Monetary Policy Outlook in a Negative Rates Environment
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J.P. Morgan Investor Seminar
Washington, DC, 15 April 2016
Outline

1. External Conditions
   2. Macroeconomic Policy in Mexico
   3. Evolution and Outlook for the Mexican Economy
   4. Final Remarks
The global economic situation has remained difficult through 2016.

- It deteriorated significantly during the first weeks of the year as a result of a combination of factors:
  - A slow pace of expansion in the AEs and a continued weakening of growth in EMEs.
  - Persistent doubts about China’s economic outlook and policy management.
  - Further downward pressures on commodities prices.
  - Renewed concerns about the divergence of monetary policy in the main AEs.
  - Severe difficulties in some of the main global commercial banks.
  - Apprehension about the strength of economic fundamentals in a number of EMEs.

- Subsequently, there has been some improvement in sentiment as a result of a moderate recovery in oil prices, and signals that monetary policy in some of the main AEs would adhere to a cautious approach.

- Nonetheless, the outlook remains complicated and subject to a high degree of uncertainty.
The policy response in some AEs to weak economic activity and very low inflation has included negative interest rates.

- The evidence suggests that these actions have contributed to ease monetary and financial conditions through several transmission channels.

- However, the experience with negative policy rates is modest and there appear to be limits to the extent to which rates can go negative and to the period during which they can remain in place, mainly due to their potential unintended consequences:
  - A sharp increase in the use of cash in the economy.
  - An adverse impact on the profitability of commercial banks.
  - Financial stability risks.
  - A weakening of institutions with long duration liabilities.
  - Negative implications for savers.

- Therefore, the ultimate outcome of setting reference rates below the zero lower bound is surrounded by uncertainty.
Outline

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2. Macroeconomic Policy in Mexico
3. Evolution and Outlook for the Mexican Economy
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There have been two broad stages of monetary policy in Mexico since 2013. The first one, through mid-2014, is characterized by a downward path of the reference rate to a historically low level at 3.0 percent, with the second showing high volatility in international financial markets and pressures on the exchange rate, ultimately leading to increases in the reference rate.

**Mexico: Target for the Overnight Interbank Interest Rate**

**Annual %**

- **March 2013**: 50 bps cut in response to structural changes in the process of price determination of the economy.
- **September 2013 through June 2014**: 100 bps decline as part of an effort to stimulate the economy.
- **September 2014 through December 2015**: Stable at historical lows, as both a negative output gap and progress on the inflation front persisted, in the context of mounting pressures on the MXN.
- **December 2015**: 25 bps hike following lift-off from the Federal Reserve.
- **February 2016**: 50 bps increase as part of a coordinated policy response to deteriorating conditions.

1/ Data through 14 April 2016. Source: Banco de México.
In December 2015, the target for the overnight interbank interest rate in Mexico was increased by 25 basis points.

Notwithstanding the presence of a low inflation rate, a negative output gap, and stable long-term inflation expectations, the monetary policy stance was modified in light of:

- The hike in US interest rates.
- The consequent risks for the exchange rate and inflation from potential disorderly adjustments of capital flows, in an environment of nervousness in international financial markets, the high integration of the Mexican economy with that of the US, and a very open capital account.
In early 2016, conditions deteriorated further. In particular, volatility in the international financial markets increased and further drops in oil prices affected the economy through several channels:

a. The terms of trade and the trade balance.

Mexico: Oil Terms of Trade
Index Feb-2014 = 100, 3-month moving average

Source: Banco de México with data from SAT, Secretaría de Economía, Banco de México and INEGI.

Mexico: Trade Balance
% of GDP

Source: SAT, Secretaría de Economía, Banco de México and INEGI.
b. Public finances.

Mexico: Oil Revenues of the Public Sector
% of GDP and US dollars per barrel

Source: SHCP and Pemex.
c. Pemex revenues.

Pemex: Financial Results
% of GDP

Own Revenues

Budgetary Expenditures

Financial and Primary Balances

Source: SHCP and INEGI.
The real exchange rate depreciated significantly as a result of these shocks.

Mexico: Real Exchange Rate
Index, 1990 = 100

Bilateral (US)  Multilateral (49 countries, trade-weighted)

Source: Banco de México.
However, the large depreciation of the MXN went beyond the adjustment required as external conditions deteriorated.

This is explained by the use of the peso as a hedging instrument against risks in other emerging market currencies, and of automated mechanisms for high-frequency trading purposes in order to generate, and take advantage of, volatility in the MXN market.

- In this context:
  - The peso-USD rate reached a historical high.
  - The effectiveness of the market intervention mechanisms in place since late 2014 was impaired.
  - Exchange rate expectations deteriorated.
The coordinated macroeconomic policy response has been based on three complementary strategies:

1. An adjustment to the fiscal stance of the public sector in various fronts, including:
   - A preventive cut in programmable expenditures of the federal government and PEMEX during 2016, with the required additional adjustment already programmed for 2017.
   - In the case of Pemex, further to the expenditure cuts, the government has announced the implementation of a number of measures aimed at strengthening the company’s financial position, including: (i) a capital injection (26.5 billion pesos), (ii) liquidity provision through the exchange of tradable government securities for most of a 2015 government promissory note for the payment of pensions (47 billion pesos); and (iii) a lower tax burden on oil exploration and extraction in 2016 (savings of 50 billion pesos).
   - Taking into account the combined effect of these measures, as well as Banco de México’s operational surplus in 2015, the PSBR and the public debt are expected to show during 2016 figures below those originally programmed (3.5 and 48.6 percent of GDP, respectively).
2. A 50 basis points increase in the target for the overnight interbank interest rate to 3.75 percent, given the increased risk of a surge of inflation expectations beyond levels consistent with the consolidation of the 3 percent target.

- Although this does not represent the beginning of a cycle of interest rate increases, the central bank will remain vigilant of the evolution of inflation and inflationary expectations and adjust the monetary policy stance if needed.

3. Termination of the daily US dollar auction mechanisms in the foreign exchange market.

- Discretionary interventions in the MXN market are not ruled out, should extraordinary conditions arise.
Some results are readily visible. The peso has appreciated with respect to the dollar and the currencies of other emerging market economies...

Nominal Exchange Rates of the MXN
Index 16-Feb-2016 = 100

Source: Banco de México and J.P. Morgan, with data through 14 April 2016.
...the yield curve has flattened...
...and foreign investment in MXN-denominated government securities remains at high levels.

Holdings of Government Securities by Non-Residents 1/

Billion pesos

1/ Total includes CETES, Bonos, Udibonos, Bondes and Bondes D.
2/ Data through 5 April 2016.
Source: Banco de México.
Outline

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The Mexican economy continues to show a moderate rate of growth.

**Mexico: Total Output**
Annual % change, s.a.

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**Mexico: Total Output**
Annual % change, s.a.

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s.a. / Seasonally adjusted.
*/ Monthly GDP proxy.
Source: INEGI.
Manufacturing exports remain weak, but the share of Mexican exports in the US market has increased.

Manufacturing Exports
Index 2008=100, s. a.

Mexico’s Share in US Non-Oil Imports
% , s.a.

s. a. / Seasonally adjusted.
Source: Banco de México with data from SAT, SE, Banco de México and INEGI.

s.a. / Seasonally adjusted.
Source: Banco de México with data from the US Department of Commerce.
Economic activity continues to be supported by private consumption, in turn stimulated by the evolution of the wage mass, remittances and bank credit. The recovery of investment has lagged, but an increase in domestic financing to the private sector is underway.

Private Consumption Determinants
Index 2013-I = 100, s.a.

- Formal employment 1/
- Real wage mass 2/
- Remittances 3/ →

Domestic Financing to the Private Non-Financial Sector
Annual % change of nominal balances

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s.a. / Seasonally adjusted.
1/ Total employees registered at IMSS.
2/ Quarterly data.
3/ Denominated in MXN, at constant prices.
Source: Banco de México with data from Banco de México, IMSS and INEGI.

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Source: Banco de México.
Economic growth is expected to continue recovering, although downside risks persist and the output gap is projected to remain negative throughout 2016-2017.

Output Gap Estimates and Projections
% of potential, s.a.

<table>
<thead>
<tr>
<th>Real GDP Growth Projections</th>
<th>Annual %</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Banco de México(^1)</td>
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<td>2.0 – 3.0</td>
<td>2.5 – 3.5</td>
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<td>Banamex Survey(^2)</td>
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<td>2.30</td>
<td>2.75</td>
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<tr>
<td>Banco de México Survey(^3)</td>
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<td>2.40</td>
<td>2.96</td>
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s.a. / Seasonally adjusted.
2/ Median projection of the 6 April 2016 release.
3/ Median projection of the March 2016 survey, released 1 April 2016.
Source: Banco de México, Banamex and INEGI
Despite the significant depreciation of the MXN, inflation has remained below the target...

**Consumer Price Index and USD/MXN Exchange Rate**

Annual % change

Source: Banco de México and INEGI
... without signs of contamination to non-tradable goods.

Core Price Index: Durable Merchandise and Other
Annual % change

Source: Banco de México and INEGI.
In addition, inflation expectations for both 2016 and 2017 remain low, albeit slightly above the target. Importantly, medium- and long-term inflation expectations have recently shown further convergence to levels more consistent with the permanent target, but upside risks have not disappeared.

**Inflation Expectations**

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<th>Annual %</th>
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<tbody>
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<td>2016</td>
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<td>2017</td>
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</table>

2/ Median expectation of the 6 April 2016 release.
3/ Median expectation of the March 2016 survey, released 1 April 2016.

Source: Banco de México and Banamex.
Mexico’s economy has maintained a steady, although moderate, pace of growth during 2012-15, even with a considerable weakening of activity abroad.

Selected Economies: Real GDP Growth

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<td>Mexico</td>
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<td>United States</td>
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<tr>
<td>LAC exc. Mexico</td>
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</table>

LAC: Latin America and the Caribbean.
Source: IMF (World Economic Outlook, April 2016).
Mexico is one of the few EMEs which over the period 2013-2015 recorded higher economic growth and a decline in inflation. Recent structural reform efforts should contribute to a better performance in the future.

Emerging Market Economies: Change in Real GDP Growth and CPI Inflation, 2013-2015

% points

Source: IMF and national statistics agencies and central banks.
Notwithstanding the difficult external conditions, the Mexican economy continues to show moderate rates of growth and low inflation.

The policy efforts underway, coupled with the expected upturn in industrial output in the US and the ongoing impact of the efforts of structural reform, should allow a gradual strengthening of economic activity.

With a negative output gap expected to persist, the main challenge for monetary policy will likely be to contain potential inflationary pressures deriving from the effect of external events on the exchange rate.

Naturally, in an environment of apprehension in international financial markets, monetary policy will probably have little room for maneuver in the face of higher interest rates in the United States.

Furthermore, with uncertain world economic conditions likely to continue, the monetary policy stance may need to be adjusted, should risks to inflation arise, irrespective of the timing of normalization of monetary policy in the United States.

In any event, the Banco de México will continue to monitor closely all determinants of inflation to ensure its convergence to the 3 percent target.