



### **Minutes number 63**

Meeting of Banco de México's Governing Board on the occasion of the monetary policy decision announced on November 15, 2018

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#### **FOREWARNING**

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#### 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:** November 14, 2018

#### 1.3. Participants:

Alejandro Díaz de León-Carrillo, Governor Roberto Del Cueto-Legaspi, Deputy Governor Irene Espinosa-Cantellano, Deputy Governor Javier Eduardo Guzmán-Calafell, Deputy Governor Manuel Ramos-Francia, Deputy Governor José Antonio González-Anaya, Secretary of Finance and Public Credit

Miguel Messmacher-Linartas, 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

Most members coincided that during the third quarter of 2018 the world economy continued to grow, albeit at a more moderate pace. Some members pointed out that the world economy is expected to continue growing, although mentioning that such forecasts have been revised downwards. Some members stated that this situation is due to the materialization of several risks that have been mentioned on previous occasions and which still persist. In this regard, most members agreed that world economic growth is subject to a high level of uncertainty and to the following risks: i) the intensification of international trade disputes; ii) a further tightening of financial conditions; and, iii) several political and geopolitical problems in some economies of systemic importance at the global and regional level.

One member added the vulnerability of some emerging economies and oil price volatility as risk factors to world economic growth.

As for the first aforementioned risk, one member referred to the adverse effects of world trade disputes, both those immediate and those in the medium and long terms, on world economic activity and trade. The same member stated that the probability that new tariffs between China and the United States come into effect at the onset of 2019 is still high. Another member emphasized the lower rate of growth of world trade, the fall in the Manufacturing Purchasing Managers' Indexes (PMIs), and that in recent quarters such trade disputes have included regions and countries whose economic slowdown might have implications. As for the second risk, the majority of members highlighted that a tightening of financial conditions is possible in case of a stronger-thanexpected cycle of monetary policy tightening in the main advanced economies, particularly in the United States. The latter, in view of the possibility of an excessive tightening of the U.S. economy's slack conditions. Nevertheless, one member highlighted the contrary; that is, the possibility of the Federal Reserve increasing its interest rate at a slower rate. or to a lesser extent, given that inflation seems to be decelerating. As to the third risk, one member mentioned the Brexit negotiations, which although appear to be in their final stage after having reached preliminary agreements, they are still subject to new delays and setbacks. The same member also stated the existence of prevailing concerns about the situation of Italy's public finances and financing in the short and medium terms and the sanctions the European Union authorities may impose on that country. Finally, one member highlighted the complexity and fragility characterizing the current environment, both because of the unprecedented factors that are present in the global economy as well as because of the significant cyclical and structural risks the world economy is facing.

Most members pointed out that the main advanced economies have continued to exhibit a divergent performance. Such members mentioned that in contrast to the economies of the Euro, Japan and United Kingdom, which have continued to grow below expectations, the economy of the United States continues to grow at high rates. In this regard, one member stated that both the mature cycle that the U.S. economy is undergoing as well as the procyclical fiscal policy implemented in that country were factors that contributed to the high growth rate during the third quarter of the year. Such member added that expectations of above-potential-growth rates for this year and 2019 prevail. One member

pointed out that, as the effects of the fiscal stimulus have gradually dissipated, the U.S. economy may undergo a strong deceleration.

As to the labor market in advanced economies, one member mentioned that the unemployment rate has continued to decline, reaching levels close to or below those registered prior to the crisis, while wages remained on an upward trend. As to the labor market in the U.S., some members pointed out that wage pressures have continued to intensify. One member emphasized that the unemployment rate has reached a historical low and that the outlook for wages and inflation has become highly uncertain, especially given the significant fiscal stimulus adopted. Nevertheless, one member stated that given the prevailing accommodative monetary policy stance and the fiscal stimulus implemented, what is surprising is that wages have not registered a greater dynamism, making reference as to how flat the Philipps curve currently is in that country.

As for emerging economies, some members stated that growth in these countries weakened during the third quarter of the year. The majority of members warned about the vulnerabilities that persist in some of these economies. One member drew attention to the fact that, especially for these economies, international financial volatility is a factor of pressure for macroeconomic and financial stability. In the case of the Chinese economy, some members stated that, as a consequence of the trade tensions with the U.S., several policies have been adopted to revamp economic growth and continue an orderly rebalancing of this economy. Nevertheless, one member highlighted that, under the current conditions, the risk of these measures being insufficient or implemented too late has increased, which could lead to a greater-than-expected slowdown in this economy's rate of growth. Another member stated that forecasts for growth for Latin American economies have been revised downwards, in response to the tighter financing conditions the region is facing, to the slowdown of world trade, and to the presence of idiosyncratic factors that have deteriorated growth expectations.

The majority of members warned that despite the evolution of international prices remaining relatively stable during the referred period, the balance of risks is biased to the upside. They also emphasized that in recent weeks a sharp reduction in energy prices was observed, as a result of the loosening of sanctions imposed by the U.S. on Iran, and to Saudi Arabia's difficulty to impose cuts on crude oil production. In this regard, one member added that if this situation continues, some of the pressures that have affected headline inflation worldwide could be

mitigated. Some members pointed out that U.S. inflation seems to be decelerating and remaining close to the Federal Reserve's target. However, one member noted that although no significant inflationary pressures are considered in the central bank's baseline scenario and, at the margin, such pressures have been smaller in response to the further strengthening of the U.S. dollar and the recent fall in energy prices, and despite the presence of structural factors supporting lower inflationary and wage pressures, such pressures cannot be ruled out. On the other hand, the same member also mentioned that in other advanced economies like Japan and the Eurozone, core inflation is still below their central bank's targets. Finally, another member stated that risks to inflation persist in emerging economies.

Most members mentioned that, as expected, in November the Federal Reserve left the target range for the federal funds rate unchanged and reiterated its forecast of increasing it gradually. One member pointed out that the Fed's conduction of monetary policy has been supported by significant communication efforts. Another member added that monetary conditions in the U.S. are further tightening via two channels: raises in the reference rate and U.S. dollar appreciation. The same member stated that inflation in the U.S. appears to be slowing down and, in this context, markets are anticipating only three additional increases in the federal funds rate from this date to the end of 2019: one in December 2018 and two during 2019. Nevertheless, some members noted that the possibility of unexpected increases cannot be ruled out. One member explained that such risk may have diminished due to the results of the recent mid-term elections in that country, considering that the opposition's majority in the U.S. House of Representatives may hold up the adoption of additional fiscal stimulus measures. Another member stated that both the strengthening of the dollar and expectations of greater inflationary pressures in the U.S. than in other advanced economies, have contributed to the significant divergence in monetary policy stances among these aroup of countries.

In this environment, most members noted that, in recent weeks, international financial markets underwent episodes of volatility, and the prices of emerging economies' assets posted negative results, differentiated according to each country's macroeconomic fundamentals and idiosyncratic factors. One member mentioned that such volatility further increased as a result of the sharp downward adjustment in crude oil prices and, to a lesser extent, to the reduction in other commodity prices. The same member added that a restructuring of investment

portfolios towards lower risk assets has been reflected in capital outflows from emerging economies' fixed income markets and, in general, in the economies' exchange rates and other financial assets exhibiting negative results. Another member pointed out that the increase in the entire U.S. yield curve along with expectations of corporate profits having already reached their highest levels and the outlook of a downturn in sales, led to a significant adjustment in stock markets. The same member explained that U.S. interest rates increased markedly for all terms, reflecting not only the effects of the increase in the federal funds target range in September, but also the announcement by the Federal Reserve's Chairman that the interest rate increase could exceed its neutral level. In particular. such member stated that the spreads of long-term interest rates between the U.S. and the Eurozone had reached their highest levels in decades. The same member also warned about the evolution of international financial markets being subject to risks associated mainly with the process of monetary policy normalization in the U.S., which may lead to a disorderly adjustment in interest rates and, in turn, to capital flows readjustments with major adverse effects on emerging economies. From a longer-term perspective, one member pointed out that, in response to the financial crisis of 2008, the Federal Reserve has adopted a highly accommodative monetary policy stance for a long time. The same member stated that, apart from its effects on aggregate demand in the U.S., the monetary stimulus also contributed to a greater diversification of portfolios, with an increasing exposure to emerging economies and a higher leveraging of companies in these economies. Such member pointed out that, given the above and considering both the magnitude and long timeframe under which the monetary stimulus has been in place in addition to certain financial vulnerabilities, the Federal Reserve established a strategy of gradual and preannounced monetary policy normalization. The same member stated that, nevertheless, adopting a significant fiscal stimulus through both tax cuts and higher government spending since the end of 2017 has made the U.S. economy's performance more complex and uncertain.

All Governing Board members highlighted that the latest information shows that the Mexican economy rebounded during the third quarter of 2018, after having contracted in the second quarter. As for aggregate demand, most members stated that the boost in economic activity has stemmed from the greater dynamism of manufacturing exports and from the upward trend followed by consumption. Nevertheless, the board warned about the persisting negative trend of investment. One member regarded

such trend as one of the most worrying features of growth composition in Mexico. The same member mentioned that gross fixed investment has remained practically stagnant since the second half of 2015 and that, as a share of GDP, it currently exhibits levels that are around the lowest in the last 12 years. Such member argued that this represents one of the main factors behind the economy's modest potential growth rate, which such member estimates to be around 2.5% in annual terms, and which may be decreasing further due to the weakening of investment. As for production by sector of economic activity, most members stated that the growth of production resulted from the dynamism of the services sector. Some members added the improved performance of industrial activity vis-a-vis the previous quarter, highlighting the recovery of manufacturing. One of the members emphasized the continuing deterioration of mining, quarrying and oil and gas extraction, particularly the downward trend of oil and gas extraction.

As to the forecasts for economic activity, one member stated that gross fixed investment is expected to fall once again during the quarter due to the negative performance of both construction and machinery and equipment of domestic origin. Another member added that consumption is anticipated to decelerate, while other members mentioned that public spending is expected to decrease. Some members pointed out that the forecast for Mexico's GDP growth for 2018 and 2019 remains within the ranges published in Banco de México's last Quarterly Report. Nevertheless, one member noted that the growth environment for 2019 is highly uncertain since there is no available information on the details of the economic package or the specific public policy strategies of the incoming administration for next year. Another member argued that both relevant international entities and private sector experts have revised downwards the growth forecasts for Mexico and some of whom have revised their estimate for 2019 to even below 2.0%.

Most members pointed out that, from a cyclical perspective, the balance of risks for growth continues biased to the downside and has deteriorated at the margin, due mainly to both the complex external environment faced by the Mexican economy and the abovementioned domestic uncertainty factors. Some members added that this bias to the downside appears in both the short- and medium-term timeframe. One of the members noted that, although this bias may have decreased given the trade agreement reached between Mexico, Canada and the U.S., other elements of uncertainty persist. In addition to the abovementioned global risks, most members mentioned possible obstacles

to the ratification of the U.S.-Mexico-Canada Agreement (USMCA), due mainly to the recent change in the U.S. Congress membership composition. In this regard, one member further elaborated that several leaders of the U.S. Democratic Party have declared their intention of modifying the USMCA. As an additional risk, most members pointed out the downward adjustment cycle of public spending that is generally observed during the transition process and the installment of a new administration. Some members also mentioned the risk of the persistence and intensification of the factors that have contributed to an environment of uncertainty and reduced confidence in the outlook for the Mexican economy as a result of the public policy actions the incoming administration may adopt or of the lack of clarity about such policy actions. Additionally, one member argued that there are significant medium-term risks, such as: i) the possible adoption of public policies that could affect the macroeconomic environment, the economy's price formation process, and the growth potential; ii) the greater uncertainty regarding the actions that will be adopted in the next years to increase Mexico's productivity and the adequate use of production factors; and, iii) the public insecurity, corruption, impunity, and the absence of rule of law which affect negatively investment and economic growth forecasts.

Most members estimated that slack conditions tightened slightly as compared to those of the previous quarter, although they remain less tight than those observed at the beginning of the year. Some members considered that the economy's cyclical position have not changed significantly since the previous monetary policy decision. Nevertheless, one member noted that perhaps the most relevant consideration is that such conditions have become less tight, at a slower and lower rate than expected, which has contributed to the persistence exhibited by core inflation. In this regard, one member pointed out that, although slack conditions remain neutral. except for the labor market, this situation has not been sufficient to make inflation resume its downward trajectory. Particularly, as to the output gap, one member stated that, given the recent evolution of economic activity, its estimates are currently around zero, regardless of whether oil production is included or not in such estimates. The same member noted that this conclusion is also supported by information drawn from a wide set of slack indicators across diverse economic sectors. On the other hand, in regards to labor market conditions, most members emphasized that these remain tight. One member pointed out that the unemployment rate measured by different indicators stabilized at low levels and also that the indicator

with national coverage remains below the estimates of its long term level. Another member explained that wages have increased slightly, although one member considered that no excessive upward pressures on wages are observed so far. The same member also noted that, since the Mexican economy is expected to grow slightly below potential during the next two years, no demand-related pressures are anticipated. Nevertheless, the same member stated that labor market conditions must be monitored closely. Another member also emphasized the importance of evaluating the labor market conditions, their effects on the price formation process, and the policies that are to be adopted in this regard by the incoming administration. The same member highlighted that it is particularly important that wage negotiations are associated with productivity gains and do not imply a generalized cost pressure on the economy or affect the price formation process. One member insisted that, in his/her viewpoint, although assessing the stage of the business cycle that the economy is undergoing continues to be relevant, it has lost importance for monetary policy decisions, in the context of a significant increase in uncertainty and of role monetary policy must play in coping with such uncertainty.

Most members stated that, in October, headline inflation registered 4.90%, reflecting the increments in energy prices that have prevailed since June, mainly those of gasoline and LP gas. One member underlined that annual headline inflation remains above the 3% target. Another member pointed out that headline inflation has begun to decrease but remains high and continues above Banco de México's forecasts. The same member specified that the recent decrease of headline inflation is explained by the behavior of non-core inflation. Most members agreed that the increasing energy prices —arising from the evolution of their international references and, in the case of gasoline, from a decrease in the fiscal stimulus applicable to their domestic prices have contributed to the high levels of non-core inflation that have persisted for a long period. Nevertheless, the majority stated that it has begun to decrease. One member explained that non-core inflation decreased from 8.90 to 8.50% between the first half of September and the first half of October due once more to the variation in energy prices and the effect of a high base of comparison in the prices of these commodities. As for core inflation, most members considered that it has exhibited a high degree of resistance to decline, even increasing from 3.67% in September to 3.73% in October. The same members pointed out that the shocks on energy prices have also affected core inflation, due to the indirect effects that these shocks have had on the production costs of some core inflation components. One member underlined that core inflation has been further affected by the behavior of the peso exchange rate and has begun to exceed Banco de Mexico's forecasts. Some members noted that the rise in food merchandise prices further contributed to the increase in core inflation. Most members explained that, in addition to energy prices, the core component has been affected by the price increases of services other than education and housing. In this regard, one member pointed out that the component of services sector, which reflects the prices of non-tradable goods, has remained above the 3% target and exhibits an upward trend.

Most members underlined that expectations for headline inflation for the end of 2018 drawn from surveys have been revised from 4.50% to 4.61% between September and October, while those for the end of 2019 continue at around the same level. Most members agreed that expectations for headline inflation for the medium and long terms remain around 3.50%. Nevertheless, one member highlighted that these remain above the target. Most members added that expectations for core inflation for the end of 2018 were also adjusted upwards, from 3.53 to 3.59% during the same months, while those for the end of 2019remained practically unchanged. On the other hand, the majority of members noted that the spreads between nominal and real yields on government securities suggest a considerable increase in inflationary risks in the medium- and long-terms. In this regard, one member pointed out that the compensation for inflation and inflationary risk implied in the spreads between nominal and real rates for different tenors has increased between 21 and 43 basis points. Another member mentioned that, since the last monetary policy decision, the spread for 30-year instruments picked up by 78 basis points. Such member stated that such spread is comprises, besides and expectations, several risk factors. Nevertheless, the same member mentioned that the higher spread reflects a significant increase in risk perception by markets, regarding the path to be followed by inflation in the medium and long terms. One member made clear that the increase in inflationary risk premia reflects the increase in the risks that affect inflation in the short, medium, and long run as, indeed, such risks affect inflation and its expectations since they emerge and up to the long run.

Most members pointed out that inflation forecasts were revised upwards. Some members also mentioned that in the absence of an adjustment in monetary policy, the process of convergence of inflation to its target would be further delayed. These

members noted that the upward revision of the forecasts is due to the higher-than-expected increases in both core and non-core inflation. Most members also highlighted that this revision includes a higher expected trajectory for both the exchange rate and energy prices. One member underlined that the higher-than-expected price increases observed in the different services other than education and housing, are tilting inflation projections upwards.

All Governing Board members considered that the balance of risks to the expected trajectory of inflation has deteriorated and exhibits a significant upward bias, in an environment of high uncertainty. One member noted that some upward risks to inflation have materialized in recent months, in an adverse external environment with significant factors of domestic uncertainty. Another member mentioned that the balance of risks for inflation may be in the process of becoming even more adverse. The same member argued that some of the risks are of a cyclical nature, while others are structural.

As to the main upward cyclical risks, most members highlighted that the peso exchange rate may continue to be subject to pressures stemming from external and domestic factors; a possible escalation of protectionist measures worldwide; the risk of additional pressures on energy prices or increases in the prices of agricultural products; that public finances deteriorate; and, that wage negotiations are not consistent with productivity gains. Another member underlined that wage pressures could arise due to the persisting tightness of labor market conditions. Regarding the shock to the peso exchange rate, the same member mentioned that, although both its persistence and final magnitude are still uncertain, the factors that triggered it suggest an adjustment in the equilibrium real exchange rate that will have an impact on prices. Finally, some members expressed their concern that, given the magnitude of the observed shocks and the level of inflation, there is also the risk of second-round effects affecting the price formation process insofar as new shocks continue to arise.

As for factors of a more structural nature, most members agreed that inflation faces significant risks related to the possible adoption of policies that could affect the economy's price formation process. One member added that the adoption of such policies could also have an impact on the attainment of the inflation target within the expected timeframe. Another member stated that, in his/her opinion, currently there is no sense in assessing each of the balances of risks to growth and inflation independently because both are strongly intertwined. In this context, the same member

highlighted that diverse risks have been present for several years. Nevertheless, the same member noted that, in the last months, three specific risks that may have considerable and deep adverse effects on inflation and, in general, on the economy's operating conditions are emerging at an increasing speed: i) an adverse shock to potential growth; ii) a strong and fast deterioration in the conditions of access to international market financing; and, iii) the possible unanchoring of inflation expectations that may even lead to a situation of fiscal dominance. The same member stated that the above-mentioned risks interact and mutually reinforce each other. The member also listed the factors that he/she deems are affecting these risks to a greater extent: i) the uncertainty regarding the direction that economic policy will take in general in the next years; ii) the management and structural vulnerability of public finances; iii) the possible indexation of wages to inflation; iv) the goals and guidelines on energy policy outlined so far; v) the possibility of implementing selected investment requirements for Retirement Funds Administrators (Afores) and their impact on public finances; vi) the uncertainty as to the effectiveness of the policies that will be implemented to fight the serious problems of corruption and insecurity; vii) the discussion regarding the impossibility of monetary policy affecting the economy's potential output; viii) the serious impact of using international reserves to finance public spending may have; and, ix) the possibility that the trade agreement between the three North American countries is reverted given the new membership composition of the U.S. House of Representatives. As for the indexation of wages to observed inflation, the same member explained that this type of policies give rise to a large inflationary inertia. The same member stated that there is wide evidence in the economic history of Mexico and of other countries, showing that the implementation of formal or informal indexation mechanisms on the economy propitiate the risk of losing control on inflation, affecting the target population that such mechanisms seek especially to protect. The same member concluded that besides the fact that the economy has shown for several years numerous characteristics that make the attainment of the 3% inflation target difficult -which is reflected in longterm inflation expectations being persistently around 3.5%- looking forward, the economy faces in his/her opinion, a major risk of de-anchoring of such expectations. Such member ended his/her intervention by expressing his/her concern about the materialization of such risks and how this would make the economy operate indefinitely with a higher inflationary bias and smaller growth.

Some members said that after the presidential elections last July, there were clear signs of tranquility in the national financial markets. They mentioned that the transition team's speech, which emphasized the intention to maintain macroeconomic equilibria, as well as announcement of the trade agreement reached in North America, contributed to such environment. However, most members considered that since the last monetary policy meeting such markets were subject to significant pressures due to both external and domestic factors. Among the external factors, the majority mentioned the high volatility registered in the international financial markets during recent weeks. In this respect, a member emphasized the widespread risk aversion feeling in such markets, as well as the observed strengthening of the U.S. dollar. Most members noted that within the internal factors that affected national financial markets are: i) the announcement regarding the cancellation of the New Mexico International Airport; ii) concerns about Pemex' business model: iii) uncertainty associated with certain legislative projects, and, iv) the impact of several of these measures, as well as of some public spending projects and of uncertainty in financial markets, on public finances. Some members considered that internal factors were the main ones affecting the recent evolution of markets. emphasizing one of them that, instead of alleviating the greater tensions in the external environment. several of the actions considered or implemented had the opposite effect. The majority highlighted that, as a result of all the aforementioned factors, the exchange rate registered an important depreciation and an increase in its volatility, medium- and longterm interest rates in domestic and foreign currencies increased, and sovereign risk indicators deteriorated. Some members added that the stock market registered a significant fall. A member pointed out that, within emerging economies, Mexico presented the worst performance in the four mentioned indicators from October 17 to date. In this regard, another member expressed that the recent movements in the exchange rate reverted the appreciation that had been registered along the year. and that the Mexican peso stopped differentiating itself with respect to other emerging economies. Some members mentioned that despite the latter, trading conditions in the foreign exchange market remained stable during the period. With respect to interest rates, some highlighted that medium- and long-term ones reached their highest levels in the last 10 years. One of them added that recent increases in the yield curve are comparable to those observed after the US presidential election in 2016 and during the episode known as Taper Tantrum in 2013. Another member pointed out that, unlike in the foreign exchange market, there were significant effects in the fixed income market, emphasizing that interest rates moved abruptly under low liquidity conditions. With respect to the stock market, one member said that since the consultation regarding the possible cancellation of the New Mexico International Airport was announced, the Mexican stock market has accumulated a 10% fall. Likewise, such member noted that as a result of the legislative project about banking commissions, financial groups have presented the greatest adjustment within the stock market. Finally, regarding sovereign risk indicators, such member mentioned that CFE and Pemex bonds have also been affected, and concluded that local risk premia have increased significantly.

The majority of the members argued that under the circumstances described, an environment of greater uncertainty for the country's macroeconomic framework has been generated. Some members emphasized that such environment entails important medium- and long-term risks that may affect the country's macroeconomic conditions, its growth capacity and the economy's price formation. The majority considered that investors' confidence on the domestic economy has deteriorated as consequence of the abovementioned. One member that there is uncertainty regarding infrastructure projects, the rule of law, and the fulfillment of existing contractual commitments while another one highlighted doubts about the basis for decision making in the new administration. In this context, the majority of members stressed that rating agencies have expressed concern about the management of public finances and about the energy policy of the incoming administration, prompting some of them to change the sovereign debt's perspective from stable to negative. One member argued that the latter has impacted the country's competitive position since it could lead to reduced access to sources of financing. Moreover, some members mentioned that foreign investors have reduced their exposure to domestic assets. One member highlighted that while the Mexican financial system has enough capital and liquidity to face adverse shocks, the environment of external and domestic uncertainty, the increase in the cost of financing, and the prospect of weaker economic activity could pose significant challenges to the country's financial institutions. The majority of the members agreed that it is necessary to undertake public policy actions aimed at strengthening confidence on the domestic economy and providing certainty to investors. One member highlighted that, otherwise, the market deterioration observed during the last days could lead to a much more complex situation. The same member expressed that in an economy as open to external capital flows as the

Mexican, the margin of error is extremely narrow. given that the markets' response is immediate and can potential consequences considerable. Another member mentioned that maintaining appropriate public policies would contribute to avoid vulnerabilities that could lead to a restructuring of portfolios and capital outflows. The majority pointed out that among the aforementioned policies, it is necessary to maintain healthy public finances and establish policies oriented towards increasing the country's productivity, strengthening the rule of law, and fighting corruption, impunity, and public insecurity. The majority also indicated that it is essential to have an environment with clear rules of the game and solid institutions that encourage private investment. A member pointed out that, only in this way will it be possible to increase the potential growth rate of the economy, indicating that currently the maximum growth rates that are compatible with an environment of stability are modest and may even be declining. A member expressed that achieving healthy public finances is not only a matter of willingness, but also implies confronting the scarce margins that are available for its management. The same member mentioned that the unavoidable government expenditures must be considered, which include transfers to the states, pension payments, and the cost of public debt. In this respect. the member added that the recent deterioration of financial markets has resulted in an increase in the cost of financing for the government, reducing even more the scope of action. Such member also considered that if taxes in the border zone were reduced, it would undermine fiscal revenues. generating additional pressures on public finances. In addition, the same member stated that the details of the fiscal program to be approved will be crucial to reinforce the confidence in the Mexican public sector. Other member noted that additional concerns exist with regard to the financing of public expenditure and cautioned that if policies that may cause an additional deterioration of the public finances were implemented, this would generate an environment of slow growth and high inflation, and in such an environment monetary policy would lose its effectiveness.

Regarding the factors that influenced the monetary policy decision, the majority of the members emphasized that the outlook of inflation has deteriorated significantly in both the short and medium terms. Concerning the more adverse environment that inflation faces on the short-term, the majority stated that core inflation has shown high resistance to diminish. The majority mentioned that, in addition to the above, there is the possibility of public policy actions that hamper the process of reduction of inflation, and also that there are new

shocks arising from the depreciation of the peso, which will continue to be subject to pressures.

Regarding the medium term outlook, the majority affirmed that the current environment of uncertainty presents risks for the nominal functioning of the economy and for its growth capacity. One member added that the depth and duration of the shock to national financial markets -including the exchange rate shock— is still uncertain, and that such shock interacts simultaneously with other adverse factors, such as the fall of the oil production platform and its consequences on the trade balance and public finances, the slow growth of the Mexican economy, as well as the uncertainty that still prevails over the formalization of the new trade agreement with the United States and Canada. The majority agreed that in case that this environment prevails, a period of weak economic growth and possible persistent inflationary pressures could occur. In this situation, monetary policy effectiveness is lower and its conduct is considerably more complicated. Most members noted that monetary policy should respond prudently in case that economic uncertainty increases significantly due to various reasons. In this regard, one member argued that monetary policy plays a fundamental role in managing such uncertainty, which possibly implies acting even more prudently than Banco de México has been doing up to now. In this context, such member pointed out that under the current conditions, cyclical considerations -on which central banks' decisions are usually based— have a lower weight. Such member added that structural factors have instilled a strong persistence on headline and core inflation, and that many of such factors are being reflected in the unfavorable evolution of total factor productivity. The same member highlighted that under the current economic conditions, the real exchange rate shows a strong pressure to depreciate, while medium- and long-term interest rates face upward pressures. Such member warned that the upward pressures on interest rates appear through two channels: an increase in inflation expectations and a rise in the term premium demanded by investors on Mexican financial assets. The same member indicated that the inflation risk premia increase as inflation expectations deteriorate, which would cause the economy to present a higher inflation bias. Such member concluded that an environment such as the one described should be accompanied by a tighter monetary policy stance by the central bank over time.

In this context, all of the members agreed that it is essential to adjust the monetary policy stance in order to allow inflation to converge to the target during the forecast horizon, considering that in the

current environment the possibility of headline inflation delaying its convergence to its target has increased. One member warned that achieving the inflation target seems complicated, even considering a decline in core inflation. All the members highlighted that the adjustment should be done in order to preserve the central bank's credibility and send a clear signal of its commitment to the attainment of the inflation objective. One member emphasized that adjusting monetary policy is fundamental considering that under an inflation targeting regime the economy's anchor is the credibility in the inflation target itself, which depends on the confidence in the sustainability of public finances and on the conduct of prudent monetary policy. Such member pointed out that the significant adjustments in domestic markets, in magnitudes larger than those in other emerging economies, are a response to a shock whose depth and duration is still uncertain, which in his/her opinion the reference rate must be raised by 50 basis points in order to attain inflation's convergence during the forecast horizon, taking into account the risks that have materialized as well as the possibility that such risks deteriorate in the near future. Likewise, the same member considered that the current conditions justify a response from Banco de México equivalent to those implemented when facing similar financial tensions, such as those in 2016 and in the beginning of 2017. Such member underscored that, in a situation as the one described, the risk of a deanchoring of inflation expectations exists and, thus, a forceful response from the central bank is needed. Another member concurred that monetary policy faces a complex environment characterized by an inflation rate above the central bank's forecasts, a persistently elevated core inflation, a significant exchange rate depreciation, an upward biased balance of risks to inflation that has deteriorated, and a greater risk of second-round effects, which would justify considering a 50 basis point adjustment to the monetary policy rate. Nonetheless, such member concluded that a 25 basis point increase is more convenient taking into account the decline that inflation is showing, that announcements on key decisions on fiscal and wage matters are still pending during the next weeks, that demand-side pressures on prices are not anticipated, and that the outlook of a rate of growth below potential with a balance of risks to the downside would contribute to mitigate inflationary pressures. Another member stated that, in his/her opinion, although it is convenient to modify the objective for the reference rate, currently a single 25 basis point increase is far from being sufficient to realign the expected trajectory of inflation to its target of 3% in general, not only within the forecast horizon. Finally, all members noted that Banco de México's communication should point out that the Mexican economy faces additional risks that could imply considerable challenges for the inflation reduction process, affecting the price determination process, and that, consequently, additional adjustments of the reference rate may be required, even in the short run according to one member. Another member emphasized that the Board must be prepared to observe higher interest rates along the yield curve.

#### 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 anticipated 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 considerably. In this context, and considering that the balance of risks for inflation is biased upwards and that it has deteriorated significantly, Banco de México's Governing Board has decided by majority to raise the target for the overnight interbank interest by 25 basis points to 8.00%. One member voted for increasing the rate by 50 basis points. Considering the challenges that have been faced 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 possibly strengthening the current monetary policy stance, so that headline inflation converges to Banco de México's target within monetary policy's period of influence.

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, Roberto Del Cueto-Legaspi, Manuel Ramos-Francia and Javier Eduardo Guzmán-Calafell voted in favor of raising the target rate by 25 basis points to 8.00%.

Irene Espinosa-Cantellano voted in favor of raising the target rate by 50 basis points to 8.25%.

#### **5. DISSENTING OPINIONS**

Vote. Irene Espinosa Cantellano

The adjustments that local financial markets have experienced since the last monetary policy decision have been significantly larger than those in other emerging economies. This situation responds mainly idiosvncratic factors. Indeed. announcements that the incoming administration has made regarding public policies and various legislative initiatives have generated a climate of uncertainty about the direction the national economy will take, the sustainability of public finances and the future conditions for private investment. This has been reflected in a significant increase in the country risk premium and a deterioration in the rating agencies' outlook, as well as in a recomposition of portfolios that show a lower appetite for Mexican financial assets. All of the above has materialized in a context where the international environment has registered an additional deterioration and with a view to further tightening of global financial conditions. On the other hand, the current and prospective indicators in Mexico indicate the need to adjust monetary policy, so that inflation converges to the target in the foreseen horizon. Under the new conditions described above, this Central Institute must send an unequivocal, timely and strong signal to fully comply with its constitutional mandate to preserve the purchasing power of the national currency. Failure to act with enough forcefulness, and if a deterioration of the macroeconomic framework occurs, the effectiveness of the monetary policy could be diminished and further adjustments would be required, to prevent an unanchoring of inflation expectations.

#### **Opinion.** Manuel Ramos Francia

Monetary policy decisions must include more elements than possible modifications to the reference rate. One of such elements is usually monetary policy forward guidance.

As I have stated before, in my opinion, the inflationary process shows diverse features that make convergence of inflation to its target difficult.

The significant increase in uncertainty that is associated to the general management of economic policy during the next years further worsens this situation, possibly even putting at risk the healthy functioning of the nominal system of the economy (Prices, wages, exchange rate and monetary aggregates). This could result in an unanchoring of inflation expectations as well as in a lower potential growth rate.

Under these conditions, the decision must include a firm message, clear and forceful about the conduction of monetary policy in a timeframe longer than that of a business cycle. Thus, given the possible persistence of adverse shocks to the exchange rate and to long term interest rates, it might be necessary to maintain, for a prolonged period of time, the objective for the reference rate at levels higher than those foreseen recently.

#### ANNEX

The information in this section 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

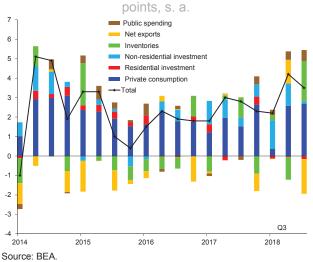
#### A.1.1. World economic activity

During the third quarter of 2018, the world economy continued to grow, albeit at a more moderate pace, with an increased divergence among different regions and countries. Particularly, available data for the third guarter reflects the continuous high growth of U.S. economic activity, although below previous quarter figures. In contrast, other advanced economies grew at lower-than-expected levels, while the growth rate of the main emerging economies weakened in general terms. Additionally, risks for the global economy in the short- and medium- terms have increased due to the intensification of international trade disputes and to the tightening of financial conditions, which may increase in the event of inflationary surprises. There are also risks of vulnerability of some emerging economies, volatility of oil prices, as well as political and geopolitical factors. In this context, for 2018 and 2019, the global economy is still expected to grow at a moderate rate, although such forecasts have been revised slightly downwards.

In the U.S., economic activity grew at a relatively high rate of 3.5% (annualized quarterly and seasonally adjusted rate) during the third guarter, although below the rate registered during the second quarter (Chart 1). Particularly, private consumption continued to expand significantly, driven by the high levels of consumer confidence, wage growth, and the fiscal stimulus, while the expansion of public spending continued. Similarly, business inventories contributed significantly to growth, after the marked inventory rundown exhibited during the second quarter. In contrast, gross fixed investment weakened due to the lower dynamism of nonresidential investment and the contraction of the residential investment component. Finally, net exports affected negatively the rate of GDP growth, partly reflecting both the fading positive impact of agricultural exports observed during the previous quarter and the appreciation of the US dollar.

### Chart 1 USA: Real GDP and Components

Annualized and seasonally adjusted quarterly percentage change and contribution in percentage

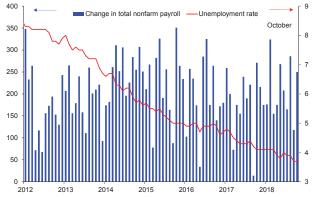


In October, U.S. industrial production grew at a more moderate rate as a result of the continuous fall in the mining sector -associated with lower activity in oil drilling and extraction due to the fall in crude oil prices- and the contraction in the demand for electricity and gas due to the changing weather conditions in several regions of the country. In contrast, manufacturing activity has continued to grow at a relatively high rate, with monthly average increases of 0.3% between June and October of this year, despite the hurricanes that hit that country in September and October (the Federal Reserve estimated that, in those months, such natural phenomena might have affected negatively industrial production by up to 0.1%). Forward-looking indicators, such as the Purchasing Manager's Index (PMI), suggest that manufacturing activity will maintain its dynamism in the coming months.

The U.S. labor market continued to strengthen. The non-farm payroll increased by 250,000 jobs in October, after having grown only by 118,000 jobs in September due to the impact of Hurricane Florence, which took place in that month (Chart 2). The unemployment rate also reached 3.7% in October, its lowest figure in almost five decades, and below the natural unemployment rate estimated by the U.S. Congressional Budget Office (CBO). Other indicators also suggest a further tightening of the labor market. Particularly, vacancy and quit rates are above precrisis levels. In this context, wage growth picked up and the surveys on compensation plans suggest these will continue growing.

## Chart 2 USA: Non-farm Payroll

Monthly change and 3-month moving average of the monthly change in thousand jobs, s. a.



s. a. / Seasonally-adjusted figures.

Source: BLS.

In the Eurozone, economic activity decelerated significantly during the third guarter of the year, mainly due to weak external demand, higher political uncertainty, escalating financial turmoil in Italy, and transitory factors in Germany, such as the impact of the significant delays in the certification processes of the new regulations on emission control on the automotive sector. GDP grew 0.7% (annualized quarterly and seasonally adjusted rate), below expectations of the consensus of forecasters, after having expanded 1.8% during the second guarter. Although available data on private consumption and investment suggests that both components will continue growing, net exports slowed down the region's economic activity due to both the lower external demand and the aforementioned impact on the automotive sector. In this environment, the unemployment rate remained at 8.1% in September, below the long-term level, while wages continued to grow at a gradually faster rate.

In Japan, economic activity contracted 1.2% (annualized quarterly and seasonally adjusted rate) during the third quarter, after having grown 3.0% during the second quarter. This reflects the weakening of net exports given the lower external demand, while domestic demand was significantly affected by various natural phenomena. Nevertheless, the unemployment rate registered 2.3% in September, near its lowest level of the last two decades. In this environment, wages rebounded, reflecting the further tightening of the labor market.

In most emerging economies, economic activity weakened due to the intensification of trade disputes, the tightening of financial conditions, and various

idiosyncratic factors. Particularly, the Chinese economy continued to decelerate, from an annual rate of 6.7% during the second quarter to one of 6.5% during the third quarter. This was associated with the Chinese government's policies to reduce the expansion of credit and foster a sustained growth. Nevertheless, to diminish the risk of a greater-than-expected deceleration and offset the possible effects of the U.S. protectionist trade policies, the government of this country announced recently a fiscal and monetary stimulus, although uncertainty persists as to the effectiveness of these measures and their possible effects on China's financial stability.

International commodity prices decreased in general terms in the last weeks. Particularly, after the increase observed since mid-August, crude oil prices began to fall at the beginning of October due to higher production in Saudi Arabia, the U.S. announcement of a temporary exemption of trade sanctions to Iranian crude oil buyers for eight countries, and a reduction in global demand forecasts for 2019 by the Organization of Petroleum Exporting Countries (OPEC). Additionally, the escalating trade tensions between the U.S. and China, together with the forecasts of a lower global manufacturing expansion, continued to push downwards the prices of industrial metals. Finally, grain prices underwent episodes of high volatility, due mainly to the disputes between the U.S. and China, uncertainty regarding the condition of winter crops in the U.S., and the downward revision in the forecast for Russian grain exports.

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

In a context of tight labor markets, both wages and inflation continued following an upward trend in the economies. major advanced Nevertheless. divergence among countries persists and, in some of them, inflation moderated at the margin (Chart 3). Particularly, in the U.S., inflation has fluctuated around its target. However, it recently exhibited some deceleration, reflecting the appreciation of the U.S. dollar and the lower increases in vehicle prices. In the Eurozone and Japan both core inflation and its expectations remained at low levels, despite the lower slack in their labor markets. In emerging economies, although headline inflation remained below their central banks' targets, it continued to increase due to idiosyncratic factors, the depreciation of their currencies, and the lower slack in their economies.

Chart 3
Selected Advanced Economies: Core Inflation

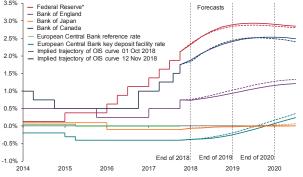
- $1/\mbox{ Excludes}$  fresh foods, energy, and the direct effect of the consumption tax increase.
- $2\prime$  Excludes food, energy, and the effect of adjustments on indirect taxes (CPI-XFET).

Source: Haver Analytics, BEA, Eurostat, and Statistics Bureau.

In this context, the central banks of advanced economies are expected to continue undergoing a gradual process towards adopting a more neutral monetary policy stance, albeit with an expected divergence in terms of the speed at which they could adjust their policies. The Federal Reserve is expected to continue raising its reference rate before the end of 2018. The Bank of England, the Bank of Canada, and the European Central Bank are expected to do the same next year, while the Bank of Japan is expected to adopt a more cautious policy stance with respect to raising its reference rate (Chart 4).

Chart 4
Target Rates and Implied Trajectory of 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.

In November, as expected, the Federal Reserve raised the target range for the federal funds rate to between 2 and 2.25%, and reiterated its forecast of continuing to increase it gradually. In the monetary policy minutes of September, several participants pointed out that monetary policy is anticipated to become slightly restrictive and remain like that for some time, in order to prevent inflation from remaining steadily above the target and to avoid significant financial imbalances. The forecasts of the Federal Reserve board members about the federal funds rate, expectations of forecasters, as well as the probabilities implied in financial markets' variables, suggest an additional 25 basis points increase in December 2018 and of between 50 and 75 additional basis points in 2019.

In its October meeting, the Bank of Canada raised its reference rate by 25 basis points, to 1.75%. This central bank noted that the economy is operating close to potential; that the forecast for exports and business investment improved after the renegotiation of the trade agreement with the U.S. and Mexico; and that inflation is expected to remain near the 2% target until the end of 2020. This central bank also mentioned that, to attain its inflation target, the reference rate should reach the neutral inflation target. As a result, forecasters are expecting at least three additional 25 basis point increases in the reference rate before the end of 2019.

In its October meeting, the European Central Bank (ECB) left its forward guidance and key deposit facility rate unchanged, reiterating that interest rates will remain unchanged at least until the summer of 2019 or until necessary to ensure that inflation converges sustainably to its target. The ECB President expressed his confidence that the region's generalized economic expansion will continue, albeit acknowledging that the region's economy has grown at a weaker rate than previously expected. Additionally, as was programmed, in October, the ECB reduced its monthly purchase of assets from 30,000 million to 15,000 million euros. This central bank stated that, depending on incoming economic figures, it anticipates to conclude this program in December. The ECB revised moderately downwards its growth forecasts for 2018 and 2019 in light of expectations of a lower contribution of foreign trade, while keeping its inflation forecast for the next two years unchanged at 1.7%.

In its November meeting, the Bank of England left its reference rate unchanged at 0.75%. The Monetary Policy Committee pointed out that inflationary pressures may possibly intensify sooner than expected, a fact that could make inflation remain above its 2% target for the next years and then reaching its target until the end 2021 (one year later than the forecast in its August inflation report). Although this central bank emphasized that the process for raising interest rates will be gradual and limited, it anticipated a faster trajectory of rate increases than the published in its previous report. This central bank also reiterated that it will adjust its monetary policy stance in the required direction if, as a result of the Brexit negotiations, there are significant changes in the outlook for growth and inflation.

Finally, in its October meeting, the Bank of Japan left unchanged both its short-term reference rate at -0.1% and its long-term reference rate indexed to its 10-year bond at 0%, reiterating that it will continue with a highly accommodative monetary policy for as long as needed to reach its price stability target. As for its forward guidance, this central bank mentioned its intention of keeping short- and medium-term interest rates at significantly low levels for a long considering the uncertainty development of economic activity and inflation, including the effects of the consumption tax increase. Nevertheless, although in its October meeting it reiterated that downward risks to inflation and to growth have intensified -highlighting that the escalating trade disputes between the U.S. and China may affect the Japanese economy through their impact on global value chains- it expects domestic demand to continue growing.

In most emerging economies, although headline inflation remained below their respective central banks targets, it increased further due to factors such as the recent depreciation of their currencies, the rise in energy prices, and, in some cases, the lower slack in their economies. In an environment of higher inflationary risks, the central banks of some of these economies are expected to continue or begin to raise their interest rates.

International financial markets exhibited greater volatility, while a significant adjustment in investment

portfolios towards lower market risk assets was observed (Chart 5 and Chart 6). This was due to the persistence of several risk factors, which include the possible negative impact of trade disputes on the dynamism of economic activity; an unexpected pick-up in inflation that could lead to a faster process of monetary policy normalization, particularly in the U.S.; the uncertainty regarding both the negotiation of the Italian budget and the Brexit; geopolitical events; and, the instability in some emerging countries, among others.

Some stock market indexes fell by over 10% from their highest level observed at the end of September. In the U.S., the positive impact of the fiscal reform on companies' profits is apparently fading away, while corporate reports of the third quarter of 2018 reflected a less favorable outlook for the following guarters. The main U.S. stock exchanges fell between 5 and 10% since Banco de México's previous monetary policy meeting. Similarly, the prices of high-risk corporate bonds fell significantly. In contrast, there was a higher demand for safehaven assets. Particularly, the US dollar and the yen appreciated against the other world currencies, the price of gold increased moderately, and interest rates on government bonds of the major advanced economies decreased slightly, except for U.S. Treasury bonds, which rose by around 10 basis points. Summing up, the financial conditions of the major advanced economies tightened moderately since Banco de Mexico's last monetary policy meeting. In emerging economies, the prices of financial assets continued to exhibit negative results. Indeed, the currencies of most of these countries depreciated against the US dollar, most of their stock markets fell, and their interest rates increased overall (Chart 7). Nevertheless, in emerging economies that had previously undergone a significant deterioration in their financial conditions, such as Argentina, Brazil and Turkey, a certain recovery in the prices of their assets, as well as an appreciation of their currencies against the US dollar, was observed.

Looking ahead, periods of higher volatility in international financial markets cannot be ruled out, as such markets are very susceptible to the aforementioned series of risk factors that persist globally.

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.

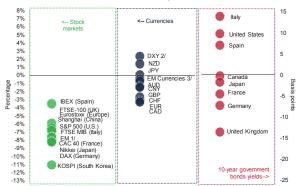
2/V2X: Weighted index of volatility implied in 1-month options for the Euro Stoxx50 published by Deutsche Borse and Goldman Sachs.

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%). Index calculated by Merrill Lynch. The black vertical line indicates Banco de México's last Monetary Policy Committee meeting.

Source: Prepared by Banco de México with Bloomberg data.

# Chart 6 Change in Selected Financial Indicators (October 1 – November 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.

# Chart 7 Performance of Emerging Market Assets since October 1, 2018

Percent, basis points

Region	Country	Currencies	Equity markets	Interest rates 2Y	Interest rates 10Y	CDS
	Mexico	-8.51%	-13.17%	80	84	28
	Brazil	6.51%	9.05%	-96	-144	-65
Latin America	Chile	-4.67%	-2.81%	5	5	6
	Colombia	-6.04%	-1.61%	14	15	9
	Argentina	9.96%	-9.82%	-177	-12	-18
	Russia	-4.33%	-3.17%	7	-4	17
	Poland	-3.38%	-3.45%	5	0	-1
Emerging Europe Cz	Turkey	8.03%	-7.20%	-430	-72	-13
	Czech Republic	-3.64%	-1.50%	22	12	0
	Hungary	-2.67%	3.32%	14	17	0
	South Korea	-2.00%	-11.05%	-14	-13	2
Asia I	Malaysia	-1.21%	-5.37%	0	4	14
	India	0.03%	-4.69%	-6	0	4
	Philippines	1.51%	-4.10%	19	20	14
	Thailand	-2.70%	-6.00%	-1	2	1
	Indonesia	0.60%	-2.82%	-23	22	16
Africa	South Africa	-1.64%	-6.33%	3	6	21

Note: Interest rates correspond to interest rate swaps for 2-year and 10-year maturities. In the case of Indonesia, rates with 1-year and 5-year maturities are used because there are no quotes for 2-year and 10-year maturities. For Argentina, rates in US dollars are used as they are the most liquid ones and those that best reflect the performance of that country's fixed-income market.

Source: Bloomberg.

#### 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, financial assets denominated in pesos exhibited negative results. Particularly, the peso exchange rate depreciated by 8.5% (Chart 8). in an environment of high volatility, a generalized depreciation of emerging economies' exchange rates against the US dollar, and the emergence of various idiosyncratic events. In this regard, the most outstanding factors were the uncertainty in Mexico after the announcement about the intention of cancelling the New Mexico City International Airport (known in Spanish as NAICM), certain legislative initiatives, and the downgrading in the sovereign risk outlook rating for both Mexico and Mexico's national oil company Pemex from stable to negative by some rating agencies.

Chart 8
Mexican Peso and Intraday Fact Depth

20.5

Depth Mexical Principal Princi

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

Foreign-exchange market operation conditions deteriorated slightly (Chart 9), while the conditions implied by foreign exchange options, such as volatility and depreciation bias, increased due to the search for hedging instruments by several market participants (Chart 10 and Chart 11). In this context, foreign exchange rate expectations by forecasters from various financial institutions were revised upwards for the end of 2018 and for the end of 2019.

Chart 9
Mexican Foreign Exchange Market Operating
Conditions and Peso-dollar Exchange Rate

Index (5-day moving average), pesos per US dollar 22.0 21.5 80 21.0 70 20.0 60 50 19.0 40 18.0 30 17.5 17.0 20 J M A O D O D J M A 2017 2018

Note: Index calculated using the mean, volatility, skewness, kurtosis, bidask 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 last monetary policy decision.

Source: Prepared by Banco de México with Reuters data.

Chart 10
Changes during the Period in Volatility Implied in US Dollar Options at Different Tenors

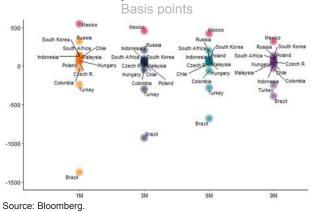
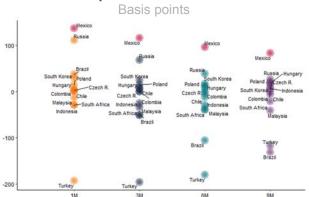


Chart 11
Changes during the Period in Bias Implied in US
Dollar Options at Different Tenors

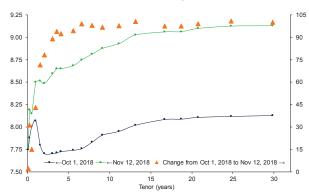


Source: Bloomberg.

Since Banco de México's previous monetary policy statement to date, the yield curve of government securities' interest rates exhibited significant increases by fluctuating between 72 and 101 basis points (bps). Such increases were due mainly to the higher risk premia originated by the cancellation of the NAICM and the aforementioned downgrading in the ratings of both Mexico's sovereign credit outlook and the outlook for Pemex. Yield rates reached their highest level in the last ten years (Chart 12). This took place in a context where operating conditions of this market deteriorated, mainly in terms of volatility and liquidity (Chart 13).

### Chart 12 Government Bond Yield Curve

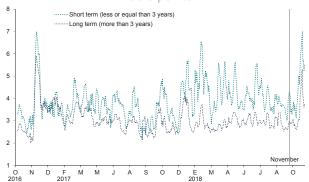
Percent, basis points



Source: PIP.

# Chart 13 Bid-ask Spread of *Bonos* M Yield Curve by Tenor

Basis points



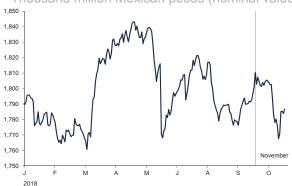
Note: The vertical black line represents Banco de México's last monetary policy decision.

Source: Prepared by Banco de México with data from PIP.

During the last weeks, some capital outflows from fixed-income markets by foreign investors were registered, which reduced investors' exposure mainly in long-term instruments denominated in Mexican pesos (Chart 14).

# Chart 14 Non-resident Investors' Risk Position on Bonos M

Thousand million Mexican pesos (nominal value)



Note: The vertical black line represents Banco de México's last monetary

policy decision.

Source: Banco de México.

It is worth noting that, in line with the previously described events, Credit Default Swaps (CDS) for different terms in Mexico increased (Chart 15), Mexican stock indexes fell (Chart 16), and United Mexican States bonds (UMS), Pemex debt securities, and NAICM bonds, increased.

# Chart 15 Risk Premia on 5-year Credit Default Swap (CDS) and Interest Rate Spreads between Selected Companies and U.S. Government Bonds

Basis points

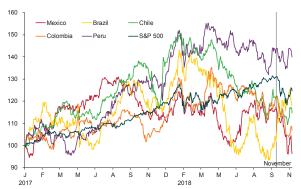


Note: The vertical black line represents Banco de México's last monetary policy decision.

Source: Prepared by Banco de México with Bloomberg data.

# Chart 16 Performance of Stock Market Indexes of Selected Countries in US dollars

Index (31/12/2016=100)



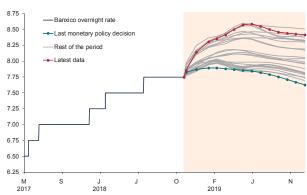
Note: The vertical black line represents Banco de México's last monetary policy decision.

Source: Prepared by Banco de México with Bloomberg data.

Finally, expectations regarding the level of the monetary policy target rate implied by the yield curve structure were revised upward, in contrast with the levels of the previous period. In this regard, with a probability of 42%, a 25 basis point increase in the overnight interbank interest rate (target rate) was included in November's monetary policy decision, in line with the median expectations of the main forecasters. The market is also anticipating that the overnight interbank interest rate will reach 8.14 and 8.41% at the end of 2018 and end of 2019, respectively (Chart 17), while the consensus of forecasters expects the rate to be 8.00% at the end of both years.

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

Percent



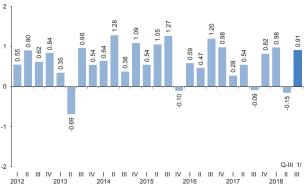
Source: Prepared by Banco de México with PIP data.

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

According to INEGI's flash GDP estimate, during the third quarter of 2018, economic activity rebounded, after having contracted during the previous quarter (Chart 18), despite a persistent weakening in certain components of aggregate demand. Particularly, manufacturing exports grew at a faster rate, in contrast with the weakness observed in the second quarter, and private consumption continued on a positive trajectory. Meanwhile, investment followed a downward trend.

Chart 18
Gross Domestic Product

Quarterly percentage change, s. a.



s. a. / Seasonally adjusted figures.

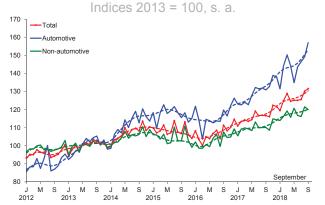
1/ The figure corresponding to the third quarter of 2018 refers to INEGI's flash estimate of quarterly GDP.

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

As for external demand, the rebound in manufacturing exports during the third guarter of 2018 was mostly associated with the recovery of automotive exports, while non-automotive exports continued to exhibit a positive trend (Chart 19). By destination, exports to the U.S. continued to grow, while those to the rest of the world decreased in general terms during the guarter, despite the recovery exhibited in September. As for domestic demand, according to its monthly indicator, private consumption continued on a positive trend. More timely indicators of consumption, although of less coverage, such as revenues of retail stores, remained on an upward trend, while those of sales of light vehicles remained at levels similar to those observed during the first half year, in contrast with their sharp downward trend followed throughout 2017. In contrast, during July and August of 2018, both spending in machinery and equipment and

investment in construction exhibited a weaker performance, as compared to the previous quarter, which further deteriorated the negative trend that investment has exhibited since the beginning of the second quarter of 2018.

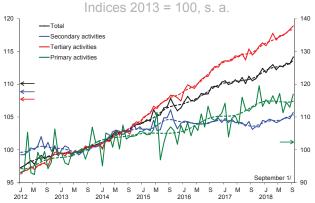
# Chart 19 Total Manufacturing Exports



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, according to INEGI's flash GDP estimate, tertiary activities remained on an upward trend during the third quarter of 2018, while secondary activities recovered, in contrast with the weakness exhibited during the previous quarter. Primary activities expanded, after having fallen significantly during the second guarter of 2018 (Chart 20). Within industrial activity, the greater dynamism that manufacturing has exhibited stands out, in contrast with the weak results registered in most of 2017. The negative trend that construction has shown since the end of the first quarter of 2018 persisted, while mining, quarrying and oil and gas extraction continued following a downward trend (Chart 21). As for the services sector, its dynamism during July and August 2018 was mainly the reflection of the contribution of its components of commerce; finance and insurance; real estate and rental and leasing; transportation and warehousing; information and cultural services; professional, scientific and technical services; management of companies and enterprises; educational services; and, health care and social assistance.

# Chart 20 Global Index of Economic Activity



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 from IGAE correspond to the implied estimate consistent with the flash GDP figure released by INEGI. Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

#### Chart 21 Industrial Activity

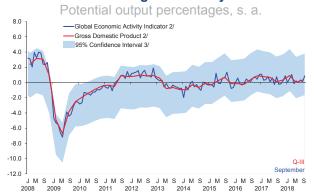


s. a. / Seasonally adjusted series and trend series. The former is represented by a solid line and the latter by a dotted line. Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

As for the economy's cyclical position, during the third quarter of 2018, slack conditions, as measured by total output gap estimates and those that exclude the oil sector tightened relative to those of the previous quarter, although they remain less tight than those observed at the beginning of the year (Chart 22). In regards to the labor market, both the urban and national unemployment rates remained at low levels (Chart 23), while the number of IMSS-insured jobs continued following an upward trend, despite exhibiting some deceleration. As a result of the contraction of real average earnings during the third quarter, together with the behavior of productivity, unit labor costs for the overall economy decreased in real terms, after the rebound exhibited during of the previous quarter (Chart 24).

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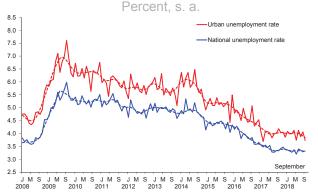
# Chart 22 Output Gap Estimates <sup>1/</sup> Excluding Oil Industry <sup>4/</sup>



- 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/ INEGI flash GDP figures up to the third quarter of 2018; IGAE figures implied up to September 2018 consistent with flash GDP figures.
- 3/ Output gap confidence interval calculated with a method of unobserved components.
- $4/\ \mbox{Excludes}$  both oil and gas extraction, support activities for mining, and petroleum and coal products' manufacturing.

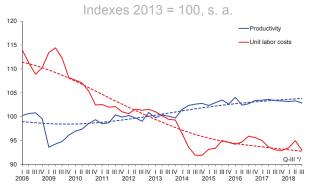
Source: Prepared by Banco de México with INEGI data.

# Chart 23 National Unemployment Rate and Urban Unemployment Rate



- 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
Global Index of Mexican Labor Productivity
(IGPLE, for its acronym in Spanish) and of Unit
Labor Costs<sup>1/</sup>



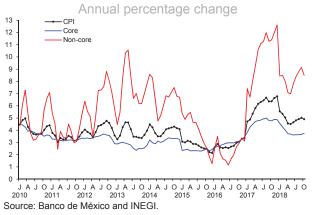
- s. e. / Seasonally-adjusted and trend series. The former is represented by a solid line and the latter by a dotted line. Trend series estimated by Banco de México.
- 1/ Productivity based on hours worked.
- e/ Figures of third quarter 2018 correspond to estimates of Banco de México constructed with the latest GDP of INEGI's SACM.
- Source: IGPLE published by INEGI. Unit labor costs prepared by Banco de México with INEGI data.

During the third quarter of 2018, total financing to the non-financial private sector grew at a moderate rate, as compared to the first quarter of the year. This reflected, on the one hand, a decline in the rate of growth of total financing to non-financial private companies, which was due to the contraction in external financing and to the deceleration of domestic financing to this sector. On the other hand, lending to households grew at a lower rate, due to the deceleration of consumer credit, given that mortgage loans grew at a rate similar to those observed during the first half of 2018. Business and housing delinquency rates have remained stable and at low levels, while those related to consumer lending continued to improve at the margin, although they remain at relatively high levels. This suggests the absence of demand pressures on the loanable funds market.

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

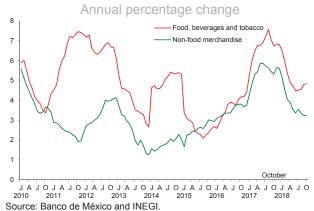
Annual headline inflation decreased from 5.02% in September to 4.90% in October. This decline is explained by the reduction that non-core inflation has begun to exhibit, although it still remains at high levels. In contrast, core inflation rose during the same period (Chart 25 and Table 1).

Chart 25
Consumer Price Index

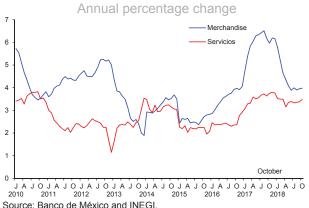


Between September and October of 2018, annual core inflation increased from 3.67 to 3.73%. This is attributed partly to the indirect effects of the hikes in energy prices on the production costs of some of its components. Similarly, some components of the core index, such as the prices of services other than education and housing, followed an upward trend in their annual rate of change. In addition to the above mentioned indirect effects, several factors have also contributed to the persistence exhibited by core inflation. As for the merchandise subindex, its annual rate of change has remained relatively stable in the last months (Chart 27), although its items have shown a different behavior. In this regard, the annual rate of change of food prices has increased moderately in recent months, while that of non-food commodity prices has been decreasing (Chart 26). In contrast, the annual rate of change of the subindex of services prices grew between September and October 2018 (Chart 27). Particularly, the annual rate of change of services prices, other than education and housing, has remained above 3% and has followed an upward trend.

Chart 26
Merchandise Core Price Subindex

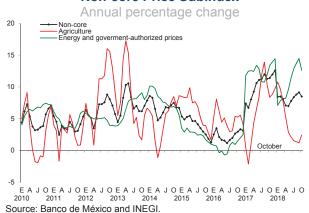


### Chart 27 Merchandise and Services Core Price Subindex



Annual non-core inflation decreased from 9.15 to 8.50% between September and October 2018, due to the lower increases in energy prices and the effect of a high base of comparison in the prices of these commodities. This was partly offset by the higher increases in the prices of agricultural products (Chart 28 and Table 1).

Chart 28
Non-core Price Subindex



The medians for short-term inflation expectations drawn from surveys recently exhibited an overall increase. Particularly, the median for headline inflation expectations for the end of 2018 drawn from Banco de México's Survey of Private Sector Forecasters, was adjusted upwards from 4.50 to 4.61% between September and October, while those for core inflation expectations and non-core implied inflation expectations, from 3.53 to 3.59% and from 7.50 to 7.76%, respectively. Similarly, the medians for expectations for the following 12 months, both relative to the month in which data is collected and to the subsequent month, were adjusted upwards from 3.76 to 3.83% and from 3.70 to 3.80%, respectively. The median for headline inflation expectations for the end of 2019 remained at 3.70%, with no significant changes in its components. Nevertheless, worth noting is that, according to preliminary figures from Survey of Economic Expectations Citibanamex, the median of inflation expectations for the end of 2019 was adjusted upwards from 3.70 to 3.80% between the second half of October and the first half of November 2018. This result reflects the upward adjustment of 4.32 to 4.73% in non-core inflation implied expectations, given that the median for core inflation was left unchanged at 3.50%. Finally, the medians for medium- and long-term inflation expectations remained stable at around 3.50%, although above the 3% inflation target. During the referred period, inflation expectations implied in quoted market prices of long-term money market instruments (drawn from 10-year government bonds), remained near 3.5% during the same period. while inflation risk premia increased.

Considering that energy prices have exhibited greater-than-expected increases, mainly in gasoline and LP gas prices, that they have had indirect effects on core inflation, and that services prices have registered greater-than-expected variation rates, the foreseen trajectory for both headline and core inflation is expected to be affected in the coming months. Such effects, nevertheless, are expected to be transitory and therefore both indicators are anticipated to resume their downward trajectory towards the inflation target. Inflation, however, faces significant risks associated with the possible adoption of policies that may affect the structure of the economy's price formation process. Among such risks are: a) that the peso exchange rate continues to be subject to pressures stemming from higher external interest rates and other external and domestic factors; b) that inflation is affected if pressures on energy prices persist or if there are increases in agricultural product prices; c) that a further escalation of protectionist and compensatory measures worldwide takes place; d) that public finances deteriorate; e) that, as a result of the shocks observed and the levels reached by inflation, secondround effects arise, thus affecting the economy's price formation process; and, f) that pressures on the economy arise insofar as wage negotiations are not consistent with productivity gains. Considering all of the above, the balance of risks to the forecasted trajectory of inflation has deteriorated and is biased significantly to the upside, in an environment of high uncertainty.

Table 1
Consumer Price Index and Components
Annual percentage change

	December 2017	September 2018	October 2018
I	6.77	5.02	4.90
Core	4.87	3.67	3.73
Merchandise	6.17	3.95	3.98
Food, beverages and tobacco	6.82	4.80	4.84
Non-food merchandise	5.62	3.24	3.24
Services	3.76	3.38	3.48
Housing	2.65	2.62	2.59
Education (tuitions)	4.74	4.69	4.69
Other services	4.63	4.09	4.30
Non-core	12.62	9.15	8.50
Agriculture	9.75	1.22	2.43
Fruits and vegetables	18.60	-0.87	2.06
Meats, poultry, fish and eggs	4.50	2.35	2.52
Energy and government-authorized prices	14.44	14.47	12.62
Energyproducts	17.69	19.20	17.10
Government-authorized prices	8.36	5.42	3.45

Source: INEGI.





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