



BANCO DE MÉXICO®

## Minutes number 64

**Meeting of Banco de México's Governing Board on the occasion of  
the monetary policy decision announced on December 20, 2018**

This document is provided for the reader's convenience only. The translation from the official Spanish version was made by Banco de México's staff. Discrepancies may possibly arise between the original document in Spanish and its English translation. For this reason, the original Minutes in Spanish are the only official document.





## **FOREWARNING**

This document is provided for the reader's convenience only. The translation from the official Spanish version was made by Banco de México's staff. Discrepancies may arise between the original document in Spanish and its English translation. For this reason, the original Spanish version is the only official document.

## **1. PLACE, DATE, AND PARTICIPANTS**

**1.1. Place:** Av. Cinco de Mayo Street no.2, 5<sup>th</sup> Floor, Col. Centro, Mexico City

**1.2. Date of Governing Board meeting:** December 19, 2018

### **1.3. Participants:**

Alejandro Díaz de León-Carrillo, Governor  
Irene Espinosa-Cantellano, Deputy Governor  
Javier Eduardo Guzmán-Calafell, Deputy Governor  
Manuel Ramos-Francia, Deputy Governor  
Carlos Manuel Urzúa-Macías, Secretary of Finance and Public Credit.  
Arturo Herrera-Gutiérrez, Undersecretary of Finance and Public Credit.  
Eduardo Magallón-Murguía, Deputy Secretary of the Governing Board

Prior to this meeting, preliminary work by Banco de México's staff analyzing the economic and financial environment, together with 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**

All members agreed that, during the fourth quarter of 2018, the world economy grew at an apparently lower rate than during the first half of the year and with heterogeneity among regions and countries. One member added that, although the global economy's dynamism has been gradually moderating, some indicators suggest a possibly larger weakening of the world economy than currently expected, highlighting the cases of the U.S., China, the Eurozone, and Japan. Most members pointed out that the forecasts for global economic activity have been revised downwards and, for this reason, global economic activity is expected to grow at a more moderate rate. In this context, some members concurred that the balance of risks for world economic growth continues biased to the downside. Most members agreed that the

main risks for global economic growth include: i) the escalation of trade disputes; ii) the tightening of global financial conditions, although this risk has declined recently; iii) several political and geopolitical factors; and, iv) the volatility of crude oil prices.

Regarding the first risk, most members mentioned that the trade dispute between China and the U.S. remains as one of the main factors of concern. In this regard, one member added that, despite the recent progress made in the trade negotiations between these economies, a new stage of higher tariffs between the U.S. and China cannot be ruled out. In this sense, another member warned that global trade has decelerated significantly and that the Purchasing Managers' Indices (PMIs) of the manufacturing sector show a clear reduction, particularly those regarding export orders. Finally, another member noted that the intensification of the above mentioned risk factor could affect global value chains and exhaust the possibilities of an early recovery of the global economy. As to political and geopolitical risks, some members explained that the persisting difficulties in some systemically important economies continue to heighten the climate of uncertainty. One member highlighted the Brexit, where not only significant delays have materialized, but also that the probability of an agreement on terms reasonable for both the United Kingdom and the European Union has diminished. Furthermore, the same member added that, although the agreement on fiscal matters reached between the government of Italy and the authorities of the European Union eliminates the possibility of sanctions and reduces uncertainty, the risk of a sustained deterioration of Italy's public finances and macroeconomic outlook persists. In this context, one member underlined that political and geopolitical issues in the United Kingdom, Italy, France, and China, as well as idiosyncratic risks of emerging economies, will continue contributing to the environment of high uncertainty. Finally, regarding the risks related to crude oil prices, one member stressed that, in an environment of a global economic slowdown, and due to the higher production of crude oil by other producers, the behavior of oil prices in the next months is still uncertain, despite the production cuts agreed by some of the main producing countries.

Most members pointed out that the divergence in the performance of the main advanced economies continues. In this regard, most members pointed out that, although in the U.S., the growth rate of economic activity moderated during the fourth quarter 2018, it continues to expand at a higher rate than the Eurozone, Japan, and the United Kingdom.

In particular, one member stated that the dynamism of the U.S. economy reflects, among other factors, the procyclical fiscal stance adopted and the mature phase of the business cycle the U.S. economy is currently going through. As to the growth forecasts of advanced economies, most members agreed that these have been revised downwards. The members stated that, in the case of the U.S., the latest information from financial markets reflects the expectations of an economic deceleration and that considerable risk factors will be faced during this process. In this regard, one member highlighted that there is the perception that the aforementioned deceleration will materialize when the effects of the fiscal stimulus fade away, among other factors. Some members mentioned that, although the possibility of recession in the U.S. in the next years is still low, it has been increasing.

As to emerging economies, one member mentioned that their economic growth exhibits significant differences and has weakened. The same member noted that growth forecasts for this group of countries have been revised downwards. In this regard, most members highlighted the economic deceleration of China and the downward revisions in Chinese growth forecasts, given the escalating trade tensions with the U.S. Finally, another member noted that the risks for emerging economies are expected to persist.

Most members added that less inflationary pressures have been observed worldwide, albeit with significant differences among countries. Some members mentioned that recent information indicates a tightening of labor markets. One of them also stated that there have been gradual increases in wages. Nevertheless, some members pointed out that in the major advanced economies inflation apparently has moderated its upward trend and one member added that it seems to have already reached its maximum levels in this cycle. Another member emphasized that the current levels of inflation are relatively low in historical terms. In the case of the U.S., most members pointed out that its lower economic dynamism, the recent fall in crude oil prices and the further strengthening of the U.S. dollar, have contributed to making headline and core inflations lie around the Federal Reserve's 2% target. One member mentioned that, in contrast, in the Eurozone and Japan, core inflation remains clearly below their central banks' targets. Another member considered that the balance of risks for global inflation remains relatively stable.

As for monetary policy in advanced economies, some members pointed out that, given the environment of lower inflationary pressures and

lower dynamism worldwide, the pace of monetary policy normalization is expected to be slower than as foreseen some months ago. One member mentioned that in these economies the prices of several financial assets are reflecting expectations of a significant moderation in the speed of monetary stimulus withdrawal. In the case of the U.S., all members stated that, as expected, the Federal Reserve raised the target range for the federal funds rate in December and anticipates that the pace of its monetary policy normalization will be more gradual in the future. All members argued that the abovementioned is due to the outlook of lower inflationary pressures and to expectations of a reduced economic dynamism. Some members pointed out that the projections of the Federal Open Market Committee (FOMC) are reflecting now two additional increases for the target range in 2019 and one in 2020. Another member stated that such projections indicate a lower level of interest rates in the coming years and for the long term. As for market instruments, one member explained that they are reflecting expectations of lower increases in the reference rate, while another member added that, at this time, they do not incorporate additional adjustments in 2019. Additionally, one member mentioned that the policy of quantitative tightening will continue to be gradual, transparent, and foreseeable. In this regard, another member specified that although the U.S. Federal Reserve has followed a gradual and pre-announced monetary policy normalization process, the escalating trade tensions and the significant fiscal stimulus adopted in the mature phase of the economy's business cycle, have made the behavior of the economy and of the outlook for inflation in that country more complex and uncertain. As for the Eurozone, one member pointed out that, although the European Central Bank announced the end of its assets purchase program, it also stated that the level of the interest rate and the size of its balance sheet may remain at their current levels for a long period. As for the central banks of emerging economies, one member noted that these have maintained a more vigilant monetary policy rhetoric with respect to inflation and emphasized their interest in preserving financial stability.

Most members agreed that international financial markets exhibited high volatility and that the prices of financial assets of emerging economies have deteriorated slightly, although their evolution has improved in the last days. In this regard, some members mentioned that the greater uncertainty about economic activity, especially in the U.S., and its implications for global financial conditions, have led to adjustments in stock markets and to greater risk aversion. One member stated that this adverse

international environment was also due to the combination of increased trade tensions between the U.S. and China and to the perception of a certain exhaustion of the effects of the fiscal stimulus on economic activity. The same member explained that this environment is particularly noticeable in the countries that have vulnerable macroeconomic fundamentals or are facing idiosyncratic risk factors. Another member pointed out that decreases in the interest rates of government bonds have been observed recently in the main advanced countries as well as a depreciation of the U.S. dollar against other major currencies. One member pinpointed that so far into the fourth quarter of 2018, the U.S. stock market has exhibited an accumulated loss of nearly 15%, and interest rates of 10-year Treasury bonds went from 2.86% in early September to 3.24% by mid-October, and fell again to 2.82% on December 18. Additionally, some members pointed out that crude oil prices have continued to decline, which has contributed to this environment of uncertainty. One member also warned that it is important to take into account that market adjustments can be considerably abrupt in face of the events related with the deceleration of the Chinese economy, in a context where it is not foreseen that new wide-scale measures will be implemented to offset such downturn. In this regard, one member highlighted that, in this environment, the financial assets of emerging economies registered moderate losses and investors continue to reduce their exposure to fixed-income assets of these economies while they have increased their exposure to equity assets. One member noted that, recently, expectations of a more gradual monetary policy normalization process in advanced economies has eased the volatility in international financial markets and allowed for a certain recovery in the asset prices of emerging economies. Finally, most members pointed out that, given the possible persistence and/or materialization of some of the above mentioned risk factors, the potential for new episodes of financial turbulence persists.

Regarding economic activity in Mexico, most members considered that in the fourth quarter of 2018 the economy underwent a deceleration as compared to the upturn observed in the previous quarter. One member mentioned that, although available information is limited, several indicators published to date, including those of industrial production, opinion surveys of the business sector and figures related to IMSS-insured jobs, point to a lower growth. As for aggregate demand, most members agreed that the negative trend of investment persists, one member highlighting the lower expenditure on construction and in machinery and domestic equipment. Another member pointed

that the trajectory of investment continues to be a cause for concern and noted that gross fixed investment has been following, up to September, a downward trend starting from very low levels. The same member added that it seems unlikely that this indicator will strengthen in the short term and that although there are several determinants of investment weakness, the lack of confidence is clearly one of the most relevant, and if no decisive actions are taken to revert this situation, the recovery of investment will be significantly limited. Most members stressed that, in the opinion of economic analysts surveyed by Banco de México, the current juncture to make investments is going through difficult times. One of them warned that this scenario worsened considerably in the last survey. Another one stated that in recent months business confidence indicators have deteriorated overall, those of the manufacturing, commercial, and construction sectors reaching levels considered as pessimistic. Most members underlined the expansion of private consumption. Regarding external demand, some noted that, at the margin, the dynamism of manufacturing exports has moderated. One of them highlighted the case of automotive exports. Another member stated that, despite the downturn observed in October, manufacturing exports remain on an upward trend. As for the production side, one member added that, although the dynamism of services has prevailed, industrial activity weakened at the margin, especially manufacturing and mining, which showed a marked deterioration associated with crude oil extraction.

Most members stated that forecasts for economic growth for the end of this year and for 2019 have been revised downwards by international organizations as well as by public agencies and private sector organizations. One member highlighted that the growth environment for 2019 is subject to high levels of uncertainty and will depend on the public policies that are implemented and their effects on private investment and consumption. In this context, most members expressed that the balance of risks to growth remains biased to the downside and has deteriorated. One member added that the downward bias is observed in both a short- and a medium-term horizon. In addition to the global risks described above, some members mentioned additional risks, such as: i) facing obstacles in the ratification of the trade agreements reached between Mexico, the United States and Canada; ii) that factors that lead to greater domestic uncertainty and less confidence in the outlook for the Mexican economy arise; and, iii) that certain delays arise in the execution of public expenditure related to the change of administration. Most

members argued that there are considerable risk factors for the medium and long terms, indicating one member that these are even of greater concern than those for the short term. Among the risks mentioned by most members are those of a structural nature derived from the possible adoption of policies that could lead to deep changes in the economy and in growth capacity; as well as those derived from the lack of rule of law, public insecurity and impunity, which are significantly affecting the prospects for investment and economic growth. One member added that the challenges are even more complex considering that no increase in the ratio of public investment to GDP is foreseen in the coming years; that it is difficult to expect that the dynamism of consumption will continue in an environment of persistently weak investment; and that exports might be affected given the outlook of lower world trade growth.

Most members considered that the slack conditions in the economy have remained relatively less tight than those observed at the beginning of the year. Some members mentioned that the phase of the business cycle that the Mexican economy is going through has not changed significantly since the last monetary policy decision. In this regard, some members indicated that most slack indicators, except those of the labor market, remain in neutral territory. One member specified that the economy operates with an output gap close to zero. Some members commented that the labor market maintains tight conditions, and one of them added that wages have increased. Some members argued that aggregate demand pressures are not perceived in the short term. One of them pointed out that this is due to the fact that some moderation in economic activity is expected in such horizon. In this regard, another member added that the output gap is still expected to continue to decrease in the following quarters, reaching levels around zero towards the end of 2019 and moderately below zero towards the end of 2020.

The majority indicated that headline inflation fell from 4.90% in October to 4.72% in November, exhibiting reductions in both its core and non-core components. One member pointed out that after reaching a maximum level of 6.77% in December 2017, headline inflation has followed a slow decreasing trend. Another member specified that from October to November headline inflation decreased for the second consecutive month, while another member warned that it is still early to conclude that the inflationary trend has resumed a downward trajectory and added that most indicators on the present juncture confirm that inflationary pressures persist. One member highlighted that,

since June, headline inflation has been affected by considerable increases in non-core inflation, particularly in energy prices.

As for headline inflation components, some members mentioned that non-core inflation fell from 8.50% in October to 8.07% in November, reflecting the lower increases in energy prices. They added, however, that such effects were partially offset by the higher increases in the prices of some agricultural products, so that non-core inflation remains at high levels. In this respect, some members specified that the prices of fruits and vegetables have increased significantly in recent weeks. Regarding core inflation, all members agreed that the shocks that have affected non-core inflation have also influenced core inflation due to the indirect effects they have had in production costs. The majority indicated that despite the reduction in core inflation from 3.73% in October to 3.63% in November, it shows a high resistance to decline due to the aforementioned shocks and also to structural factors. One member emphasized that core inflation has decreased with noticeable sluggishness. Another member mentioned that the recent behavior of core inflation does not yet reflect a general decline in all of its components. A member noted that, after decreasing in the first half of the year, core inflation was 3.62% in June and 3.63% in November, and that it has been affected by an increase in the annual price variation of services other than housing and education. Finally, another member added that the high persistence in the merchandise and services subindex, as well as the indirect effects of the exchange rate, have also contributed to the evolution of core inflation.

Most members mentioned that headline inflation expectations for different terms have increased. In particular, those for the end of 2019 increased from 3.71% to 3.89% between October and December, while those for the end of 2020 were revised upwards from 3.50% to 3.79% during the same period. The majority also indicated that during the same period, core inflation expectations for the end of 2019 were adjusted from 3.45% to 3.50%, while those for the end of 2020 increased from 3.33% to 3.37%. Most members noted that medium- and long-term headline inflation expectations are still above the permanent 3% target, at levels around 3.5%. One member warned that medium-term expectations (up to four years) were adjusted upwards and that the dispersion of long-term expectations has increased. As for information drawn from market instruments, the majority pointed out that medium- and long-term inflationary risk premia remain at high levels.

The majority of the members pointed out that inflation forecasts were revised upwards. One member stated that the indirect effects on core inflation have caused its deviation from the trajectory anticipated in the forecast. In this context, some members highlighted that the upward revision of forecasts is mainly due to a path for the exchange rate more depreciated-than-previously anticipated and to higher prices of agricultural products, particularly, fruits and vegetables. One of the members stated that the upward revision in the prices of such categories—as a result of adverse weather conditions— partially offsets the fall in energy prices. Another member added the recent increase in minimum wages to the factors affecting the projections for inflation.

The majority of the members considered that the balance of risks for the expected trajectory of inflation has deteriorated and remains biased to the upside, in an environment of marked uncertainty. Some members noted that, in an adverse external environment and with significant factors of domestic uncertainty, some of the risks to the upside for inflation have materialized. One of the members highlighted that, under such an environment, the outlook for medium- and short-term inflation has become more uncertain. One member estimated that, at the margin, the stabilization in the exchange rate market as well as a slightly less unfavorable external environment have improved the outlook for inflation in the short term. However, that member also acknowledged that considerable risks for the longer term persist for inflation and that core inflation continues to show an elevated degree of uncertainty. Some members agreed that there is a high risk that the convergence of headline inflation to its 3% target is delayed. One member added that such risks increase in an environment in which survey-based expectations for headline inflation and, to a lesser extent, for core inflation, for the next two years have been adjusted upwards, even without incorporating the recent increase in minimum wages.

As for the main cyclical risks to the upside for inflation, most members highlighted: the possibility that the peso exchange rate continues to be subject to pressures stemming from external and domestic factors; that additional pressures on energy prices or increases in the prices of agricultural products are observed; that a possible escalation of worldwide protectionist or retaliatory measures materializes; and, that public finances deteriorate. The majority also mentioned that considering the magnitude of the recent minimum wage increases, in addition to their possible direct impact, there is the risk that these bring about wage revisions that exceed

productivity gains and create cost pressures, affecting formal employment and prices. Some members mentioned that due to the observed shocks and the levels reached by inflation, there is the risk of second-round effects on the price formation process. Most members pointed out that inflation also faces structural risks related to the possible adoption of policies that could lead to significant changes in the economy's price formation process. In this respect, some members noted that a structural weakening of public finances could be observed, and one member added that, in his/her opinion, this is one of the main risks for inflation. Another member mentioned the possibility that the economy registers a lower potential growth rate.

All members highlighted that since the last monetary policy decision, the prices of financial assets in Mexico continued to exhibit marked volatility. Most members coincided that in addition to the aforementioned external factors, such environment continued to reflect the uncertainty regarding the policies of the new administration, one of them stating that in his/her opinion, this latter factor has been the most relevant. Most members underscored the following as factors that have led to an environment of uncertainty: the intention to cancel the project of the New Mexico City International Airport, concerns about the business model of Mexico's state-owned oil company (Pemex), and the potential effect of different legislative proposals. The majority pointed out that in such environment, the exchange rate has been under pressure, although some members mentioned that the operating conditions of the foreign exchange market remain adequate, while one of them added that the foreign exchange market has maintained stable levels of liquidity, depth and volume. Most members indicated that interest rates, mainly medium and long term, as well as sovereign risk premia remain at high levels. They also pointed out that medium- and long-term interest rates reached their highest levels in the last ten years and that operating conditions in that market have deteriorated significantly. In this regard, one member argued that primary auctions have exhibited lower participation from investors, both domestic and foreign, especially for instruments with longer terms and duration. Another member highlighted that interest rate differentials with respect to those of the United States are also at high levels. Some members added that stock indexes fell as well, and one of them emphasized that the Mexican Stock Exchange is currently at levels not observed since 2014. The majority stated that, despite the volatility observed in domestic financial markets, in the last days these have had a

better performance, with a moderate reversion in the depreciation of the Mexican peso, and a reduction of both medium- and long-term interest rates, and of sovereign risk premia. One member elaborated along the same lines that long-term interest rates have fallen by more than 50 basis points and that, as a result, the yield curve steepening that had been observed has significantly reverted. The majority argued that this improvement was caused by the favorable response of markets to the submittal of the 2019 Economic Package by the Ministry of Finance (SHCP, for its acronym in Spanish) to Congress, as well as to external factors, particularly expectations of fewer increases in the federal funds rate by the U.S. Federal Reserve.

Most members considered that both the domestic and external environment as described before imply medium-and long-term risks that could affect the country's macroeconomic conditions and thus, it is particularly important that, in addition to continuing with a prudent and sound monetary policy, measures to foster an environment of confidence and certainty for investment are adopted, public finances are consolidated sustainably, and actions that lead to higher levels of productivity are implemented. One member argued that all this has become necessary not only to promote greater economic growth and development, but also to avoid the materialization of risk factors that could lead to capital outflows. As some of the measures to improve investor confidence, most members mentioned the need to offer greater clarity on Pemex's business model and, in general terms, on the energy policy to be implemented in the coming years. In this regard, one member stressed that there are strong concerns about the future of Pemex and the Federal Electricity Commission (CFE, for its acronym in Spanish), while another member argued that obtaining a higher confidence could require additional efforts in different fronts and would also take a long time. As for public finance consolidation, most members stressed that the 2019 Economic Package submitted by the Ministry of Finance (SHCP) to Congress is consistent with the strengthening required in this matter and that it was prepared considering a macroeconomic scenario based on realistic assumptions. Most members argued that, as part of the measures to strengthen the country's macroeconomic fundamentals, it is particularly relevant that the fiscal targets included in the Economic Package are met. Some members considered the strict implementation of the fiscal targets a challenge, given the ambitious nature of the new projects by the Federal Government and the uncertainty inherent to the macroeconomic assumptions used. One member stated that this challenge is the most far-reaching one for public

finances in 2019 given the deterioration of confidence. Among the risks to which the assumptions for 2019 are subject, most members pointed out the possibility that lower tax rates at Mexico's northern border cause a higher-than-expected reduction in tax collection; that the economy grows at a rate lower than the 2% considered in the budget as a result, for example, of a lower-than-expected global growth; and that the oil production platform turns out to be below that considered in the Federal Income Law. As additional risks, one of the members mentioned greater cuts in public spending, which typically occur at the beginning of a new administration as a result of the departure of experienced public service officials due to the austerity measures, and that a sovereign credit rating revision takes place, hence leading to a higher financial cost for public debt.

With regards to the measures aimed at strengthening productivity and potential growth, some members highlighted the need to reduce the country's insecurity levels, corruption and the weak rule of law. One of them noted that doubts prevail as to the effectiveness of the fight against corruption and the improvement in public security. The same member stated that economic analysts surveyed by Banco de México continue mentioning these two obstacles and, in general terms, the lack of rule of law, as significant drags on growth and investment. Some members pointed out that, in addition to the aforementioned, the low effectiveness of the policies to promote economic competition have also hindered the country's potential growth and have been a source of inflationary inertia. In the same line, some members considered that the federal government policies may generate market distortions and affect the efficiency in allocating resources in the economy and, therefore, productivity. One member pointed out that it will be necessary to assure that the government actions, the multiannual projects considered and the assumptions used mainly on the estimates for economic growth and oil production, are consistent with the soundness of public finances in the medium and long terms. Some members warned that the Economic Package does not improve the composition of public spending and that the new strategy of the government seems to privilege consumption rather than human and physical capital formation, which could also affect the economy's potential growth. They also mentioned that, in the new budget, the ratio of public investment to GDP does not increase and that public investment will be allocated to projects whose financial and social returns are not evident. One of them added that the new social programs do not seem to include a clear structure of intertemporal



incentives oriented to improve productivity and efficiency, which could imply a significant cost for the population's welfare. Another member stated that the combination of investment stagnation and consumption strengthening might have major implications for both economic growth and the conduct of monetary policy. One member highlighted that the new government still needs to reveal its new strategies regarding key sectors for development, such as education and energy, in which there were already in place processes for the implementation of reforms with medium- and long-term reach and maturity. The same member mentioned that, in the future, it will be key for both fiscal and monetary authorities to keep an open and direct communication in order to identify any possible deterioration of macroeconomic fundamentals on time and for each to act rapidly and prudently in their spheres of competence.

One member delved into the factors to be considered in the conduct of monetary policy, highlighting that since mid-2015 the economy has been facing an adverse shock to its potential growth, together with a tighter external financing constraint. In this context, the same member mentioned that in recent years, the reduction in the current account deficit from around 2.5% of GDP in 2015 to slightly above 1.5% in 2017 occurred in an orderly manner, with a cost on growth of slightly over one percentage point, from 3.29% in 2015 to 2.04% in 2017, and close to 2.2% in 2018. The same member stated that in the presence of these shocks, the fiscal policy stance tightened, and therefore public sector borrowing requirements decreased by approximately three percentage points of GDP between 2015 and 2018, from 4% in 2015 to 1.1% in 2017. Such member mentioned that, in turn, monetary policy responded by tightening significantly its stance, in order to prevent inflation expectations in the long term from unanchoring and to restrain the decompression of the term premium, raising the target rate from 3% to its current level of 8.25%. The same member pointed out that due to the referred shocks, both the real exchange rate and real interest rates exhibited adjustments. The relative magnitude of the adjustment in the real exchange rate and real interest rates depends on the relative magnitude of the adjustment between the fiscal and monetary policies. To the extent that fiscal policy undergoes a higher adjustment, a larger part of the adjustment is reflected on the real exchange rate, whereas if monetary policy undergoes a higher adjustment, a larger part is reflected on real interest rates. The same member noted that the strong inertia exhibited by both core and fundamental core inflation. This member noted that it has been driven by null

productivity growth, which makes it difficult for the economy to absorb supply shocks without having a high cost in terms of inflation. Such member added that there are other distortions that make inflation show a high persistence, such as the high market power prevailing in certain sectors of the economy, which makes core inflation exhibit a high resistance to decline. Moreover, the same member highlighted that under such market distortions, monetary policy is not an effective instrument in bringing down inflation. Such member mentioned that a case that illustrates the aforementioned is having real wages growing above productivity, which could lead to higher levels of inflation, putting at risk the goal of raising the purchasing power of earnings. This member argued that implementing a decisive policy to promote competition in some sectors of the economy should contribute to reduce the relative prices of goods and services with low levels of competition, and in turn prompt an increase in wages' purchasing power, without creating risks or putting pressure on inflation. Such member highlighted that this situation is particularly relevant in the case of the consumption baskets of those segments of the population with the lowest incomes, given that it is possible that nearly 50% of the goods and services that make up their consumption baskets come from sectors with a high degree of market concentration. The same member warned that the fact that minimum wages have been below extreme poverty levels makes it more urgent to create an effective policy to promote competition. Such member highlighted that other factors that might be contributing to inflation's strong persistence are public policies related to price determination of energy products and hysteresis in the economy's price formation process. Also, that there are several distortions in the economy which might be playing a role on the high degree of inertia exhibited by core inflation and that, in some cases, monetary policy is and must continue to be the main instrument to fight inflation, while, in other, it can turn out to be a less effective instrument, depending on the distortions that are generating inflation's persistence.

All members agreed that monetary policy continues facing a complex situation, characterized by a high degree of uncertainty in which the balance of risks for inflation remains biased to the upside, in which some of the foreseen inflationary risks from a short- and medium-term perspective have materialized, and in which there is a possibility of medium- and long-term inflation expectations being affected. Most members stated that among the factors to consider for the monetary policy decision are: that non-core inflation remains high, affecting headline inflation and putting pressure on core inflation; that

core inflation has shown a resistance to decline; that short-term inflation expectations have been adjusted upwards; and, that inflation risk premia has reached high levels. One member added that the aforementioned takes place together with an outlook of a negative output gap and a balance of risks to growth tilted to the downside.

Some members warned about core inflation deviating from the forecasted trajectory and continuing to exhibit a high degree of uncertainty, which constitutes a risk for monetary policy. In this regard, most members agreed that the central bank must strengthen its monetary policy stance consistent with the attainment of the inflation target in the expected time frame and mitigate the risk of an un-anchoring of inflation expectations. Another member highlighted that the convergence to the inflation target during 2020 might require further increases in the reference rate. Nevertheless, such member stated that in order to define the above, it will be necessary to assess thoroughly the latest information on the outlook for inflation and its determinants, including the domestic and external factors of uncertainty that might affect inflation, in order to attain the abovementioned convergence at the lowest possible cost for economic activity. Another member emphasized that considering the U.S. Federal Reserve's recent increase in the target for the federal funds rate, as well as the uncertainty surrounding the development of the Mexican economy and the volatility that domestic financial markets have exhibited, the short-term interest rate differentials can help the Mexican economy to transit through an environment of higher uncertainty in an orderly manner and keeping inflation expectations anchored. Most members highlighted that given the current environment, the monetary policy stance must remain prudent in the next months. One member mentioned that despite expectations of an economic slowdown in Mexico, prudence in the conduct of monetary policy is necessary given the shocks that have affected inflation, the possible persistence of an environment of uncertainty, and expectations of a continuing process of monetary policy normalization in the U.S. In this regard, the same member added that it is important to keep in mind that a deterioration of confidence in the central bank would imply higher costs in terms of both inflation and economic growth. Also, that maintaining credibility on the inflation target is necessary and, for this reason, Banco de México must focus on such target but always analyzing the implications for economic activity, which requires a balanced approach. Another member considered relevant that the monetary policy statement should include that under the present environment of high uncertainty,

the Governing Board must remain vigilant to the development of inflation, its determinants and its expectations and, if necessary, act once more in a timely manner to reinforce its commitment with price stability. The same member mentioned that with these actions the central bank contributes to the attainment of the economic development goals and to improve the population's welfare. One member added that it is important to present a forward guidance of monetary policy that communicates that given the inertia exhibited by core inflation and the prevailing uncertainty, the target rate will probably need to be kept high for a long period.

### **3. MONETARY POLICY DECISION**

To guide its monetary policy actions, Banco de México's Governing Board follows closely the development of inflation vis-à-vis its forecasted trajectory, taking into account the monetary policy stance adopted and the time frame in which monetary policy operates, as well as available information on all inflation determinants and on medium- and long-term inflation expectations, including the balance of risks for such factors. Monetary policy must also respond prudently if for any reason the uncertainty faced by the Mexican economy increases significantly. In this context, considering the environment of high uncertainty, in which the balance of risks for inflation is biased to the upside and some of the risks that might affect it in both the short and long terms have materialized, and in view of the possibility that medium- and long-term inflation expectations may be affected, Banco de México's Governing Board has decided unanimously to raise the target for the overnight interbank interest rate by 25 basis points to 8.25%. Considering the challenges to consolidate a low and stable inflation, as well as the risks that the economy's price formation process is subject to, the Governing Board will take the necessary actions, specifically, maintaining or, in its case, strengthening the monetary policy stance, so that the reference rate is kept at a level consistent with the convergence of headline inflation to Banco de México's target within the period of influence of monetary policy.

Banco de México's Governing Board will maintain a prudent monetary policy stance and, under the current environment of uncertainty, will follow closely the potential pass-through of exchange rate fluctuations to prices, the monetary policy stance relative to that of the U.S. under an adverse external environment, and the conditions of slack in the Mexican economy. In the presence and possible persistence of factors that, by their nature, involve risks to both inflation and inflation expectations,

monetary policy will be adjusted in a timely and robust manner to achieve the convergence of inflation to its 3% target and to strengthen the anchoring of medium- and long-term inflation expectations so that they attain such target.

#### **4. VOTING**

Alejandro Díaz de León-Carrillo, Irene Espinosa-Cantellano, Manuel Ramos-Francia and Javier Eduardo Guzmán-Calafell voted unanimously in favor of raising the target for the overnight interbank rate (target rate) by 25 basis points, to 8.25%.

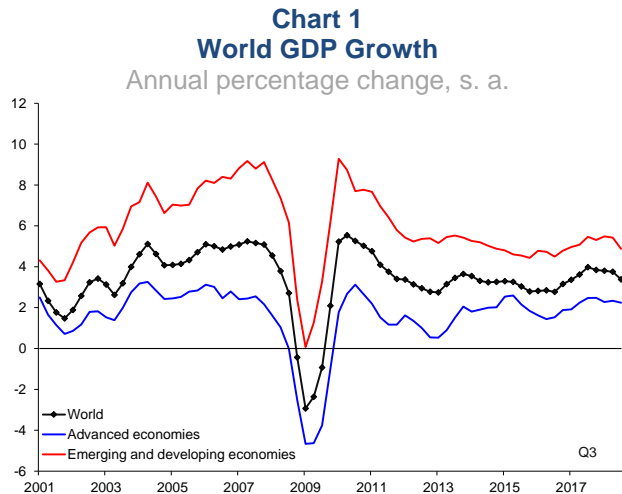
## ANNEX

The information in this annex was prepared for this meeting by the staff of Banco de México's General Directorate of Economic Research and General Directorate of Central Bank Operations and Payment Systems. 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

During the fourth quarter of 2018, the world economy is estimated to have grown possibly at a lower rate than during the first half of the year, and with heterogeneity among regions and countries (Chart 1). For the medium term, global economic activity is expected to continue to expand, albeit at a lower rate than in 2018. Such deceleration may be exacerbated if the risks stemming from the escalation of trade disputes or from the tightening of global financial conditions materialize, although the latter has decreased recently. Additionally, the risks of volatility in the prices of crude oil and of various elements of political and geopolitical uncertainty in some regions of the world are also present.



s. a. / Seasonally adjusted figures.

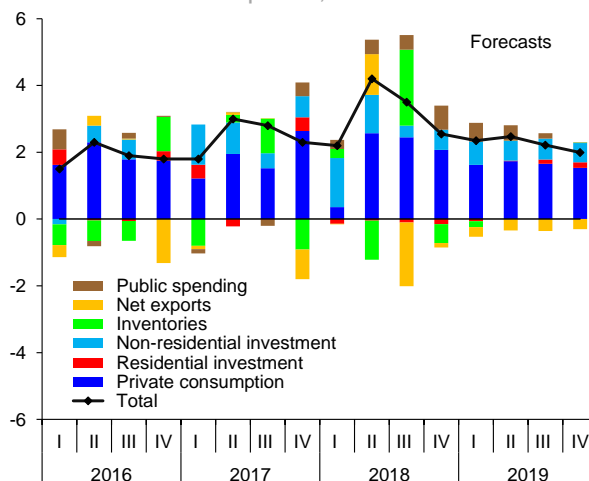
Note: The sample of countries used in the calculations accounts for 84.6% of world GDP measured by purchasing power parity.

Source: Prepared by Banco de México with information from Haver Analytics, J.P. Morgan and International Monetary Fund.

In the U.S., available indicators suggest that the growth rate of economic activity moderated during the fourth quarter of 2018, after expanding 3.5% at a seasonally adjusted annualized rate (SAAR) in the third quarter (Chart 2). Private consumption continued to be driven by the fiscal stimuli, the growth of employment, household confidence and, recently, by lower gasoline prices. In contrast, residential investment has continued losing dynamism and is expected to contract further, due partly to higher interest rates, high costs of construction and lower fiscal incentives for housing. Similarly, available figures for international trade point to a negative contribution of net exports, reflecting an appreciation of the U.S. dollar and the implementation of tariff measures worldwide. Additionally, the uncertainty regarding the economic outlook in the short and medium terms for the United States has grown, as a result of the latent risk of an intensification of trade disputes and an additional tightening of financial conditions.

**Chart 2**  
**USA: Real GDP and Components**

Annualized and seasonally adjusted quarterly percentage change and contribution in percentage points, s. a.



s. a. / Seasonally adjusted figures.

Source: BEA and Blue Chip December 2018.

U.S. industrial production increased its rate of growth in November, from a monthly rate of 0.1% in October to 0.6% in November. The higher dynamism was due to the continued growth of mining, quarrying and oil and gas extraction and to the strong upturn of utilities, which resulted from a higher demand for energy goods due to the unusually low temperatures in several regions of the U.S. In contrast, manufacturing continued to exhibit weakness, possibly reflecting the effects of the U.S. dollar appreciation and a weak external demand.

The U.S. labor market kept on strengthening, although at a more gradual pace. The non-farm payroll increased by 155,000 jobs in November, figure below the 200,000 monthly jobs that had been created on average in the previous months, but above the necessary to cover for the growth of the labor force. Thus, the unemployment rate remained at 3.7% in November, its lowest level in almost five decades, and below the natural unemployment rate estimated by the U.S. Congressional Budget Office (CBO). Other indicators also show signs of a lower rate of tightening in the labor market, among which the increase in initial unemployment insurance claims and the lower percentage of companies with vacancies stand out. It is worth pointing out that, despite the lower rate of tightening in the labor market, both the dynamism and reduced slack conditions that this market has exhibited throughout 2018 with respect to the previous year, have contributed to a faster growth of wages.

In the Eurozone, available indicators for the fourth quarter of 2018 point to a lower-than-expected recovery of economic growth, after having expanded only 0.6% (SAAR) during the third quarter. The weakness observed during the last quarter of the year is attributable to a slower fading of the transitory factors that affected some of the region's countries (particularly Germany and Italy) during the third quarter. Indeed, the Purchasing Managers' Indexes of the manufacturing sector and Business Confidence Indexes continued on a negative trend. Similarly, in October, the unemployment rate continued to stand at 8.1% for the fourth consecutive month, reflecting a slower rate of tightening of labor market conditions. Nevertheless, according to information up to the third quarter, wages grew at a faster rate, due to a narrower labor market slack in the region.

In Japan, available figures on industrial production and retail sales suggest a rebound in economic activity during the fourth quarter, after having contracted 2.5% (SAAR) during the third quarter due to severe weather conditions and to the effects of certain natural disasters. Several indicators continued signaling that tight conditions in the labor market prevail, with an unemployment rate nearing its lowest level in the last 25 years. Nevertheless, the Japanese economy faces risks to growth arising from the trade tensions between China and the U.S. and from the VAT increase that will go into effect at the end of 2019.

In emerging economies, during the fourth quarter the economy's growth rate appears to be stabilizing at a lower level than that of the first half of the year, albeit with a high divergence among economies. In China, the latest information reflects a more pronounced weakness of economic activity, while other countries, such as Turkey and Argentina, continue reflecting the negative effects of the deterioration of their financial conditions.

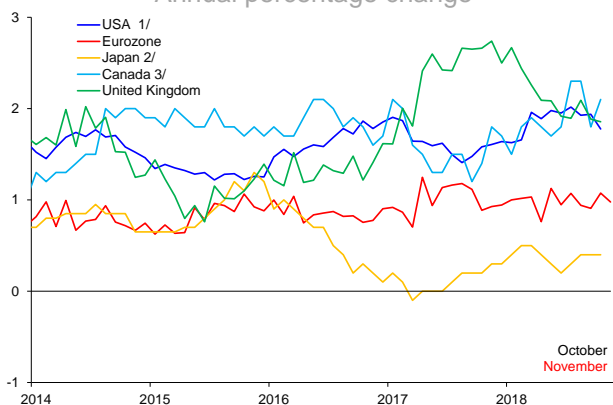
International commodity prices posted mixed results in the last weeks. On the one hand, crude oil prices have been falling since October due to the high levels of crude oil production in the U.S., Russia, and Saudi Arabia, as well as to concerns about a lower rate of expansion of the world economy leading to a weaker demand for crude oil. This led at the beginning of December to an agreement between the Organization of Petroleum Exporting Countries (OPEC) and other crude oil producers to cut crude oil production by 1.2 million daily barrels for a period of six months starting in January 2019. Nevertheless, crude oil prices continued to decrease due to the fear that such reduction may be insufficient to balance the supply and demand for crude oil at the then prevailing prices. On the other hand, the prices of industrial metals exhibited an erratic behavior given the uncertainty stemming from the trade tensions between the U.S. and China, as well as from the slowdown of economic activity in China. Finally, grain prices rebounded as a reflection of the expected increase in the demand for these goods by China, the trade truce between China and the U.S., and the expected negative impact on the supply of these goods due to the first snowfalls on U.S. crop fields.

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

In the last months, the upward trend of inflation moderated in most major advanced economies, in a context of reduced energy prices and lower

economic dynamism. In particular, in the U.S., although the growth of the personal consumption expenditures price index is still near the central bank's target, its core component was again below 2%. Moreover, in the Eurozone and Japan, core inflation remained at low levels and below their central banks' targets (Chart 3).

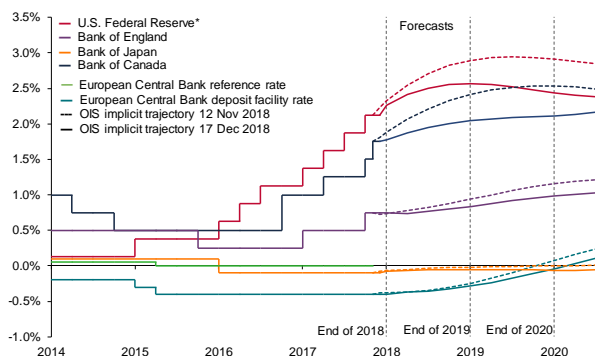
**Chart 3**  
**Selected Advanced Economies: Core Inflation**  
 Annual percentage change



1/ Refers to the Personal Consumption Expenditure (PCE) deflator.  
 2/ Excludes fresh foods, energy, and the direct effect of the consumption tax increase.  
 3/ Excludes food, energy, and the effect of adjustments on indirect taxes (CPI-XFET).  
 Source: Haver Analytics, BEA, Eurostat, and Statistics Bureau.

In this environment, although monetary authorities are expected to continue their monetary policy normalization processes, the adjustment is foreseen to be of a lower magnitude than what was expected some months ago, and to take place at a slower rate (Chart 4).

**Chart 4**  
**Target Rates and Implied Trajectory in OIS Curves<sup>1/</sup>**  
 Percent



1/ OIS: Fixed floating interest rate swap where the fixed interest rate is the effective overnight reference rate.  
 \* In the case of the U.S. observed reference rate, the average interest rate of the federal funds target range is used (2.00% - 2.25%).  
 Source: Bloomberg.

As expected, in December, the U.S. Federal Reserve raised the target range for the federal funds rate by 25 basis points (bps), to a range of between 2.25% and 2.50%. Looking forward, the Fed anticipates the pace of its monetary policy normalization to be more gradual than previously announced. It also stated that factors such as the global economic situation, the financial conditions, as well as their implications on the economic outlook, will be taken into consideration when determining the course of its monetary policy stance. The members of the Federal Open Market Committee (FOMC) revised downwards their growth and inflation projections for 2018 and 2019 in relation to those of September, albeit describing that the economy's rate of growth as still high. The median for the FOMC projections for the number of increases in the reference rate during 2019 decreased from three to two 25 bps raises during 2019, while maintaining the expectation of a single increase for 2020. Similarly, estimates for the long-term interest rate were revised downwards, from 3% to 2.75%. Furthermore, the probabilities in financial market variables imply fewer than one increases in the target range for the federal funds rate during 2019 and are even starting to incorporate a possible cut in 2020. Similarly, some brokerage firms have adjusted downwards their forecasts of reference rate increases for the next year, although their estimates vary considerably.

In its December meeting, the Bank of Canada left its reference rate unchanged at 1.75%, although its tone was more cautious than in previous decisions. In particular, it emphasized that trade conflicts have had a strong impact on global demand. This central bank also noted that, due to the fall in crude oil prices, the performance of the Canadian energy sector could be weaker than currently expected and that its inflation rate may decrease more than anticipated. Finally, it pointed out that future raises in the reference rate will depend on the evolution of economic data and of other factors, highlighting the impact of previous reference rate increases on economic activity, the evolution of crude oil prices, and global trade policies. In this context, expectations of the next increase in the reference rate implied in market variables were postponed from the beginning to mid-2019.

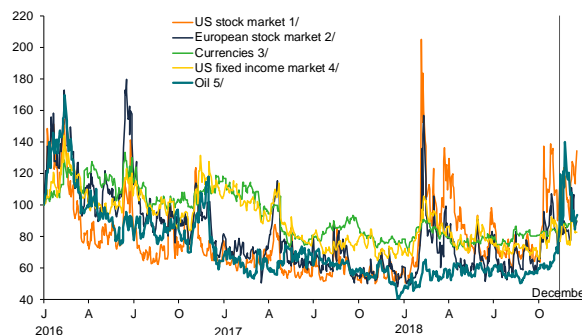
In its December meeting, the European Central Bank (ECB) left its reference rate unchanged at 0% and its key deposit and lending facility rates at -0.4% and 0.25%, respectively, reiterating that interest rates will remain at those levels at least until the summer of 2019, and, in any case, until necessary to ensure that inflation converges around 2% in the medium run.

Similarly, it restated that the purchase of assets will conclude this year and reiterated its intention to reinvest the principal payments from maturing securities for a period of time that will extend even beyond the first increase in the ECB's benchmark rate. The ECB also adjusted downwards its growth rate for this year and the next due to the further deterioration of its balance of risks, while inflation is expected to converge to the target in the medium term.

In most emerging economies, headline inflation continued to increase gradually, as a result of the increase in energy prices observed up to the beginning of October, the previous depreciation of their currencies, the higher core inflation arising from the reduced slack in many of these economies, as well as various idiosyncratic factors. Consequently, most central banks in these economies have maintained a tighter monetary policy rhetoric. Thus, the central banks of Indonesia, the Philippines, Israel, South Africa, and Korea raised their interest rates during the abovementioned period. Nevertheless, inflationary pressures are expected to moderate in this group of countries given the recent fall in gasoline prices, particularly in those countries where this item contributes significantly to the computation of inflation. This could lead to a pause in the process of reference rate increases in some of these economies.

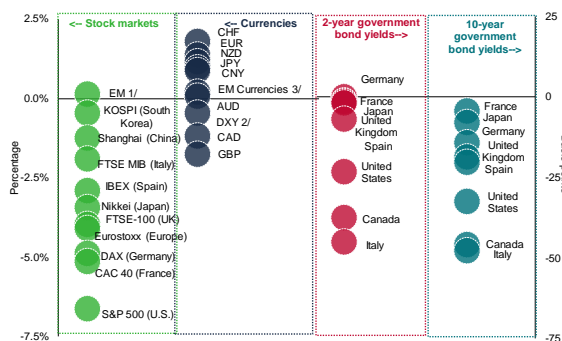
In this environment, and given the signs of an economic deceleration in advanced countries and the persistence of several risk factors, international financial markets displayed higher volatility in the last month, although they have exhibited some improvement in the last days (Chart 5 and Chart 6). In particular, despite the 90-day trade truce that the U.S. and China reached during the G20 Leaders' Summit in Argentina, several stock indexes fell significantly, between 3% and 5%. There were also outflows in corporate bond markets and the prices of these bonds fell significantly, while the demand for safe haven assets rose. In the fixed-income markets, government bonds' interest rates fell between 15 and 30 basis points. In the U.S., these adjustments were also due to expectations that the Federal Reserve may follow a more moderate pace of interest rate increases in 2019. It is worth pointing out that the yield curve on U.S. Treasury bills flattened considerably, even inverting for the first time since 2007 in some of its segments. Finally, in foreign exchange markets, the U.S. dollar depreciated moderately against the currencies of other major advanced economies.

**Chart 5**  
Selected Indexes of Implied Volatility  
Dec.31, 2015=100



1/ VIX: Weighted index of volatility implied in 1-month options for the S&P500 published by the Chicago Board Options Exchange.  
2/ V2X: Weighted index of volatility implied in 1-month options for the Euro Stoxx50 published by Deutsche Borse and Goldman Sachs.  
3/ CVIX: Index of volatility implied in 3-month most traded foreign exchanges with the following weights: EURUSD (35.9%), USDJPY (21.79%), GBPUSD (17.95%), USDCHF (5.13%), USDCAD (5.13%), AUDUSD (6.14%), EURJPY (3.85%), EURGBP (2.56%), and EURCHF (1.28%).  
4/ MOVE: Index of volatility implied in at-the-money options with a 1-month maturity over T-bills with 2-year, 5-year, 10-year and 30-year maturities. Index calculated by Merrill Lynch.  
5/ OVX: Weighted index of volatility implied in 1-month crude oil options.  
Note: The vertical line represents Banco de México's latest monetary policy decision.  
Source: Prepared by Banco de México with Bloomberg data.

**Chart 6**  
Change in Selected Financial Indicators  
(November 12 – December 12, 2018)  
Percent, basis points



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

In emerging economies, the prices of financial assets exhibited volatility due to several factors, among which the global trade tensions, the behavior of energy asset prices, as well as several geopolitical and idiosyncratic events, stand out (Chart 7). Thus,

both currencies and stock markets of these countries had a mixed performance, in an environment of high volatility. On the other hand, in most emerging countries, government securities' yield decreased, in line with the developments in fixed-income markets of advanced countries.

**Chart 7**  
**Performance of Emerging Economies' Assets**  
**since November 12, 2018**  
 Percent, basis points



Note: Interest rates correspond to 2-year and 10-year swaps, respectively. For the case of Argentina, interest rates in US dollars are used (since they are the most liquid ones and those that best reflect the performance of the fixed-income market in that country).  
 Source: Bloomberg.

There are risk factors that could create greater volatility in markets and which are foreseen to persist in 2019. Among these are a lower rate of growth and the possibility of a further deterioration in household and business confidence due to the trade tensions between the U.S. and other countries. In particular, although China and the United States have agreed on a trade truce, uncertainty prevails as to the possibility of a long-term agreement that prevents economic dynamism from deteriorating and global production chains from being affected. There is also

a series of political risk factors such as the Brexit negotiations, the negotiation of the fiscal budget in Italy, and idiosyncratic events in emerging economies. Finally, the high valuations of certain financial assets and the high leveraging of the corporate sector in some advanced economies continue being latent risks.

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

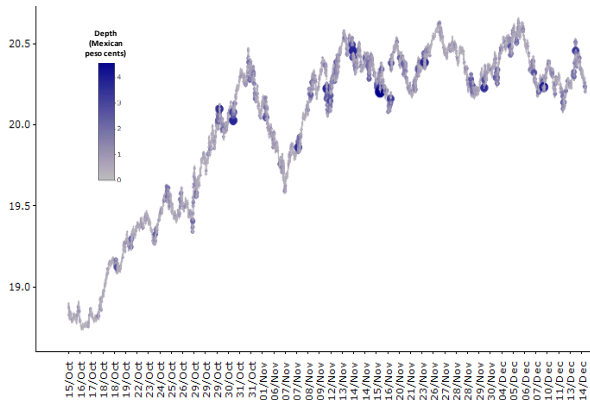
### A.2.1. Mexican markets

In the weeks after Banco de México's last monetary policy decision, the prices of financial assets in Mexico exhibited once more a negative performance, in an environment of high volatility. In addition to the aforementioned external factors, domestic markets were significantly sensitive to the uncertainty regarding the economic policies to be implemented by the new administration and news related to legislative initiatives. Nevertheless, in the days prior to the monetary policy decision of December, a slight improvement was observed in the behavior of Mexican financial assets, due, among other factors, to the 2019 economic package submitted by the federal government.

The Mexican peso was traded at levels above 20 pesos per U.S. dollar during the entire period (Chart 8), in a context where operating conditions in the foreign exchange market remained stable practically throughout the entire period (Chart 9). Similarly, forward-looking conditions implied in exchange rate options (FX options), such as volatility and bias toward depreciation in the short term, stabilized, albeit at high levels vis-à-vis those reached three months ago. Finally, exchange rate expectations of different financial institutions were revised upwards once more. For 2018, economists adjusted their forecast for the end of the year from 19.63 to 20.20 pesos per U.S. dollar, while for the end of 2019, from 19.35 to 20.63 pesos per U.S. dollar (Chart 10).

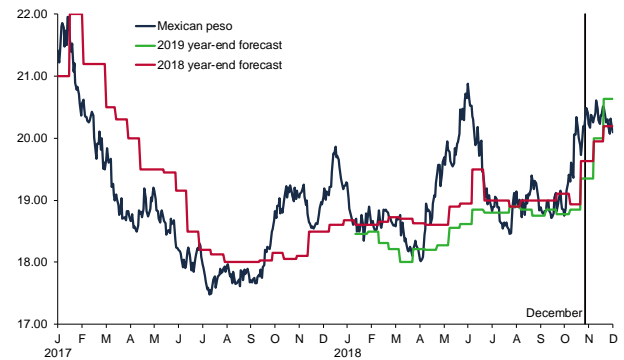


**Chart 8**  
**Mexican Peso and Intraday Depth**  
 Pesos per US dollar



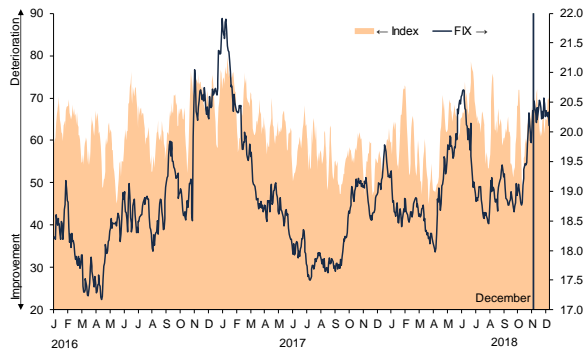
Source: Calculated by Banco de México with "tick by tick" data from Reuters Matching platform.

**Chart 10**  
**Forecasters' Expectations for the Exchange Rate for the End of the Year**  
 Pesos per US dollar



Note: The horizontal line represents the date of Banco de México's latest monetary policy decision.  
 Source: Bloomberg and Citibanamex Survey.

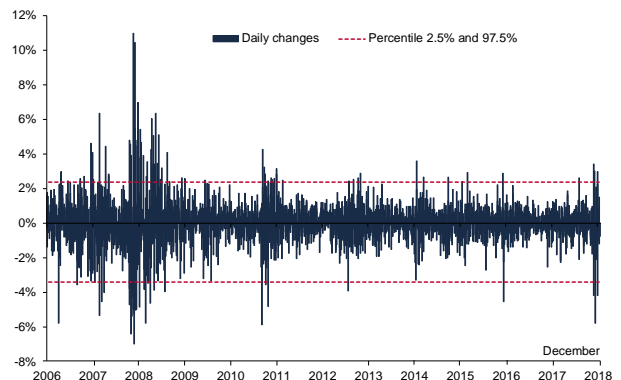
**Chart 9**  
**Mexican Foreign Exchange Market Operating Conditions and Peso-dollar Exchange Rate**  
 Index (5-day moving average), pesos per US dollar



Note: Index calculated using the mean, volatility, skewness, kurtosis, bid-ask spread and mean of simple differentials all of them related to quotes of intraday operations, and the total traded volume. After obtaining this data, the percentiles since 2011 are calculated and the average of the 7 percentiles for each day is considered. The black vertical line represents Banco de México's latest monetary policy decision.  
 Source: Prepared by Banco de México with Reuters data.

Mexico's equity market exhibited negative results. In particular, the BMV Mexican Stock Exchange Index (IPC, for its acronym in Spanish) fell by 6.9% during the period, reaching its lowest levels since March 2014 (Chart 11). In this context, it is worth highlighting that, after the fall in their share prices, different companies implemented buy-back programs, in order to signal confidence to their investors.

**Chart 11**  
**Daily Change in the BMV Mexican Stock Exchange Index (IPC, for its acronym in Spanish)**  
 Percent

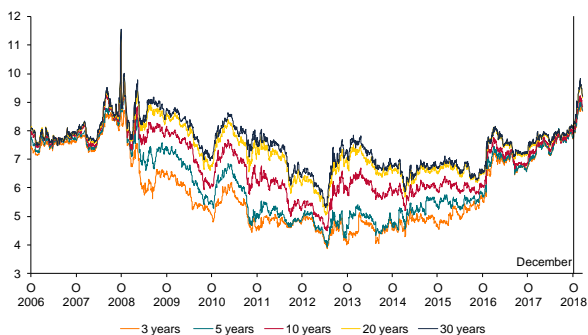


Source: Banco de México with Bloomberg data.

During most part of this period, interest rates on government bonds increased, mainly for long-term maturities. Nevertheless, in the days after the 2019 economic package was released, the yields along the entire curve decreased, partly reversing the above mentioned increases. The slope of the yield curve, measured with the spread between 30- and 3-year bonds, steepened by around 5 bps, to 53 bps. It

should be noted that during the same period yields reached their highest levels in ten years (Chart 12). The abovementioned took place in an environment of a significant deterioration of operating conditions, which improved slightly in the days prior to Banco de México's monetary policy decision (Chart 13).

**Chart 12**  
**Nominal Rates of Government Securities**  
Percent



Note: The vertical line represents the date of Banco de México's latest monetary policy decision.  
Source: PIP.

**Chart 13**  
**Index of Mexican Government Debt Market Operating Conditions by Type of Tenor**  
Index (10-day moving average)

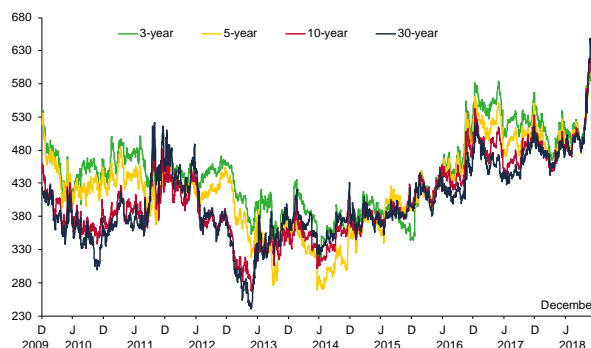


Note: Index calculated with the changes in bonds' interest rates, volatility of events, bid-ask spread, the average of the differences in quotes of intra-day operations, and the daily interbank and customer traded volume. Considering the aforementioned, percentiles since 2016 and the average of percentiles for every day is calculated. The vertical line represents the date of Banco de México's latest monetary policy decision.  
Source: Calculated by Banco de México with data from Bloomberg, PIP and brokerage firms.

The adjustment of sovereign risk premia in domestic equity markets (Chart 14) was also reflected in a widening of spreads between the yield of Mexican debt denominated in foreign currency (Chart 15), of other debt instruments placed by State Productive Companies and of Mexico City's New International Airport (NAICM in Spanish) bonds (Chart 16), relative to that of U.S. Treasury bonds. Such sovereign risk

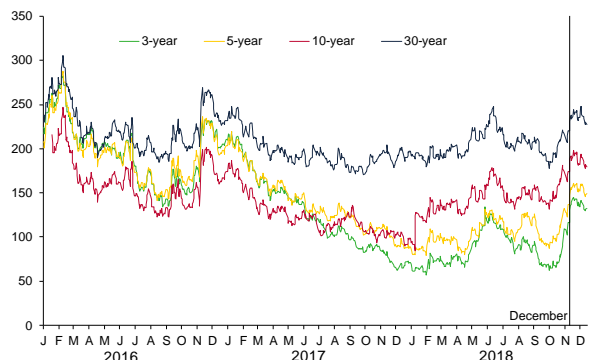
premia compressed after the proposal of the federal budget for 2019 was announced and Mexico City's airport managing operator (Grupo Aeroportuario de la Ciudad de México, GACM) launched a buy-back offer of bonds denominated in U.S. dollars for up to USD 1,800 million.

**Chart 14**  
**Spread between Nominal Interest Rates in Mexico and the United States in Mexican Pesos**  
Basis points



Source: Banco de México with Bloomberg data.

**Chart 15**  
**Spread between Nominal Interest Rates in Mexico and the United States in Foreign Currency**  
Basis points



Note: The vertical line indicates the date of Banco de México's latest monetary policy decision.  
Source: Banco de México with Bloomberg data.

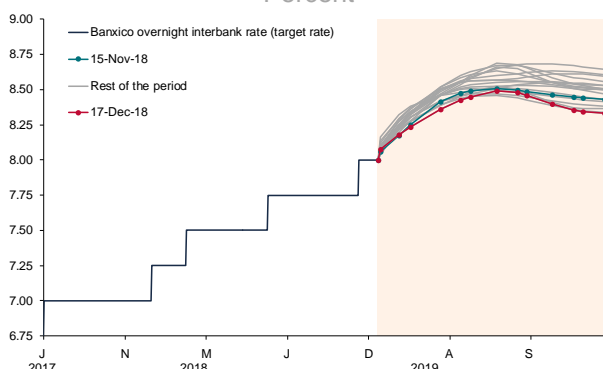
**Chart 16**  
**Yield on Mexico City's New International Airport**  
**(NAICM, for its acronym in Spanish) Bonds**  
 Percent



Note: The vertical line represents the date when the referendum on Mexico City's New International Airport (NAICM) concluded.  
 Source: Bloomberg.

Finally, expectations regarding the level of monetary policy's reference rate implied in the yield curve structure consider an increase of 25 bps for December's monetary policy statement (Chart 17) with a 70% probability. The above is in line with the consensus of the main forecasters. As to expectations regarding the reference rate for the end of 2019, the market anticipates such rate will reach 8.50%, while the median of forecasters' expectations is that it will reach 8.25% at that point.

**Chart 17**  
**Banxico Overnight Interbank Rate Implied in**  
**28-day TIIE IRS Curve**  
 Percent



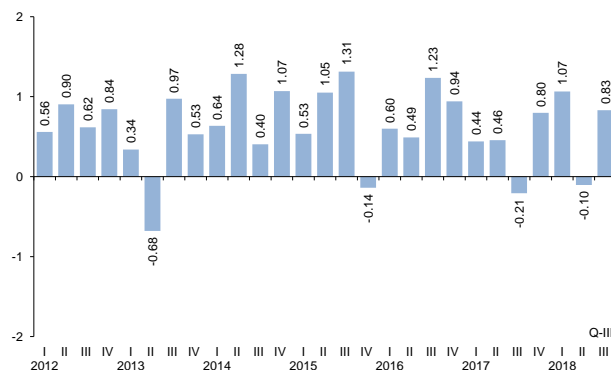
Source: Calculated by Banco de México with PIP data.

## A.2.2. Economic activity and determinants of inflation

During the third quarter of 2018, economic activity rebounded, after having contracted in the previous quarter (Chart 18). This behavior reflected the higher growth rate of non-oil exports, as well as the continuous expansion of private consumption. In

contrast, gross fixed investment remained on a negative trend. Although available information in this regard is limited, a certain deceleration in activity is foreseen for the fourth quarter vis-à-vis the third quarter.

**Chart 18**  
**Gross Domestic Product**  
 Quarterly percentage change, s. a.

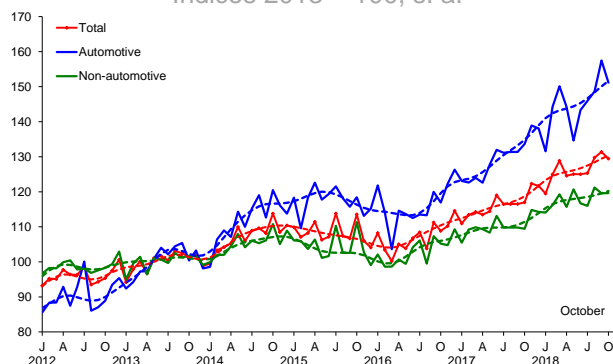


s. a. / Seasonally adjusted figures.

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

In particular, in October 2018, manufacturing exports declined, although they continue to exhibit a positive trend. The latter results reflected the fact that during that month non-automotive exports remained practically unchanged and that automotive exports fell (Chart 19). By destination, exports to the rest of the world continued to exhibit a weak performance, while those to the U.S. continued to trend upward. As for domestic demand, according to its monthly indicator, private consumption kept on expanding towards the end of the third quarter of 2018. At the beginning of the fourth quarter, revenues of retail stores, which are a more timely indicator of consumption, although of less coverage, continued to show a positive trend. In contrast, despite the increase observed in September 2018, gross fixed investment remained on a downward trend. The aforementioned reflected mainly the weakness of both investment in construction and spending in machinery and equipment.

**Chart 19**  
**Total Manufacturing Exports**  
 Indices 2013 = 100, s. a.

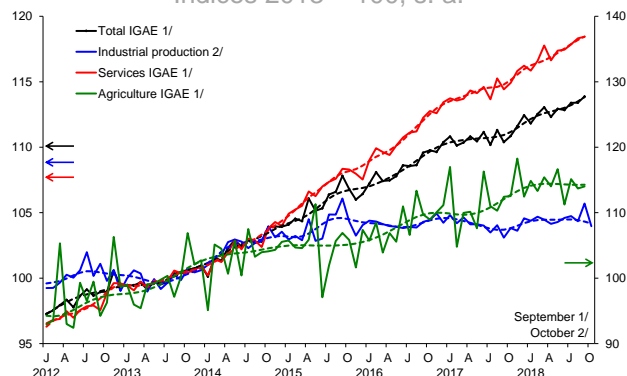


s. a. / Seasonally adjusted series and trend series. The former is represented by a solid line and the latter by a dotted line.

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

As for production, during the third quarter of 2018, the expansion of economic activity reflected mostly the continuous upward trajectory followed by services, although a certain loss of dynamism was observed towards the end of the quarter (Chart 20). The aforementioned was mainly the result of the contributions of the components of trade; accommodation and food services; management of companies and enterprises; arts, entertainment and recreation; finance and insurance; and real state and rental and leasing. Industrial production contracted significantly at the beginning of the fourth quarter, after having rebounded in September 2018. Manufacturing, in particular, reverted its performance relative to the rebound registered in the third quarter, while construction continued to show weak results, and mining, quarrying and oil and gas extraction continued trending downwards (Chart 21).

**Chart 20**  
**Global Index of Economic Activity**  
 Indices 2013 = 100, s. a.



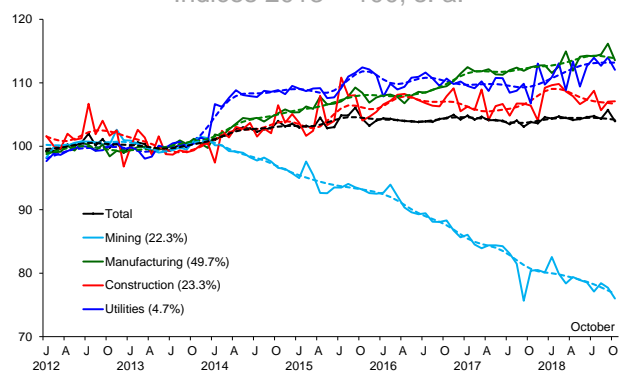
s. a. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line.

1/ Figures up to September 2018.

2/ Figures up to October 2018 from IGAE's Monthly Industrial Production Index.

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

**Chart 21**  
**Industrial Activity**  
 Indices 2013 = 100, s. a.



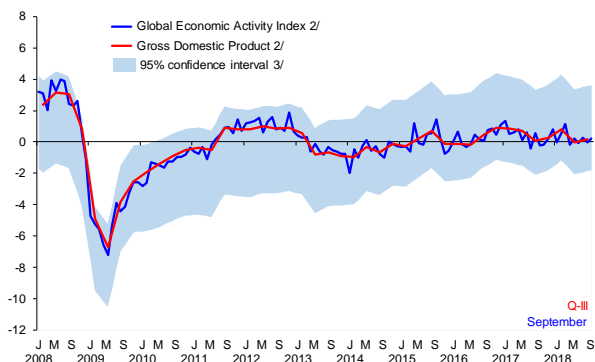
s. a. / Seasonally adjusted series and trend series. The former is represented by a solid line and the latter by a dotted line.

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

As for the economy's cyclical position, slack conditions are considered to have remained less tight than those observed at the beginning of the year (Chart 22). In regards to the labor market, both national and urban unemployment rates remained at low levels at the beginning of the fourth quarter (Chart 23), while the number of IMSS-insured jobs continued following an upward trend, albeit with a slight deceleration. The fact that the urban unemployment rate registered its lowest level since INEGI's first National Survey of Occupation and Employment (ENOE, for its acronym in Spanish) was conducted in 2005 deserves mention. At the beginning of the last quarter of this year, unit labor costs of the manufacturing industry continued to trend upwards (Chart 24).

**Chart 22**  
**Output Gap Estimates <sup>1/</sup>**  
**Excluding Oil Industry <sup>4/</sup>**

Potential output percentages, s. a.



s. a. / 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 third quarter of 2018; IGAE figures up to September 2018.

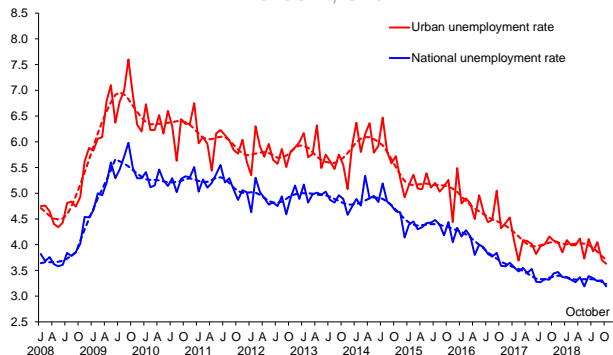
3/ Output gap confidence interval calculated with a method of unobserved components.

4/ Excludes both oil and gas extraction, support activities for mining, and petroleum and coal products' manufacturing.

Source: Prepared by Banco de México with INEGI data.

**Chart 23**  
**National Unemployment Rate and Urban Unemployment Rate**

Percent, s. a.

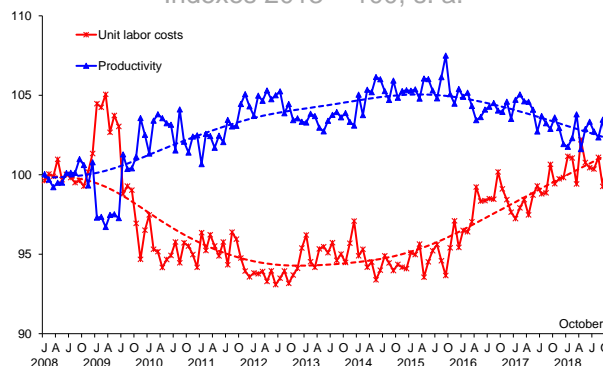


s. a. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line.

Source: National Survey of Occupations and Employment (ENOE, for its acronym in Spanish), INEGI.

**Chart 24**  
**Manufacturing Labor Productivity and Unit Labor Costs <sup>1/</sup>**

Indexes 2013 = 100, s. a.



s. e. / Seasonally adjusted and trend series. The former is represented by a solid line and the latter by a dotted line. Trend series estimated by Banco de México.

1/ Productivity based on hours worked.

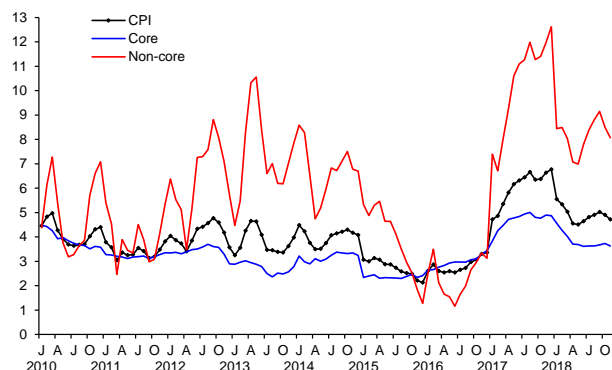
Source: Prepared by Banco de México with seasonally adjusted data from the Monthly Survey of the Manufacturing Industry and the industrial activity indexes of Mexico's National Accounts, INEGI.

In October 2018, domestic financing to the private non-financial sector continued following the decelerating trend that began to be observed at the start of the third quarter of this year. The aforementioned was due to the moderate growth rate of financing to companies and to the persistently low growth rate of lending to households. The latter occurred in an environment where the costs of financing to companies increased vis-à-vis the first half of the year, while interest rates of credit to households remained, in general terms, at levels similar, on average, to the first half of 2018. Business and housing delinquency rates remained at low and stable levels, while indicators of consumption credit delinquency rates stopped deteriorating as they had been doing since the end of 2016, though they still remain at relatively high levels. Financing to the private non-financial sector has decelerated, in a context in which, from the perspective of financing sources, there was a contraction in the balance of domestic financial assets, which resulted from adjustments in the valuation of these assets in October 2018.

### A.2.3. Developments in inflation and inflation outlook

Between October and November 2018, annual headline inflation fell from 4.90% to 4.72%. This result is explained by the lower contributions of both its core and non-core components (Chart 25 and Table 1). It should be pointed out that non-core inflation remains high and that the shocks that have been affecting it have also influenced the development of core inflation through their indirect effects on production costs, which, together with other factors, has contributed to the high resistance to decline shown by this subindex.

**Chart 25**  
**Consumer Price Index**  
Annual percentage change



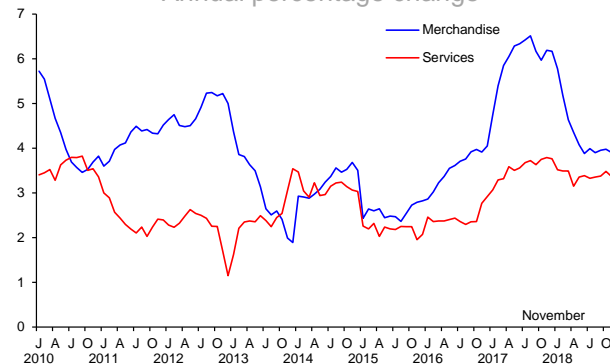
Source: Banco de México and INEGI.

Annual core inflation fell from 3.73% in October to 3.63% in November, due to the lower variations observed in the price subindexes of merchandise and services (Chart 26). In the case of merchandise, the annual rate of change of both food and non-food goods prices decreased, although that of food prices remains at high levels (Chart 27). In the case of services, the decline in their annual rate of change reflected mainly the lower price increases of services other than housing and education, especially those of tourist services (Table 1).

As for annual non-core inflation, it fell from 8.50% in October to 8.07% in November due to the lower increases in energy prices. This effect was partly offset by the higher increases in the prices of agricultural products, particularly those of fruits and vegetables (Chart 28 and Table 1).

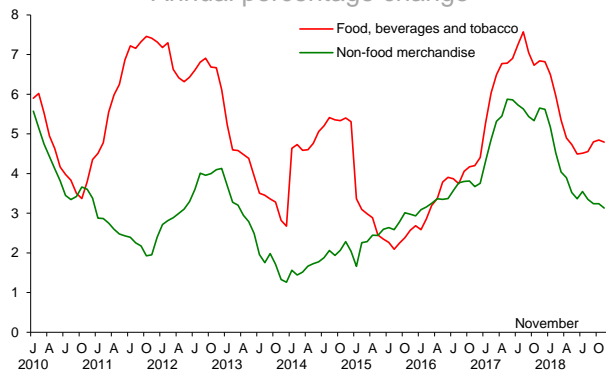
The medians for short-term inflation expectations drawn from surveys registered an overall increase. In particular, the medians for headline inflation expectations from Banco de México's Survey of Professional Forecasters for the end of 2019 and 2020 were adjusted upwards from 3.71% to 3.89% and from 3.50% to 3.79%, respectively, between October and December. This upward adjustment is attributed mostly to a significant increase in the expectations implied for the non-core component (from 4.51% to 5.10% and from 4.03% to 5.09%, respectively), given that the medians for core inflation increased to a lesser extent from 3.45% to 3.50% and from 3.33% to 3.37%, respectively). In line with the above, the medians for headline inflation expectations for the following 12 months, relative to the month in which data is collected and to the subsequent month, were revised upwards from 3.83 to 3.89% and from 3.80% to 3.87%, respectively. The median for headline inflation expectations for the medium term (next four years) increased by 5 bps to 3.55% in December's survey. In contrast, the median for longer terms (next five to eight years) remained stable at around 3.50%. However, as for medium- and long-term inflation expectations, it should be pointed out that: i) the medians for core inflation have increased in recent readings to levels close to 3.4%; and, ii) the levels of these medians are above the 3% inflation target. Finally, as for information drawn from market instruments, medium- and long-term inflationary risk premia remain high.

**Chart 26**  
**Merchandise and Services Core Price Subindex**  
Annual percentage change



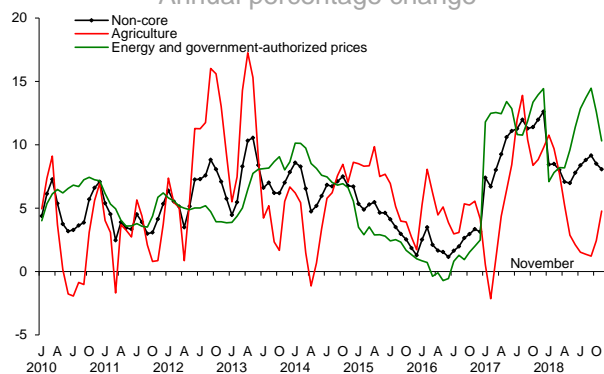
Source: Banco de México and INEGI.

**Chart 27**  
**Merchandise Core Price Subindex**  
 Annual percentage change



Source: Banco de México and INEGI.

**Chart 28**  
**Non-core Price Subindex**  
 Annual percentage change



Source: Banco de México and INEGI.

As for inflation forecasts, the higher-than-anticipated increases in fruit and vegetable prices are expected to affect the trajectory of annual headline inflation temporarily, but this indicator will afterwards resume a downward trend towards its 3% target, nearing it during the first half of 2020. Among the risks that inflation faces, the following stand out: that the peso exchange rate continues to be subject to pressures stemming from external and domestic factors; considering the magnitude of the recent minimum wage increases, in addition to their possible direct impact, these may bring about wage revisions that exceed productivity gains and create cost pressures, possibly putting pressure on prices and affecting formal employment; that pressures on agricultural product prices persist or that new increases in energy prices arise; that an escalation of worldwide protectionist and retaliatory measures materializes; that public finances deteriorate; and, that f) given the observed shocks and the levels reached by inflation, that second-round effects on the price formation process materialize. Additionally, there are risks of a structural nature arising from the possible adoption of policies that could lead to deep changes in the economy's price formation process. Considering all of the above, the balance of risks for the expected trajectory of inflation has deteriorated and is biased considerably to the upside, in an environment of high uncertainty.

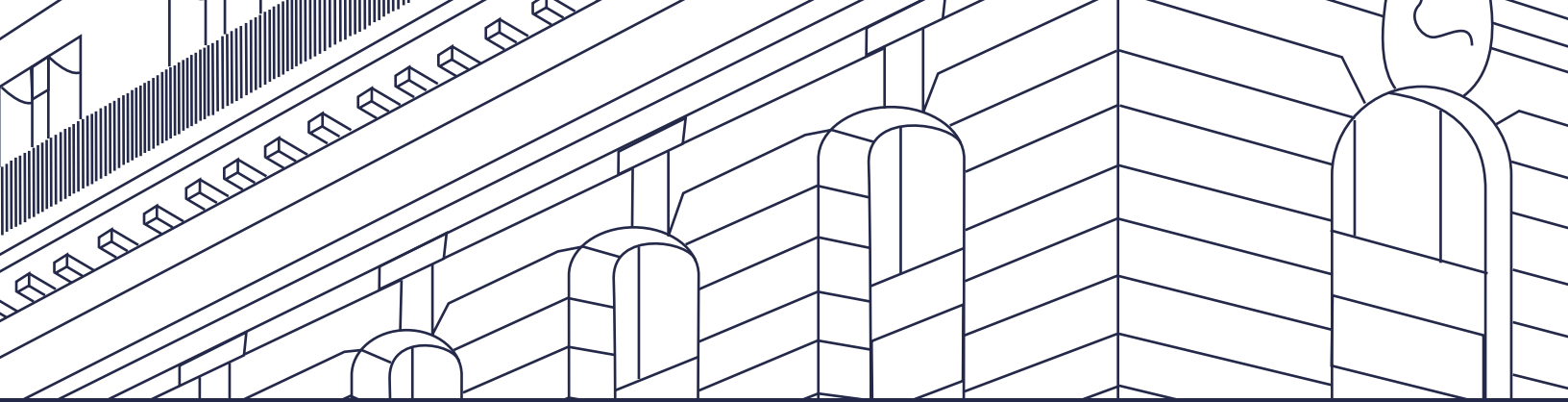
**Table 1**  
**Consumer Price Index and Components**  
 Annual percentage change

|  | December 2017 | October 2018 | November 2018 |
|--|---------------|--------------|---------------|
| <b>CPI</b>                                     | <b>6.77</b>   | <b>4.90</b>  | <b>4.72</b>   |
| <b>Core</b>                                    | <b>4.87</b>   | <b>3.73</b>  | <b>3.63</b>   |
| <b>Merchandise</b>                             | <b>6.17</b>   | <b>3.98</b>  | <b>3.90</b>   |
| Food, beverages and tobacco                    | 6.82          | 4.84         | 4.79          |
| Non-food merchandise                           | 5.62          | 3.24         | 3.13          |
| <b>Services</b>                                | <b>3.76</b>   | <b>3.48</b>  | <b>3.37</b>   |
| Housing  | 2.65          | 2.59         | 2.60          |
| Education (tuitions)                           | 4.74          | 4.69         | 4.69          |
| Other services                                 | 4.63          | 4.30         | 3.98          |
| <b>Non-core</b>                                | <b>12.62</b>  | <b>8.50</b>  | <b>8.07</b>   |
| <b>Agriculture</b>                             | <b>9.75</b>   | <b>2.43</b>  | <b>4.78</b>   |
| Fruits and vegetables                          | 18.60         | 2.06         | 6.02          |
| Meats, poultry, fish and eggs                  | 4.50          | 2.52         | 3.15          |
| <b>Energy and government-authorized prices</b> | <b>14.44</b>  | <b>12.62</b> | <b>10.30</b>  |
| Energy products                                | 17.69         | 17.10        | 13.26         |
| Government-authorized prices                   | <b>8.36</b>   | <b>3.45</b>  | 3.39          |

Source: INEGI.







BANCO DE MÉXICO®

Document published on January 3, 2018

