of the year. However, they pointed out that after having remained weak in May and June, economic activity recovered in July. One member stated that said result was supported by the three main economic sectors. Nevertheless, he/she warned that almost 35% of sectoral activity remains below pre-pandemic levels. **Another** member added that economic activity still has not been able to surpass the level reached in April, and that, if timely figures for August are confirmed, economic activity will have remained on a flat trajectory for four consecutive months. **Some** members noted that the economy is expected to continue recovering gradually, although at a lower rate, and facing a complex global economic environment that maintains the balance of risks for growth biased to the downside.

On the supply side, most members stated that industrial production continued recovering,

supported by the sound performance of the manufacturing sector. One member indicated that industrial activity has expanded for five consecutive months. **Some** members considered said expansion has been heterogeneous across its sectors, showing a lack of dynamism in the mining and construction sectors. **Most members highlighted the slight recovery of services in July, nevertheless they underlined that these remain weak. Some** members mentioned that they continue showing a differentiated behavior.

On the demand side, most members pointed out that consumption continued recovering, supported by the high levels of remittances and of the real wage bill. Some members stated that during the second quarter the monthly indicator of private consumption increased 1.2%, although it decelerated in May and June. **One** member underlined that consumption has barely recovered its pre-pandemic level and continues showing a certain lag with respect to its trend. **Another** member highlighted the positive trend of consumption of imported goods. **However, most members noted that different consumption determinants, such as consumer confidence and real average income, among others, deteriorated at the margin**. **Some** members noted that this suggests a possible deceleration of private consumption. **Most members mentioned that investment continued recovering. One** member pointed out that this recovery has occurred with a high monthly variability. **Most members observed that the component of machinery and equipment has improved at the margin, while investment in construction continues to lack dynamism**. **One** member pointed out that spending on transportation equipment improved. **Another** member indicated that during the May-June period, total investment interrupted its growth, in the components of machinery and equipment and of construction. **As for the external sector, most members underlined the positive performance of exports. Some** members pointed out that automotive exports expanded in August, while the rest of manufacturing exports declined at the margin. **One** member noted that an improvement was observed in both the oil trade balance and the total trade balance. **Another** member added that the value of manufacturing exports has remained high, due to increases in both their volume and prices. **One** member warned that there are signals of a reduction in the growth rate of non-automotive exports, partly associated with expectations of a global slowdown.

All members mentioned that different labor market indicators have continued to improve, although **some** members pointed out that the recovery remains incomplete. **Most members highlighted that in July the extended unemployment rate and the labor participation rate registered levels similar to those prior to the pandemic. One** member added that in August the number of IMSS-insured jobs continued trending upwards. However, **another** member mentioned that there is still a deficit in formal job creation, and around 32 million workers remain in the informal sector. **Some** members highlighted that in August contractual wage revisions in the private sector and those of IMSS-insured workers continued trending upwards, with adjustments close to 7 and 12%, respectively. **One** member considered that, although the implementation of pending adjustments in wages is good news, the global indicator of labor productivity has accumulated eight consecutive quarters of contraction and is at levels previously observed in 2009, and that for this reason unit labor costs have increased considerably. **Another** member stated that the National Survey of Occupation and Employment (ENOE, for its acronym in Spanish), which includes both formal and informal workers, suggests that wages have not increased significantly in real terms. In contrast, he/she pointed out that inflation might be having a greater incidence on certain sectors, which would be associated with a heterogeneous recovery. He/she pointed out that wage revisions have concentrated in the subgroup of formal IMSS-insured workers, where the sectors of construction, agriculture and business-support services stand out. In contrast, he/she stated that real wages in other sectors are lagging behind. He/she mentioned that recent studies which decompose wage dynamics of IMSS-insured workers by type of worker, suggest that wage increases can be largely attributed to the 2021 labor outsourcing reform. He/she deemed it important to assess if such increases will be observed in the future once the effects of said reform dissipate.

Most members pointed out that slack conditions in the economy are expected to continue decreasing. One member warned that, on the demand side, the negative output gap could be inexistent or even positive if potential GDP turns out to be lower than estimated, or if the negative effects of the labor outsourcing reform are excluded. **Another** member argued that economic activity continues showing considerable slack, given that in the second quarter of the year, GDP remained well below its medium-term trajectory and slightly below its pre-pandemic level.

Inflation in Mexico

All members emphasized the high inflation levels. Most members indicated that in the first fortnight of September headline and core inflation registered annual rates of 8.76 and 8.27%, respectively. They stated that both headline and core inflation continue trending upwards. One member stated that such upward trajectory has been observed for over 20 months for headline inflation, and for over 18 months for core inflation. **Some** members mentioned that inflation has repeatedly been at higher-than-expected levels since early 2021. **One** member pointed out that headline inflation does not show signs of reaching its peak. Nonetheless, **another** member stated that pressures at the margin on monthly inflation have trended downwards since March. **One** member added that both headline and core inflation remain at levels unseen in two decades. **Another** member mentioned that even CPI items with more price rigidity register inflation levels above 4%, which indicates generalized pressures. **Most members stated that the high levels of inflation in Mexico are partly attributed to a global phenomenon. They indicated that although less disruptions and decreases in the international price references of some commodities have been observed, there are still imbalances between supply and demand in different markets. Some** members pointed out that production costs remain affected by increases in various input prices. **One** member mentioned that world inflation, particularly in the United States, needs to show a change of trend for inflation in Mexico to begin decreasing. However, he/she warned that this would not be sufficient, given that increasing pressures are also being faced at a domestic level.

Most members mentioned that core inflation continued registering high levels. One member pointed out that this was observed in practically all of its components. **Another** member noted that, at the margin, there were lower pressures on monthly core inflation, particularly in food merchandise and services. **Some** members highlighted that merchandise inflation is at double-digit levels. **Most members pointed out that food merchandise inflation reached 13.27% in the first half of September. One** member pointed out that this figure is nearly double the one registered a year ago, and that its annual increase in August was more pronounced than that of previous months. He/she added that this reflects the high levels of international food commodity prices. **Another** member mentioned that food merchandise prices have been increasing at double-digit rates for months. He/she added that in addition to negatively affecting the CPI and the purchasing power of lower-income households, this situation is worrying because consumers perceive these increases as the level of inflation in the economy in general. **Some** members pointed out that non-food merchandise inflation continues facing pressures. **Some** members noted that it has consolidated at very high levels and **one** member warned that it has trended upwards this year. **Most members mentioned that services inflation has followed an upward trend. One** member highlighted that it is at very high levels. **Some** members pointed out that this is due to the inflation in tourism and food services. **One** member added the inflation in education services as a cause. **Another** member deemed that services prices are responding to pressures on input costs and to an increase in demand due to greater mobility.

All members noted that non-core inflation remains at high levels. Some members mentioned that this is mainly explained by the prices of agricultural and livestock products. **One** member highlighted that the non-core component remains at high levels despite government efforts to contain energy inflation. He/she added that it is not expected to decrease easily. **Another** member mentioned that this component registered monthly rates in line with its historical average for three consecutive months. He/she added that this favorable behavior was observed in energy and in agriculture and livestock products. **One** member highlighted that inflation of agricultural and livestock products reached double digits. He/she pointed out that despite the decrease in international references, energy prices in Mexico have not declined proportionally. However, another member mentioned that energy prices registered relatively low annual inflation levels.

Most members stated that expectations for headline and core inflation for 2022 and 2023 rose again. Some members pointed out that this has been in line with the observed increase in inflation. **Most members indicated that medium-term expectations increased slightly at the margin and pointed out that long-term expectations remained stable, although above the target.** However, **some** members highlighted that their distribution shows a greater dispersion. Regarding expectations for core inflation, **one** member stated that long-term ones decreased at the margin. In this context, **another** member mentioned that although medium- and long-term inflation expectations have begun to stabilize, they are still at high levels. **Regarding expectations drawn from market**

instruments, most members noted that these have continued to deteriorate. Some members mentioned that those related to the long-term remain slightly above 3%. **Some** members noted that breakeven inflation registered generalized increases in all maturities.

Most members stated that, in view of greater-than-anticipated inflationary shocks and an outlook for their effects lasting longer than anticipated, forecasts for headline and core inflation were revised upwards for the entire forecast horizon. They pointed out that, in the current complex environment, inflation is foreseen to converge to the 3% target in the third quarter of 2024. One member mentioned that pointwise convergence is in line with the time frame in which monetary policy operates and coincides with the anticipated convergence of inflation in several economies. However, he/she noted that the fact that inflationary shocks could worsen or that new pressures could materialize cannot be ruled out. **Another** member highlighted that convergence to the target will take time because lower levels of external inflation do not automatically translate into a decline in domestic inflation, and because of the lag with which the restrictive stance will have an impact. He/she stated that convergence will be fragile given the continuous emergence of unanticipated shocks. He/she mentioned that convergence will be difficult to achieve, as it implies that by the second half of 2023 non-core inflation reaches levels far below what is usually observed. He/she indicated that, in addition to the fact that it has not followed a downward trend, it has a very strong seasonality, and it is volatile. Likewise, he/she pointed out that there is a divergence for the end of 2023 between our forecasts and analyst expectations, which calls into question the credibility of the trajectory presented, and could contribute to the deterioration of medium- and long-term expectations.

Among upward risks to inflation, most members mentioned the persistence of core inflation at high levels and the external inflationary pressures associated with the pandemic and the geopolitical conflict. One member considered that international reference prices of various commodities have shown a strong correlation with domestic prices and have generated an important pass-through onto domestic inflation, and for that reason it may be a risk if such pass-through shows an asymmetric effect onto the decline in inflation as the price of these commodities declines. Therefore, he/she stated that, looking ahead, the process of convergence could face significant challenges. As for wage revisions, **another** member estimated that these could intensify due to additional increases in the minimum wage, which could rise by more than 20% in the next two years. **One** member highlighted that the high levels of inflation seem to have started to affect wage revisions, which could imply the risk of a price-wage spiral. **Another** member pointed out that salaries, including those of both formal and informal workers, have not increased significantly in real terms, and therefore it is difficult to argue that there are generalized wage pressures. **One** member added the risk of an exchange rate depreciation in light of prospects of tighter global financial conditions. **Another** member added that the economy faces increasing domestic pressures. He/she noted that the output gap could be smaller than currently estimated and pointed out that services prices have increased considerably, even though they are generally non-tradable. He/she added that weather-related factors could exert upward pressure on prices. He/she stated that various risks are taking place in an environment of low competitiveness in multiple sectors, which could favor price increases. **One** member mentioned two risks to public finances that could exert pressure on monetary policy. First, that the growth levels foreseen in the 2023 Economic Package do not materialize. Second, that a larger fiscal deficit with greater levels of public spending are observed. Regarding downward risks, **another** member highlighted a greater-than-anticipated slowdown in world economic activity, as well as a reduction in the effects of the pandemic and the military conflict on production and distribution chains. **In this context, most members mentioned that the balance of risks for the trajectory of inflation within the forecast horizon remains biased significantly to the upside.**

Macrofinancial environment

Most members pointed out that domestic financial markets reflected the global dynamics of lower risk appetite and a generalized strength of the US dollar. They stated that the stock market registered negative movements. However, they pointed out that the peso remained stable. They noted a favorable behavior compared to the currencies of most emerging economies. One member noted that this positive result was also observed with respect to the currencies of advanced economies. **Another** member stated that the peso has been more volatile in recent days due to external factors. **Some** members highlighted that the sound macroeconomic fundamentals have contributed to the relatively favorable performance of domestic financial markets, particularly of the foreign exchange market. **One** member added that exchange rate stability has not only prevented further capital outflows, but also reduced inflationary pressures stemming from imported goods. **Another** member indicated that fiscal discipline has also contributed to preserve the credit ratings of public debt. He/she noted that capital flows to the debt market by non-residents have been negatively affected by the global component, and positively by the idiosyncratic factor. He/she stated that this explains the better performance of Mexican debt securities relative to those of other emerging economies. **One** member pondered that monetary policy actions implemented by Banco de México have led to an attractive volatility-adjusted interest rate spread relative to the United States.

Most members highlighted that interest rates of government bonds increased throughout the entire yield curve. Some members pointed out that short-term interest rates increased close to 120 basis points. **One** member added that medium- and long-term interest rates increased by up to 110 basis points. **Some** members highlighted that the yield curve of real interest rate instruments also increased in all its maturities. **Some** members considered that this implies a tightening of financial conditions and reflects expectations of a more restrictive monetary policy stance. **One** member pointed out that the sovereign default premia rose significantly.

One member highlighted that credit to the productive sector continued recovering. He/she added that despite an environment of higher interest rates, domestic financing to firms increased in July due to the gradual improvement in credit from commercial banks. He/she added that consumer credit continues increasing and that banks' loan portfolio delinquency rates continue declining. Another member considered that, although it improved at the margin, credit to the productive sectors remained weak and below its pre-pandemic level and its long-term trend.

Monetary policy

The Governing Board evaluated the magnitude and diversity of the shocks that have affected inflation and its determinants, along with the evolution of medium- and long-term inflation expectations and the price formation process. It also considered the increasing challenges for monetary policy stemming from the ongoing tightening of global financial conditions, the environment of significant uncertainty, the inflationary pressures accumulated as a result of the pandemic and the geopolitical conflict, as well as the possibility of greater effects on inflation. Based on these considerations, and with the presence of all its members, the Board decided unanimously to raise the target for the overnight interbank interest rate by 75 basis points to 9.25%. The Board added that 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 will assess the magnitude of the upward adjustments in the reference rate for its next policy decisions based on the prevailing conditions.

One member stated that the environment for conducting monetary policy has become more complicated, in view of inflationary pressures that still show no clear signs of dissipating, and tighter international financial conditions. He/she argued that since June of last year, throughout the entire inflationary episode associated with the pandemic and the military conflict in Ukraine, Banco de México has increased the reference rate in a timely and decisive manner, including increases of 75 basis points in the latest decisions. He/she highlighted that this reflects the commitment to the central bank's primary mandate. As for the ex-ante real interest rate, he/she mentioned that it is now around the upper bound of the range estimated as neutral, and should be brought into clearly restrictive territory. He/she pointed out that a 75 basis-point increase would achieve this objective and would reflect the central bank's commitment to its primary mandate, in a context of significant inflationary pressures. He/she stated that such reinforcement is also necessary to anchor inflation expectations, mainly longer-term ones. He/she underlined two challenges. First, that although adjustments in medium- and long-term inflation expectations during the year have been moderate, it is essential to act decisively to avoid an unanchoring process. He/she warned that, if this process were to materialize, it would affect price formation and significantly jeopardize the convergence of inflation to its target. Second, that monetary policy actions contributed to an orderly adjustment of financial markets, including the foreign exchange market, and prevented an impact on long-term expectations. However, he/she warned that episodes of greater risk aversion and exchange rate volatility cannot be ruled out, and thus a prudent monetary policy is required to avoid possible negative effects on financial markets. He/she added that, looking ahead, the hiking cycle must continue and pointed out that the magnitude of subsequent increases should be discussed based on the evolution of inflation and its determinants. He/she highlighted that inflationary episodes have a regressive impact, affecting lower-income households the most, since they have less access to the formal financial system and, consequently, have fewer alternatives to protect themselves from generalized price increases. He/she recalled that food prices have risen in greater magnitude, intensifying the regressive effects, since lower-income households tend to allocate a greater proportion of their spending to these products. He/she noted that it is essential for the central bank to prevent high inflation from becoming entrenched, as it would have persistent adverse repercussions on poverty, income distribution and, in general, on the well-being of Mexican families. He/she stated that this is why it is key for the Board to explicitly manifest its commitment to achieving the central bank's primary mandate.

Another member pointed out that, since the previous monetary policy decision, inflationary pressures, the factors that influence the forecasted trajectory for inflation, as well as its expectations, have deteriorated. He/she stated that additional factors are added to the deteriorated inflationary environment, at a global and local level, including a juncture of lower liquidity, high exchange rate volatility, greater risk aversion, as well as a deterioration in economic activity, and the possibility of new shocks stemming from the continuation or escalation of geopolitical conflicts. In his/her opinion, this environment implies that it will be necessary to continue increasing the reference rate, and that it should remain in a more restrictive level throughout the entire horizon in which monetary policy operates. He/she added that this would contribute to mitigate the deterioration of the price formation process and stop inflationary expectations from increasing, allowing inflation to converge to the target. He/she pointed out that although the unanchoring process seems to have started, adjustments at the margin in long-term expectations could indicate that pressures are somewhat contained. He/she considered it convenient to maintain the pace of monetary tightening that has been implemented given that, since the beginning of the hiking cycle, taking into consideration a 75 basis-point increase in the current decision, 525 basis points of increases would have been accumulated and the ex-ante real interest rate would finally be brought to restrictive territory. He/she added that a 75 basis-point increase would be consistent with the expected trajectory of inflation and would allow it to converge to the 3% target within the forecast horizon. However, he/she underlined that more adverse global conditions, in an environment of greater uncertainty, could lead the Governing Board to consider modifying the pace of adjustment. He/she warned that no scenario can be ruled out, and therefore it is fundamental to clearly communicate that: i) the reference rate will continue increasing; ii) the magnitude of the increases will depend on the conditions prevailing at the time of each decision; and iii) it will be necessary for the monetary policy stance to remain restrictive within the forecast horizon, to guarantee the convergence of inflation to the target.

One member considered it necessary to adjust the monetary policy stance in light of the inflation levels and to avoid second-round effects. He/she underlined that it is essential to continue adopting a restrictive monetary policy stance. He/she mentioned that with an increase of 75 basis points, the target rate would decidedly lay in restrictive territory and that it is time to evaluate up to when and to what extent the policy stance will be tightened, and what will be the response to additional hikes by the Federal Reserve. He/she stated that the terminal rate of the cycle would need to be determined based on the ex-ante real interest rate rather than on the nominal interest rate. He/she stated that the maximum level for the ex-ante real interest rate in recent years was 4.4%, reached in 2018. Thus, he/she estimated that a possible terminal level of such rate in this cycle could be between 4.5 and 5%. He/she added that such level would have a significant restrictive effect on economic activity and an impact on economic agents' expectations. He/she mentioned that, given the level of inflation expectations, said real interest rate level would be reached with a nominal interest rate of between 9.75 and 10%, and thus a higher rate would be unnecessarily restrictive. He/she warned that this would imply having excessively high levels of real interest rates in the short term that might turn out to be even higher in the future, to the extent that the monetary policy stance affects inflation expectations. He/she considered it desirable for the hiking cycle to conclude by the end of 2022 and that the restrictive monetary policy stance is maintained throughout 2023 in order to allow monetary policy to operate. He/she pointed out that it is imperative to consider the lag with which monetary policy works and avoid an excessive tightening. He/she indicated that the restrictive policy would have just begun affecting credit, consumption and investment, and noted that the effect of this stance, along with the decline in international prices of commodities, makes it possible to foresee that inflationary pressures will begin to diminish. He/she warned that, if ending 2022 with an ex-ante real interest rate close to 5% is to be achieved, the pace of adjustments would need to be reduced, regardless of what the Federal Reserve may do. He/she expressed that decoupling from the pace of said institution's interest rate hikes could be feasible as of the next policy decision since: i) Banco de México began its hiking cycle earlier and, considering the proposed hike, it would accumulate 525 basis points of increases; ii) hikes of 150 basis points in the federal funds rate are anticipated and Banco de México requires a smaller adjustment; iii) Mexico's ex-ante real interest rate is in restrictive territory, unlike that of the United States; iv) Mexico does not face demand-related or labor market pressures; v) the interest rate spread relative to the United States is close to historical highs and far above the spread calculated with the estimated neutral interest rates for both countries; and vi) Mexico maintains solid macroeconomic fundamentals.

Another member highlighted the importance of having a restrictive monetary policy stance consistent with a complex inflationary landscape. He/she pointed out that the conditions are not suitable for slowing the pace of interest rate increases and that it could even be debated whether such pace should be accelerated. Although an increase of 100 basis points would send a strong signal and contribute to contain the deterioration of expectations, it is not advisable since: i) it would lead to an unnecessary increase in the relative stance; ii) an increase that is greater-than that anticipated by the consensus of analysts and market operators would generate uncertainty about future adjustments; iii) there would be the risk of reaching a very high terminal rate, with a pace of adjustment difficult to maintain that would require subsequent reductions, for which there would be no conditions in the coming months; and iv) it would be difficult to justify a strategy of front loading, bringing forward the interest rate hikes, given the uncertainty about the terminal level of the interest rate. He/she stated that although a significantly restrictive absolute monetary stance would not eliminate the inflation outbreak, it would prevent second-round effects from taking place and the risk of expectations becoming unanchored. He/she added that an increase of 75 basis points is barely enough to bring the ex-ante real interest rate further into restrictive territory, and thus any fears about reaching an excessively restrictive monetary policy stance, which affects the rate of growth of economic activity, may be ruled out. He/she highlighted that cyclical conditions become a secondary priority until inflation is brought under control. He/she argued that with the aforementioned adjustment, the ex-ante real interest rate would be at the maximum level reached during the restrictive cycles of 2008 and 2019. He/she added that in view of a more complex inflationary outlook, the terminal real interest rate should be higher, even more so than that anticipated by markets, and at a level near 6%, as his/her own models anticipate. Moreover, he/she argued that it is not possible to implement a hike lower than that of the Federal Reserve not because an automatic rule is followed, but because: i) synchronizing inflationary pressures between both economies demands a similar tightening; ii) a solid relative stance is necessary given expectations of additional increases by the Federal Reserve; iii) a premature decoupling could generate exchange rate volatility and be perceived as a sign of complacency; and iv) an interest rate spread of at least 600 basis points should be maintained at least until the end of the year to support the good performance of the Mexican peso in view of the appreciation of the dollar and the higher volatility. He/she stated that it should be communicated that it is very likely that the same pace of adjustment will continue in the next decision, adding that higher increases should not be ruled out if the inflationary outlook deteriorates even further. He/she pointed out that it must be highlighted that the magnitude of the increases will depend on the latest information, especially regarding observed inflation and its expectations, as well as forward-looking inflation indicators, such as producer prices and international price benchmarks for commodities. He/she emphasized that in order to avoid higher costs in the future, the commitment to the constitutional mandate must be strengthened until the inflation trend has moved past its inflection point, inflation expectations have stabilized, and inflation forecasts are no longer revised upwards.

One member stated that, in line with the monetary policy regime, the stance should be adjusted so that the central bank inflation forecast reflects a more neutral and symmetric balance of risks. He/she stated that during this hiking cycle, Banco de México has acted in a committed manner, with timely and gradual increases in the reference rate, as well as robust and forceful hikes when conditions have so required. He/she argued that a restrictive monetary stance has already been achieved. He/she added that, although medium- and long-term inflation expectations have started to stabilize, they are still at high levels and within them they exhibit a bimodal distribution between 3.5 and 4%, which represents a significant challenge for monetary policy. He/she considered it necessary to maintain such expectations anchored. He/she pointed out that by increasing the pace of adjustments of the monetary policy rate, the ex-ante real interest rate was raised beyond the range estimated as neutral. He/she noted that an increase of 75 basis points would strengthen the absolute monetary stance and ensure that the nominal interest rate lies above the level of observed inflation, which is a necessary condition to achieve its convergence to the target. He/she emphasized that the nominal interest rate would also be above the expected levels of inflation within the forecast horizon, which is consistent with a downward trajectory of inflation. Regarding the relative monetary stance, he/she stated that inflation expectations in the United States have declined faster than in Mexico, and thus the ex-ante real interest rate spread between both countries has narrowed. He/she highlighted that the greater monetary tightening in the United States and the intensification of geopolitical tensions led to an increase in risk aversion and to greater volatility. He/she argued that the proposed interest rate increase would provide certainty that markets and the financial system will adjust in an orderly manner and avoid affecting the economy's price formation process. He/she stated that, looking ahead, each decision must be carefully calibrated, determining the appropriate monetary stance to guarantee price stability and ensure the convergence of inflation to the target. He/she underlined that all available information must be considered when determining the monetary policy stance.

3. MONETARY POLICY DECISION

The Governing Board evaluated the magnitude and diversity of the shocks that have affected inflation and its determinants, along with the evolution of medium- and long-term inflation expectations and the price formation process. It also considered the increasing challenges for monetary policy stemming from the ongoing tightening of global financial conditions, the environment of significant uncertainty, the inflationary pressures accumulated as a result of the pandemic and the geopolitical conflict, as well as the possibility of greater effects on inflation. Based on these considerations, and with the presence of all its members, it decided unanimously to raise the target for the overnight interbank interest rate by 75 basis points to 9.25%. 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 will assess the magnitude of the upward adjustments in the reference rate for its next policy decisions based on the prevailing conditions.

4. VOTING

Victoria Rodríguez, Galia Borja, Irene Espinosa, Gerardo Esquivel and Jonathan Heath voted in favor of increasing the target for the overnight interbank interest rate by 75 basis points to 9.25%.

5. DISSENTING OPINION/ VOTE

Opinion. Irene Espinosa

The main reason behind my dissenting opinion regarding the monetary policy statement is that, in view of the deteriorating outlook for inflation and financial conditions, the significant correction in our inflation forecasts, and a balance of risks biased significantly to the upside, I consider it appropriate to provide an explicit guide that allows an alignment of expectations on the future path of the reference rate within the horizon in which monetary policy operates. As I have mentioned on previous occasions, communication is a key aspect of monetary policy. Following this premise, I believe that, in addition to mentioning that the reference rate will continue to be adjusted upwards, and that the magnitude of said adjustments will be evaluated by the Governing Board based on the conditions prevailing at the time each policy decision is made, on this ocassion, the monetary policy statement should mention explicitly and clearly that, in order to converge to the 3% target, the monetary policy stance must remain restrictive during the entire forecast horizon. Although a high level of uncertainty prevails, providing a guide on the future stance of monetary policy is necessary to enable the formation of expectations consistent with inflation's convergence to the target.

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

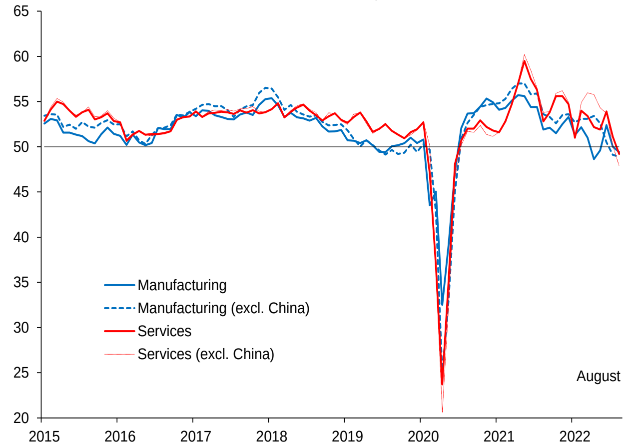
A.1.1. World economic activity

Timely indicators suggest that global economic activity has continued decelerating during the third quarter of 2022 due to the negative economic effects of Russia's invasion of Ukraine, a slower-than-anticipated recovery of economic activity in China, and the tightening of global financial conditions due to a more accelerated withdrawal of monetary stimulus. This weakening has occurred in different regions and sectors (Chart 1).

World inflation continued increasing in an environment in which imbalances between supply and demand in various markets and elevated prices of energy and food persist, although some commodities' price adjustments have moderated in recent readings. In this context, a large number of central banks continued raising their reference rates, some of them in greater magnitude than expected, while expectations of a faster monetary tightening at a global level and of reference rates at high levels for a prolonged period continued. Global financial conditions remained tight and the dollar continued gaining strength.

Among the most important global risks are those associated with the COVID-19 pandemic, the persistence of inflationary pressures, the intensification of geopolitical tensions, and further adjustments in economic, monetary and financial conditions.

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

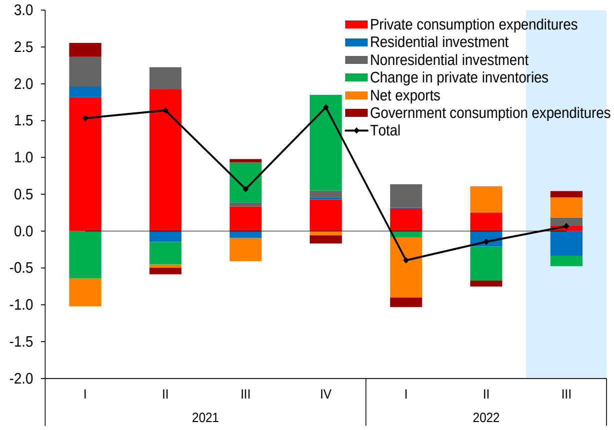


s. a. / Seasonally adjusted figures.
Source: IHS Markit.

In the United States, available indicators suggest a moderate GDP growth in the third quarter of the year (Chart 2), after having contracted in the previous two quarters. Although economic activity in the third quarter has been supported by net exports, some timely indicators have weakened compared to a few months ago, especially those related to the real estate sector. Although private consumption's contribution is expected to remain positive, it has lost dynamism due to lower real household income and tighter financial conditions.

Industrial production continued expanding at a moderate pace at the beginning of the third quarter, growing 0.2% on average at a seasonally adjusted monthly rate in July and August. This growth was driven by the continued expansion of manufacturing production, supported by consumer durables and equipment, although the latter registered a slowdown at the margin. Meanwhile, mining production was driven by a rebound in oil and gas drilling and extraction in July, before stalling in August, while gas generation for domestic consumption and electricity decreased in both months. The manufacturing Purchasing Managers' Index (PMI) points to slight growth during the third quarter, curbed by a moderate demand and persistent disruptions in supply chains.

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



a. e./ Seasonally adjusted figures.
Note: The shaded area refers to forecasts of GDPNow of September 2022.
Source: BEA and GDPNow (Federal Reserve Bank of Atlanta).

The US labor market continued showing signs of tightening. Non-farm payrolls continued their robust pace of job creation, increasing by 315 thousand new jobs during August, after having grown by 526 thousand jobs in July. The unemployment rate reached its lowest level in more than 50 years, 3.5% in July, before rising to 3.7% in August, largely reflecting an increase in labor participation. Several indicators show that wage growth remains high, thus providing signals of a tight labor market.

In the euro area, available indicators suggest that economic activity moderated during the third quarter, after having expanded at a seasonally adjusted quarterly rate of 0.8% in the previous quarter.[1] This reflects that, despite the higher levels of tourism, consumption and production have been affected, on the one hand, by the military conflict in Ukraine, particularly through its impact on gas supply, inflation, and consumer and business confidence, and, on the other, by the withdrawal of monetary stimulus in the region. The unemployment rate declined from 6.7% in June to 6.6% in July. Purchasing managers' indices point to a contraction in manufacturing and services in light of disruptions stemming from the military conflict in Ukraine, and a deteriorating demand in light of high inflation.

In the United Kingdom, timely indicators suggest that, after contracting 0.1% during the second quarter at a seasonally adjusted quarterly rate, economic activity would have weakened further in the third quarter.[2] This, largely due to the impact of high energy costs on real household income and inflation. In this context, the new government of that country announced a package of measures, including, among others, fiscal support aimed at reducing taxes and energy bills for households and companies in order to boost economic growth and contain inflation. The package involves the largest tax cuts since 1972, and therefore the announcement triggered expectations of a deterioration in the fiscal accounts and the balance of payments, leading to episodes of risk aversion.

In Japan, available information suggests that economic activity, after having registered a seasonally adjusted quarterly growth of 0.9% during the second quarter of 2022, moderated its pace of growth in the third quarter.[3] This slowdown would be associated with the persistent negative impact of the pandemic on private consumption, mainly of services and durable goods, and the slower growth of some of its main trading partners. In this environment, the unemployment rate remained in July at 2.6% for the third consecutive month. Purchasing managers' indices suggest a moderation in manufacturing activity and in services due to the aforementioned factors.

In the main emerging economies, available indicators suggest a heterogeneous performance across countries and regions during the third quarter of 2022. In Emerging Asia, a rebound in economic activity is expected, after the contraction observed during the previous quarter. In China, although economic activity showed a recovery following the lifting of restrictions imposed to contain COVID-19 contagions, the growth outlook for the third quarter has been revised downwards in view of the deterioration of the real estate sector and the effects of further restrictions to contain COVID-19. In Emerging Europe, available indicators suggest a slower pace of growth in most economies in the third quarter, with a forecast that Russia's economy is expected to contract again. In Latin America, its main economies are foreseen to perform

[1] Expressed as a seasonally adjusted annualized quarterly rate, the change in euro area GDP was 3.1% in the second quarter.
[2] Expressed as a seasonally adjusted annualized quarterly rate, the change in the United Kingdom's GDP was -0.3% in the second quarter of 2022.
[3] Expressed as a seasonally adjusted annualized quarterly rate, the change in Japan's GDP was 3.5% in the second quarter of 2022.

heterogeneously. Chile is expected to significantly contract during the third quarter, as consumption and investment have been affected by the volatility in copper prices, while other economies such as Mexico and Brazil are expected to continue recovering gradually.

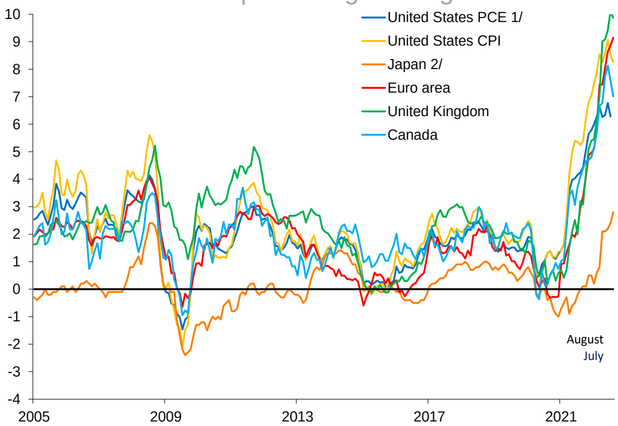
Since México's previous monetary policy decision, international commodity prices, in general, trended downwards, with episodes of volatility. Oil prices declined during most of the period due to concerns about a slowdown in world economic activity and the resulting lower demand for energy and the significant appreciation of the dollar. Although at the end of August and the beginning of September, prices registered some increases, due partly to the decision of the Organization of Petroleum Exporting Countries and other producers (OPEC+) to cut their production targets for October, prices subsequently resumed their downward trend, temporarily settling at below 80 dollars per barrel, in an environment in which the risk of an economic slowdown persists. Meanwhile, natural gas reference prices in Europe increased significantly at the end of August due to the announcement of the interruption of Russian gas supplies to the region through the Nord Stream 1 pipeline, although they subsequently decreased as the region increased its inventory levels and announced a plan to reduce demand for energy in the region. In the US market, natural gas prices increased during most of August, driven by greater demand due to higher temperatures, before declining at the beginning of September due to a sharp increase in production and forecasts of lower consumption. The price quotations of most industrial metals trended upwards during August in view of prospects of lower production and the risk that some industrial metal producers in Europe could be affected by the lack of energy in the region. Nevertheless, they have recently been subject to downward pressures again due to weaker demand from China and concerns about lower growth of world economic activity. The prices of most grains have increased, mainly in recent weeks, in view of the possible reestablishment of blockades on grain exports from Ukraine, the impact on European crops due to unusually high temperatures in the region, and concerns regarding a lower supply of grains worldwide.

A.1.2. Monetary policy and international financial markets

Inflation continued increasing and remained at its highest levels in decades in several of the world's major economies. This has continued to reflect the price increases in a greater number of items, in an environment where imbalances between the recovery of demand and supply in various markets persists. The high levels of food and energy prices continued contributing to the above, although price pressures on some energy and commodity prices, along with disruptions in global supply chains, have somewhat moderated.

In a large number of major advanced economies, headline inflation continued increasing, remaining significantly above their central banks' targets for a prolonged period (Chart 3). Although in some cases lower energy prices have reduced pressures on headline inflation, the latter remains at high levels, while core inflation has continued rising. In the United States, although inflation measured by the consumer price index continued declining moderately, it still remains at high levels, going from an annual rate of 8.5% in July to 8.3% in August, mainly reflecting a reduction in energy inflation, which was partially offset by an increase in food inflation. Meanwhile, after remaining unchanged in the previous month, annual core inflation in that country increased in August from 5.9% to 6.3%. Analysts' short-term inflation expectations for the main advanced economies remained at high levels, although those for the longer term derived from surveys have declined moderately in some cases. Longer-term expectations derived from financial instruments increased moderately in some of these economies.

Chart 3
Selected Advanced Economies: Headline Inflation
Annual percentage change

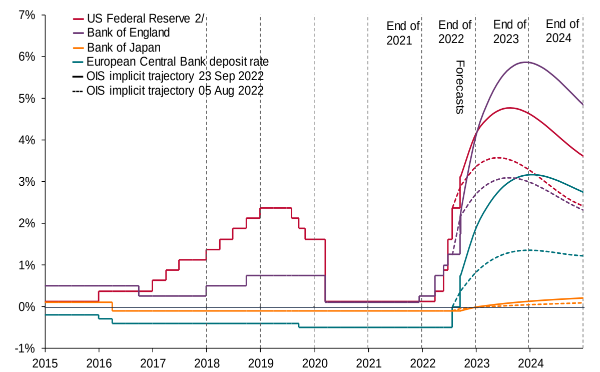


1/ The personal consumption expenditure deflator is used.
2/ Excludes fresh food. This series does not exclude the effect of the increase in the consumption tax in May 2014 and October 2019 nor the effect of the free daycare and preschool program in October 2019.
Source: Bureau of Economic Analysis,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

In a large number of the main emerging economies, headline inflation continued increasing and remained significantly above their central banks' targets, although in several of them it declined in the more recent readings. The rise in headline inflation in some countries has continued to be driven, in general, by the persistently high energy and food prices, as well as by higher core inflation generated by pressures on the prices of other goods and services. Although in some cases pressures on headline inflation have been reduced due to a moderation in the prices of certain commodities, inflation remains at high levels.

In this context of high inflation and tightening labor markets in some of the major advanced economies, the central banks of most of these economies have continued raising their reference rates, some of them by a greater magnitude than expected. Noteworthy were the larger-than-anticipated 100 basis point increase in the case of Sweden, and the 75 basis point increases by the Federal Reserve, the European Central Bank, the Bank of Canada, and the Swiss Central Bank, which, in the latter case, led it to end its period of negative interest rates. Regarding their asset purchase programs, most central banks continued gradually reducing their securities holdings, with the Bank of England announcing that it would begin selling UK government bonds from its Asset Purchase Facility (APF) shortly after its September meeting, although the start date for these sales was delayed by a month following the disruptions in the fixed income market caused by the release of the new government's fiscal stimulus package. Looking ahead, expectations drawn from financial instruments foresee higher levels of interest rates than previously expected for the end of 2022 and 2023 in most of the major advanced economies, being particularly noteworthy the upward revision for the United Kingdom (Chart 4).

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 (3.00% - 3.25%) is used.
Source: Banco de México with data from Bloomberg,

Among the recent monetary policy decisions of the main advanced economies' central banks, the following stand out:

i) At its September meeting, the Federal Reserve raised the target range for the federal funds rate by 75 basis points for the third consecutive time, placing it between 3.00 and 3.25%. The Fed reiterated that it anticipates that successive increases in the target range will be appropriate, that the Federal Open Market Committee (FOMC) is strongly committed to returning inflation to its 2% target and that, in assessing the monetary policy stance, the Committee will continue monitoring the implications of new data for the economic outlook. The chairman of said institution announced again that, as the monetary policy stance tightens, it will probably be appropriate to reduce the pace of increases and that they will continue to take decisions meeting by meeting; that is, without providing any specific guidance. He pointed out that the Committee is determined to reach a significantly restrictive stance and remain there until they are confident that inflation is declining. Regarding the Federal Reserve's balance sheet, the Federal Open

Market Committee (FOMC) reiterated that it will continue to reduce its holdings of Treasury securities, agency debt, and agency mortgage-backed securities as outlined in the Plans for Reducing the Size of the Federal Reserve's Balance Sheet released in May. The chairman stated that the possible sale of mortgage-backed assets is not something they are considering at this moment nor in the near future. Regarding the update of its economic projections, the Committee's median headline inflation expectations were revised upwards for 2022 from 5.2% in June to 5.4% in September, for 2023 from 2.6% to 2.8%, and for 2024 from 2.2% to 2.3%. For core inflation, medians were revised upwards from 4.3% to 4.5% for 2022, and from 2.7% to 3.1% for 2023, while for 2024 they remained unchanged at 2.3%. Median growth expectations were revised significantly downwards in 2022 to 0.2%, 1.2% in 2023, and 1.7% in 2024, while unemployment expectations were revised upwards for all years from an estimated level of 3.8% in 2022 to 4.4% in 2023 and 2024. As for reference interest rate expectations, median rates increased from June to September from a forecast of 3.4 to 4.4% for 2022, from 3.8 to 4.6% for 2023, and from 3.4 to 3.9% for 2024, while long-term rates were left unchanged. In this context, the expected trajectory for the implied federal funds rate in financial instruments shows an upward adjustment during the reported period, reflecting, based on the latest available information, a level of the reference rate for the end of 2022 of around 3.9%, lower than that expected based on the median of the Committee's September expectations of 4.4%. For the end of 2023, the implied rate is around 4.4%, below the median of the Committee's expectations of 4.6%.

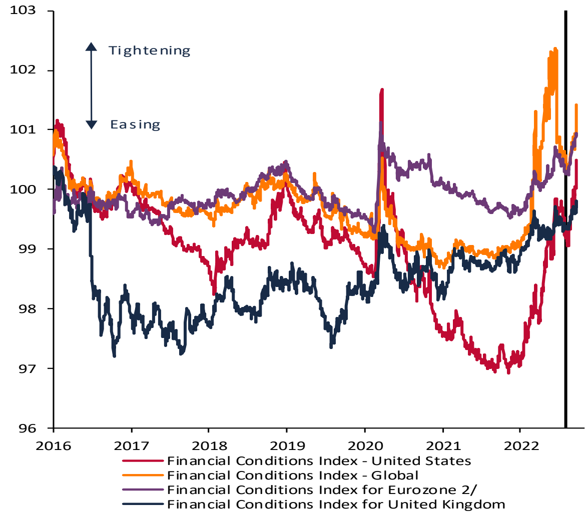
ii) At its September meeting, the European Central Bank increased its refinancing, key lending and key deposit rates by 75 basis points to 1.25, 1.50 and 0.75%, respectively. It reiterated that the Governing Council expects to raise interest rates further at its next meetings. It also noted that it will periodically assess its policy path and that future monetary policy rate decisions will continue to be driven by data and follow a meeting-by-meeting approach, that is, without following a pre-determined path. Regarding the Asset Purchase Program (APP), it reaffirmed the Governing Council's plans for the reinvestment of principal payments on maturing securities. In the case of its Pandemic Emergency Purchase Program (PEPP), it also confirmed its plans to reinvest principal payments on maturing securities, as well as its intention to continue reinvesting with flexibility to offset risks to the transmission mechanism related to the pandemic. The Council mentioned that the Transmission Protection Instrument (TPI) is available to counter unjustified or disorderly market dynamics that constitute a serious threat to monetary policy transmission in all euro area countries.

iii) In its September meeting, the Bank of Japan kept its reference rate unchanged at -0.1% and the 10-year interest rate target around zero, restating that it expects interest rates to remain at their current levels or even lower. Said central bank reiterated the guidelines for its yield curve control strategy, as well as for the purchase of assets other than government bonds. It added that it will gradually remove the Special Funds-Supplying Operations to Facilitate Financing in Response to the Novel Coronavirus by the end of 2022 or March 2023, depending on the type of loan. However, it announced that, in order to support financing, mainly for small and medium-sized enterprises, and with the objective of meeting a wider range of needs, the bank will not set a maximum limit on the supply of funds under the Funds-Supplying Operations against Pooled Collateral, for which various types of guarantees are accepted.

In the main emerging economies, most central banks continued raising their reference rates, in some cases, such as Hungary and Chile, significantly, by 100 basis points or more. Meanwhile, Brazil's central bank, despite leaving its interest rate unchanged in September, indicated that it will not hesitate to resume the restrictive cycle if the disinflationary process does not proceed as expected. The central banks of Turkey, China and Russia lowered their interest rates, with the Turkish case of two 100 basis point cuts standing out.

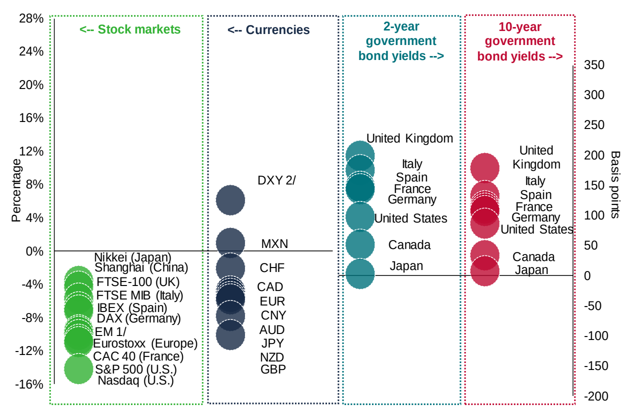
In the environment described above, international financial markets registered greater risk aversion since Mexico’s previous monetary policy decision, particularly in recent dates, as well as tighter financial conditions due to a significant increase in interest rates and the strengthening of the dollar. (Chart 5). In this regard, equity markets in most of the major advanced and emerging economies declined. In foreign exchange markets, the US dollar continued displaying strength, reaching its highest level in more than 20 years. It is noteworthy that the currencies of certain major advanced economies registered their lowest levels in decades and that, in this context, the Bank of Japan intervened in the foreign exchange market for the first time since 1998 to support the yen. Most emerging economies' currencies depreciated against the dollar. Interest rates on both short- and long-term government bonds in most major advanced economies rose in a context of persistently high levels of inflation and an accelerated withdrawal of monetary stimulus (Chart 6). In the United Kingdom, 10-year government bond yields reached their highest level since 2008 and the pound sterling depreciated sharply due to market volatility resulting from the government's announcement of a package of measures to promote growth and contain inflation, which led to concerns regarding the likely increase in the country's public debt. In light of risks to the financial system’s stability, the Bank of England announced that it will make temporary purchases of long-term government bonds. In emerging economies, interest rates increased in most cases (Chart 7). In this context, since Mexico’s previous monetary policy decision, emerging economies registered capital outflows from both fixed income and equity markets.

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. Emerging economies include Brazil, Chile, China, Czech Republic, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Philippines, Poland, Romania, South Korea, South Africa, Thailand, and Turkey. The global sample includes G10 countries and emerging economies.
2/ In the case of emerging economies, the financial conditions index considers the CDS as the credit spread component and includes the debt-weighted exchange rate. The vertical black line indicates the last scheduled meeting of Banco de México's Monetary Policy Committee.
Source: Prepared by Banco de México with Bloomberg and Goldman Sachs data.

Chart 6
Change in Selected Financial Indicators from August 5, 2022 to September 23, 2022
Percent; basis points



1/ The MSCI Emerging Markets Index includes 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%.
Source: Bloomberg and ICE.

Chart 7
Selected Emerging Economies: Financial Assets Performance since August 8, 2022
Percent, basis points

Region	Country	Currencies	Equity markets	2-year interest rates	10-year interest rates	CDS
Latin America	Mexico	-0.40%	-4.14%	115	105	41
	Brazil	-2.92%	3.06%	-103	-19	20
	Chile	-8.38%	-1.01%	16	-2	18
	Colombia	-3.04%	-13.19%	72	36	61
	Peru	0.27%	-4.93%	9	43	35
Emerging Europe	Russia	5.95%	-6.85%	71	68	N.D.
	Poland	-7.08%	-14.40%	29	135	17
	Turkey	-2.88%	16.05%	-602	-516	85
	Czech Republic	-6.34%	-6.82%	-11	150	-5
	Hungary	-9.15%	-12.84%	169	142	45
Asia	China	-6.09%	-5.74%	-3	-5	27
	Malaysia	-3.25%	-5.55%	22	45	42
	India	-2.48%	-2.90%	65	1	3
	Philippines	-5.31%	-2.72%	58	43	38
	Thailand	-5.91%	0.77%	12	69	17
	Indonesia	-1.68%	0.57%	43	23	60
Africa	South Africa	-8.20%	-10.60%	43	66	71

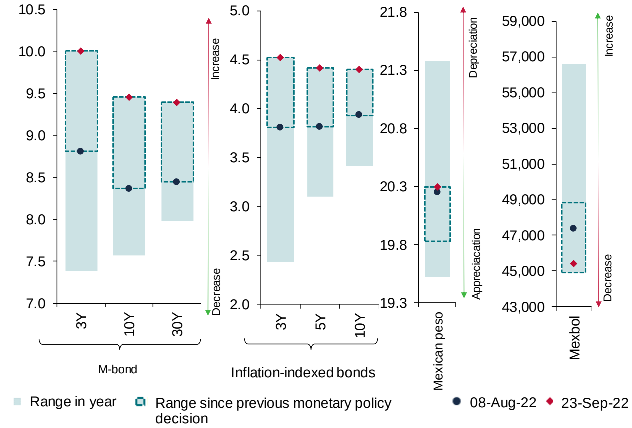
Note: An upward adjustment indicates currency appreciation. Interest rates correspond to swap rates at th3 specified terms, except for Hungary, where government securities with 3-year maturities were used as a reference. For the Philippines, a 2-year swap rate was used, and for Russia, a 2-year and 3-year swap rate was used.
Source: Bloomberg.

A.2. Current situation of the Mexican economy

A.2.1. Mexican markets

In the international context described above, in domestic financial markets, the Mexican peso remained relatively stable against the US dollar since Mexico's previous monetary policy decision, while longer-term interest rates registered upward movements, in line with those observed in global yield curves (Chart 8). This was generated by a sentiment of renewed risk aversion stemming from a faster adjustment in the Federal Reserve's expected path for monetary policy and higher-than-anticipated inflation readings worldwide.

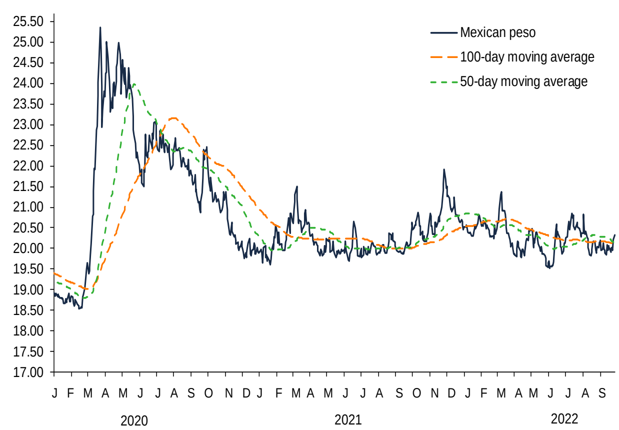
Chart 8
Mexican Markets' Performance
Percent, MXN/USD and index



Source: Prepared by Banco de México.

The Mexican peso fluctuated in a range of 47 cents, between 19.83 and 20.30 pesos per dollar, ending the reference period with a depreciation of 0.40% (Chart 9). This occurred in a context in which both spot and future trading conditions remained stable.

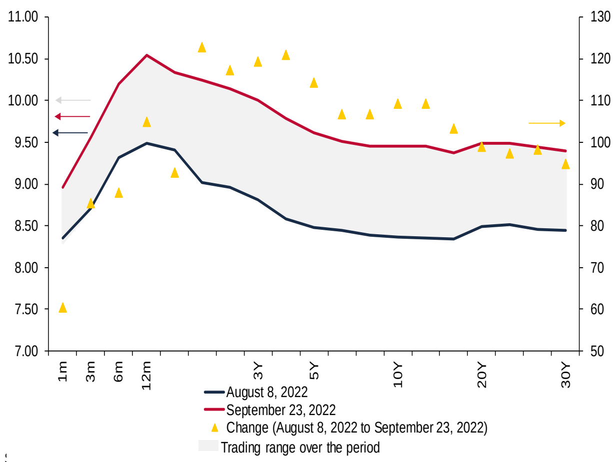
Chart 9
Mexican Peso Exchange Rate with Moving Averages
MXN/USD



Source: Prepared by Banco de México.

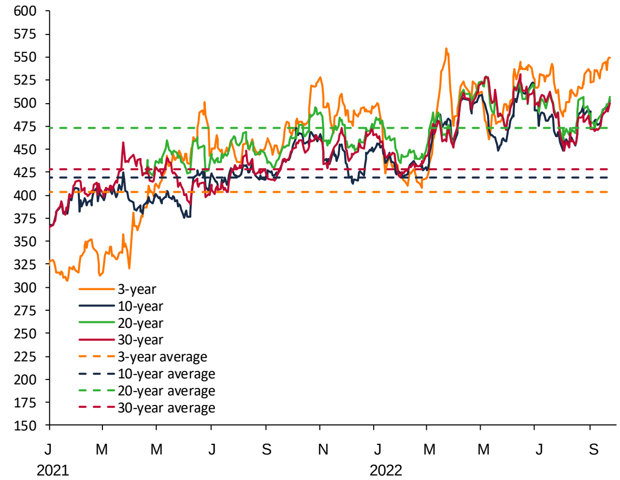
Interest rates on government securities exhibited a negative behavior (Chart 10), with increases of up to 123 basis points in the short-term nodes of the yield curve, and of up to 110 basis points in the medium- and long-term nodes. Similarly, the yield curve for real rate instruments registered increases of up 72 basis points in the short term and of between 47 and 61 basis points in the medium and long term. In this context, breakeven inflation registered generalized increases, which averaged 44 basis points in all maturities (Chart 11). These movements took place in an environment in which trading conditions deteriorated with respect to the previous period.

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



Source: PIP.

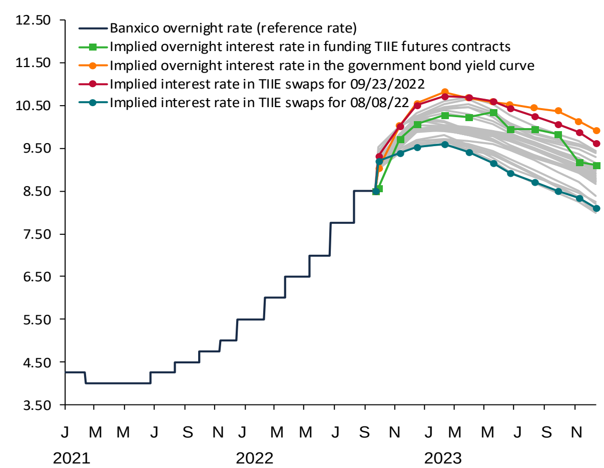
Chart 11
Breakeven Inflation and Inflation Risk Implied in Government Securities' Yields
Basis points



Source: PIP.

Regarding expectations for the monetary policy reference rate, the information implicit in the interest rate swap curve incorporates an increase of 81 basis points for the September decision, while for the end of 2022 it points to a rate close to 10.52% (Chart 12). Most analysts surveyed by Citibanamex anticipate that the reference rate will be raised 75 basis points up to a level of 9.25% in September's decision, while for the end of 2022 they anticipate a rate of 10.00%.

Chart 12
Interbank Funding Rate Implied in TIIE Swaps
Percent



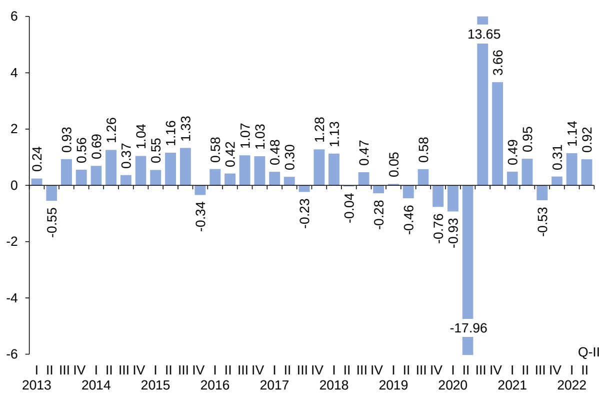
Source: Prepared by Banco de México with Bloomberg data.

A.2.2. Economic activity in Mexico

Economic activity in Mexico continued recovering during the second quarter (Chart 13). The pace of growth for economic activity is expected to slow down during the third quarter with respect to the first half of the year. This, in a context in which high uncertainty regarding both the behavior of inflation and the future evolution of the pandemic persists.

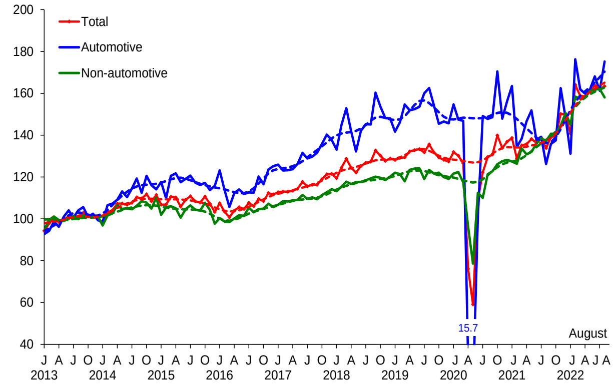
As for external demand, in August, the value of automotive exports increased, while that of the rest of manufacturing exports contracted at the margin (Chart 14).[4] By destination, manufacturing exports to both the United States and the rest of the world increased.

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



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

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



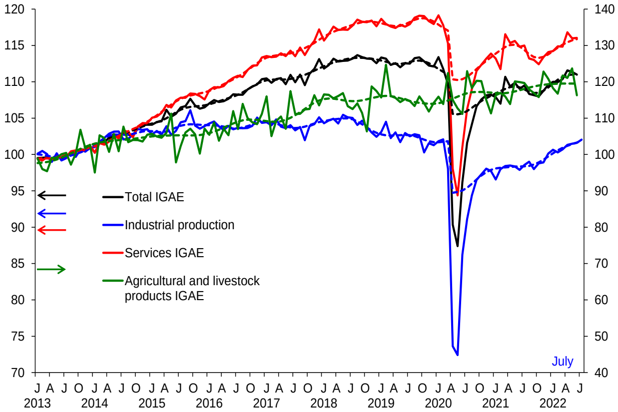
s. a. / Seasonally adjusted series and trend series based on data in nominal US dollars. The former is represented by a solid line and the latter by a dotted line
Source: Prepared by Banco de México with data from the Tax Administration Service (SAT, for its Spanish acronym), the Ministry of the Economy (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 domestic demand side, according to its monthly indicator, private consumption has slowed down. Although in June consumption of imported goods maintained its dynamism, that of domestic goods and services remains sluggish. In June, gross fixed investment reversed part of the decline shown in the previous month, maintaining a slight recovery. Machinery and equipment reversed most of the fall observed in May, while investment in construction continued showing some weakness, despite the improvement observed in that month.

On the production side, industrial activity continued reactivating in July (Chart 15), driven by manufacturing, while both construction and mining remained weak (Chart 16). Tertiary activities reactivated, although maintaining heterogeneity across its sectors. In particular, those that registered growth were leisure and other services; public administration; commerce; educational and health services; accommodation and food services. In contrast, those that decreased were transportation and mass media information services; financial and real estate services, and professional, corporate and business support services.

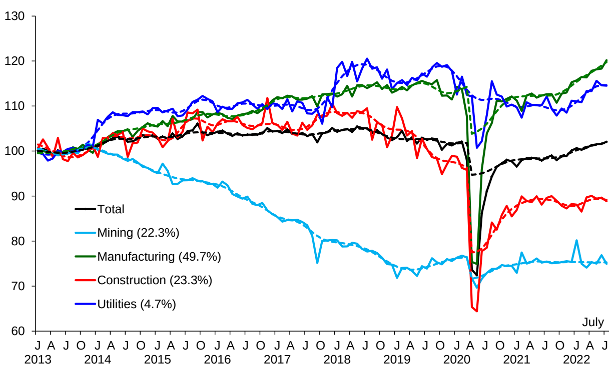
[4] Refers to the value of merchandise exports in current dollars. This value differs from that reported for goods' exports in Mexico's System of National Accounts, since the latter represents value added, measured in constant pesos.

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

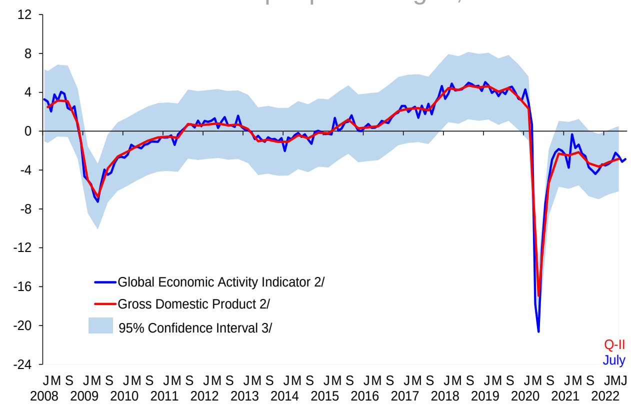
Chart 16
Industrial Activity 1/
Indices 2013 = 100, s. a.



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.

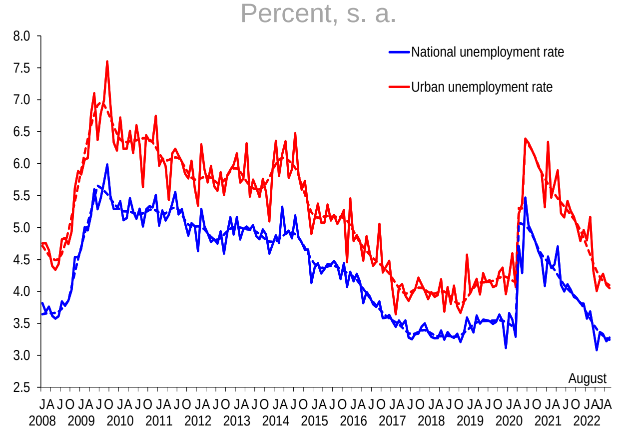
Regarding the cyclical position of the economy, slack conditions continued decreasing during the second quarter of 2022 (Chart 17) and are anticipated to continue doing so during the third quarter. In July and August, the national and urban unemployment rate remained at relatively low levels (Chart 18). This took place in a context in which both the labor participation rate and the employment rate among the working age population registered a level similar to that of the previous quarter. Based on seasonally adjusted figures, net creation of IMSS-insured jobs continued trending upwards between July and August. Finally, in July, unit labor costs in the manufacturing sector more than reversed the increase observed in June, largely reflecting a rebound in labor productivity (Chart 19).

Chart 17
Output Gap Estimates 1/
Excluding Oil Industry 4/
Potential output percentages, s. a.



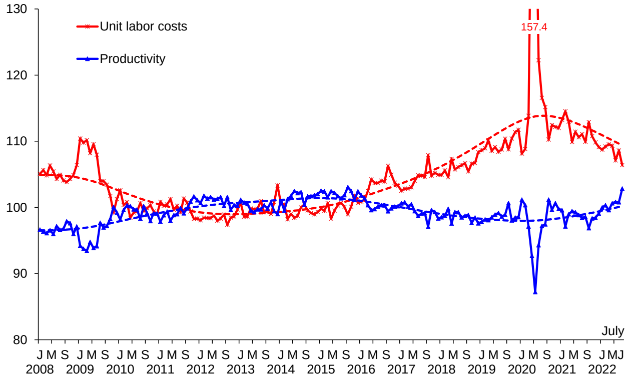
s. a. / Calculations based on seasonally adjusted figures.
1/ Output gap estimated with a tail-corrected Hodrick-Prescott filter; see Banco de México (2009), "Inflation Report, April-June 2009", p.74.
2/ GDP figures up to the first quarter of 2022 and IGAE up to June 2022.
3/ Output gap confidence interval 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 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.

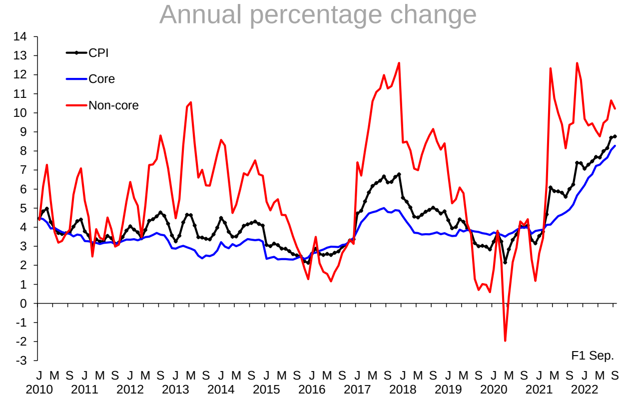
In July 2022, domestic financing to firms registered a positive real annual variation for the first time since May 2020. Within it, bank credit to firms continued recovering gradually, exhibiting a positive real annual variation for the third consecutive month, thus accumulating three quarters of increases in its balance. This, in a context in which corporate credit demand continued recovering, while lending conditions remained tight compared to those that prevailed at the beginning of the pandemic, although these have been easing for smaller firms since the second half of 2021. Net corporate debt issuance in the domestic market increased in July, although it continued registering the negative flows accumulated during the year. As for credit to households, commercial bank housing portfolios maintained their pace of growth. In turn, outstanding bank consumer credit continued increasing in real annual terms, mainly as a result of the sustained dynamism of payroll credit and credit card portfolios, and more recently, of the personal credit portfolio. This has taken place in a context in which household demand for credit has continued increasing. Mortgage lending conditions remained stable, while consumer credit conditions eased during the second quarter of the year.

In July, interest rates on bank credit to firms were at levels above those observed prior to the pandemic. Corporate credit intermediation margins did not show significant changes with respect to the previous month and are generally at levels lower than those observed prior to the pandemic. Interest rates on mortgage credits increased in July, after having remained at levels around their historic lows since August 2020. In April 2022, credit card interest rates increased in relation to those observed in February, while those of payroll credit registered similar levels. Regarding portfolio quality, in June 2022, corporate and housing loan delinquency rates were similar to those of the previous month and continued at low levels. Finally, consumer portfolio delinquency rates declined, thus remaining at levels lower than those registered prior to the onset of the pandemic.

A.2.3. Development of inflation and inflation outlook

Between July and the first half of September 2022, annual headline inflation increased from 8.15 to 8.76% (Chart 20 and Table 1), still continuing to be affected by the shocks associated with the COVID-19 pandemic and the military conflict between Russia and Ukraine.

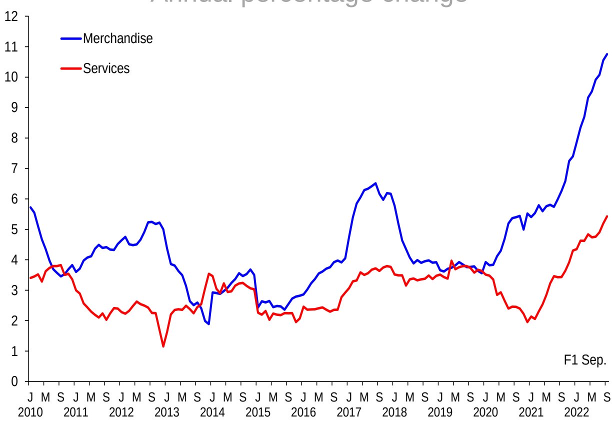
Chart 20
Consumer Price Index
Annual percentage change



Source: Banco de México and INEGI.

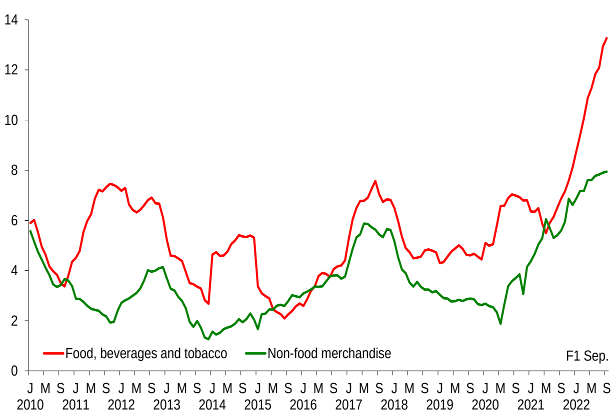
Annual core inflation increased from 7.65 to 8.27% between July and the first half of September 2022 (Chart 21). Within it, in said dates, annual merchandise inflation rose from 10.07 to 10.75%, reflecting the pressures affecting production costs driven by disruptions in production and supply chains, as well as the high prices of inputs, although both factors have started to somewhat improve. In particular, food merchandise inflation increased from 12.09 to 13.27%, still reflecting the high food commodity prices, while non-food merchandise prices also continued to experience pressures, increasing from 7.83 to 7.94% (Chart 22). Annual services inflation went from 4.90 to 5.43% during the same period, driven by greater operating costs and higher demand. Annual inflation of services other than education and housing rose from 6.87 to 7.64%, driven by higher annual variations in the prices of food and transportation services. Likewise, the annual inflation of education increased from 3.27 to 4.49%, reaching levels similar to those observed prior to the pandemic, while that of housing, which increased from 3.02 to 3.11%, is already at levels above those of February 2020.

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



Source: Banco de México and INEGI.

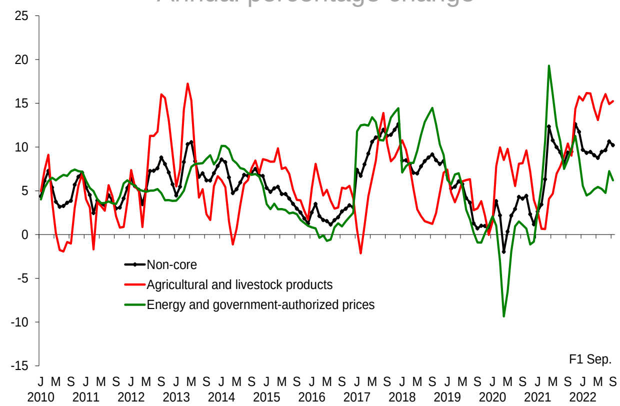
Chart 22
Merchandise Core Price Sub-index
Annual percentage change



Source: Banco de México and INEGI.

Between July and the first half of September 2022, annual non-core inflation increased from 9.65 to 10.22% (Chart 23 and Table 1). Within it, annual inflation of agricultural and livestock products went from 16.05 to 15.23% in the aforementioned dates, still affected by the high prices that continued to be observed for its production inputs, such as grains and fertilizers Annual energy inflation rose from 4.68 to 6.64% during the same period.

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



Source: Banco de México and INEGI.

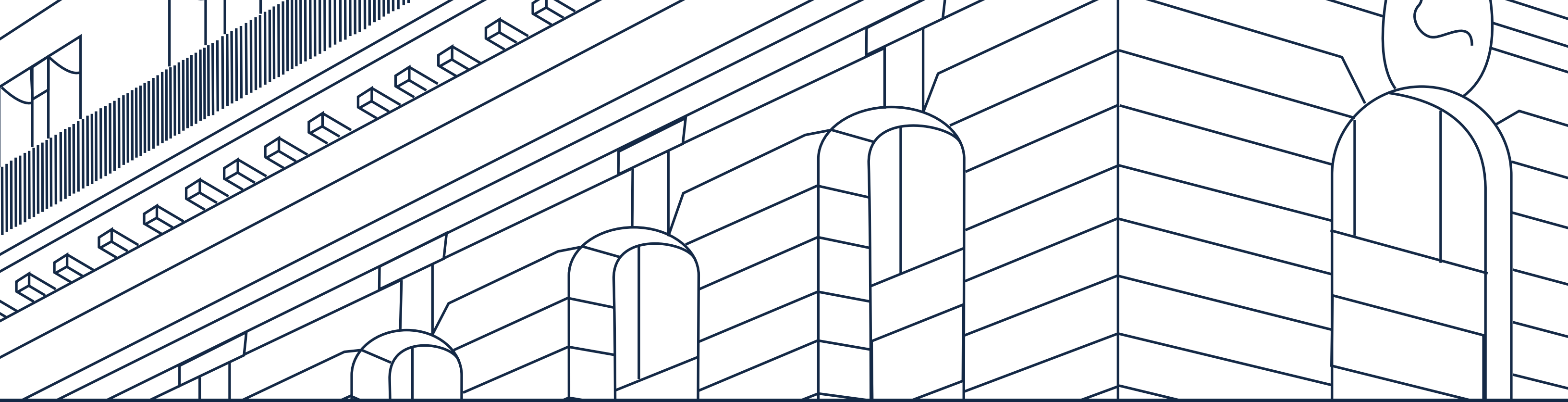
Regarding inflation expectations from the survey conducted by Banco de México among private sector specialists, between July and August the median for headline inflation for the end of 2022 increased from 7.80 to 8.13%, while that for core inflation rose from 7.08 a 7.67%. The median of headline inflation expectations for the end of 2023 was revised from 4.50 to 4.66%, while that for core inflation increased from 4.31 to 4.44%. The median of headline inflation expectations for the medium term was adjusted slightly from 3.82 to 3.85%, while that for core inflation was adjusted from 3.83 to 3.80%. The median of headline inflation expectations for the long term (5 to 8 years) remained at 3.60% and for core inflation decreased from 3.57 to 3.50%. Finally, compensation for inflation and inflationary risk increased and remains at high levels. This was due to increases in both expectations implied by market instruments and the inflation risk premium, which remains at high levels.

Inflation is foreseen to converge to the 3% target in the third quarter of 2024. These projections are subject to risks. On the upside: i) persistence of core inflation at high levels; ii) external inflationary pressures associated with the pandemic; iii) greater pressures on agricultural and livestock product prices and on energy prices due to the ongoing geopolitical conflict; iv) exchange rate depreciation; and v) cost-related pressures. On the downside: i) a greater-than-anticipated slowdown in world economic activity; ii) a decline in the intensity of the geopolitical conflict; iii) a better functioning of supply chains; iv) a greater-than-expected effect from the negative output gap; and v) a larger-than-anticipated effect from the Policy Program to Fight Inflation and High Prices (PACIC, for its acronym in Spanish). The balance of risks for the trajectory of inflation within the forecast horizon remains biased significantly to the upside.

Table 1
Consumer Price Index and Components
Annual percentage change

Item	July 2022	August 2022	1st fortnight Sep. 2022
CPI	**8.15**	**8.70**	**8.76**
Core	**7.65**	**8.05**	**8.27**
Merchandise	**10.07**	**10.55**	**10.75**
Food, beverages and tobacco	12.09	12.94	13.27
Non-food merchandise	7.83	7.90	7.94
Services	**4.90**	**5.19**	**5.43**
Housing	3.02	3.12	3.11
Education (tuitions)	3.27	3.68	4.49
Other services	6.87	7.31	7.64
Non-core	**9.65**	**10.65**	**10.22**
Agricultural and livestock products	**16.05**	**14.90**	**15.23**
Fruits and vegetables	16.16	15.18	14.68
Livestock products	15.96	14.68	15.71
Energy and government-authorized prices	**4.76**	**7.25**	**6.20**
Energy products	4.68	8.14	6.64
Government-authorized prices	4.95	5.19	5.16

Source: INEGI.



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