



# Inflation Report

October–December 2012

February 13, 2013



BANCO DE MÉXICO

# Outline

## **1** External Conditions

## **2** Economic Activity in Mexico

## **3** Monetary Policy and Inflation Determinants

## **4** Forecasts and Balance of Risks

# External Conditions

## Global Environment in Q4 2012

### Growth

- ✓ *U.S.: slight contraction.*
- ✓ *Euro Zone: contraction.*
- ✓ *Emerging economies: weak growth.*

### Inflation

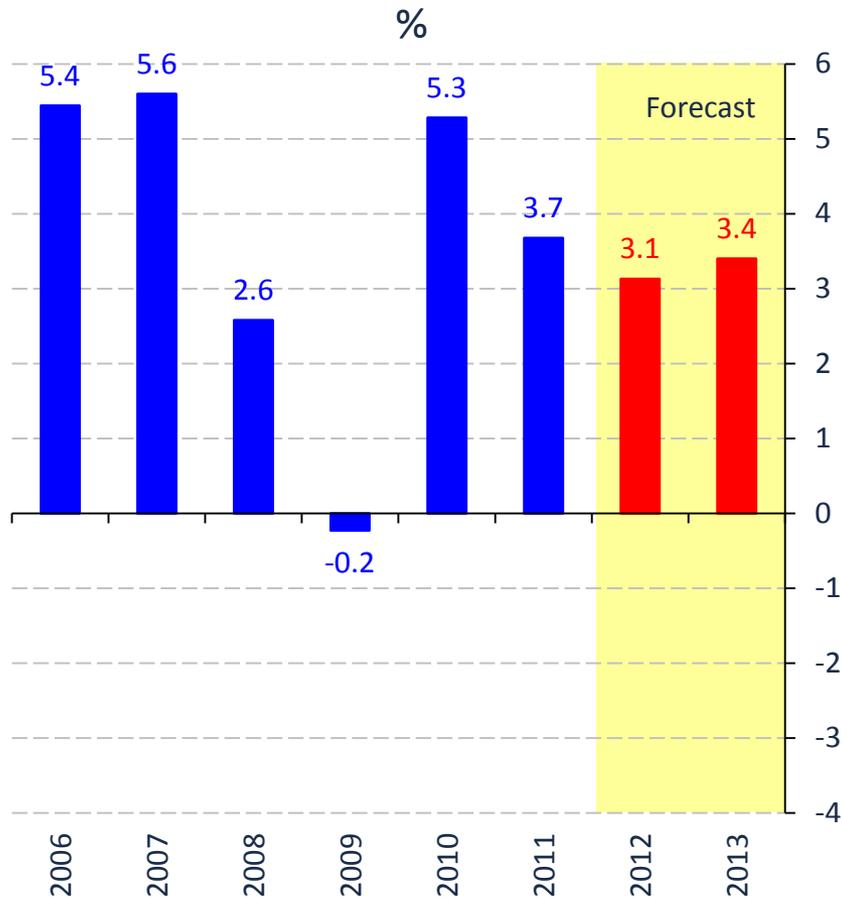
- ✓ *Advanced: decrease.*
- ✓ *Emerging: stabilized after the increase in Q3 2012.*

## Global Monetary Policy

- ✓ *Mostly continued accommodative.*
- ✓ *In some cases presented additional easing.*

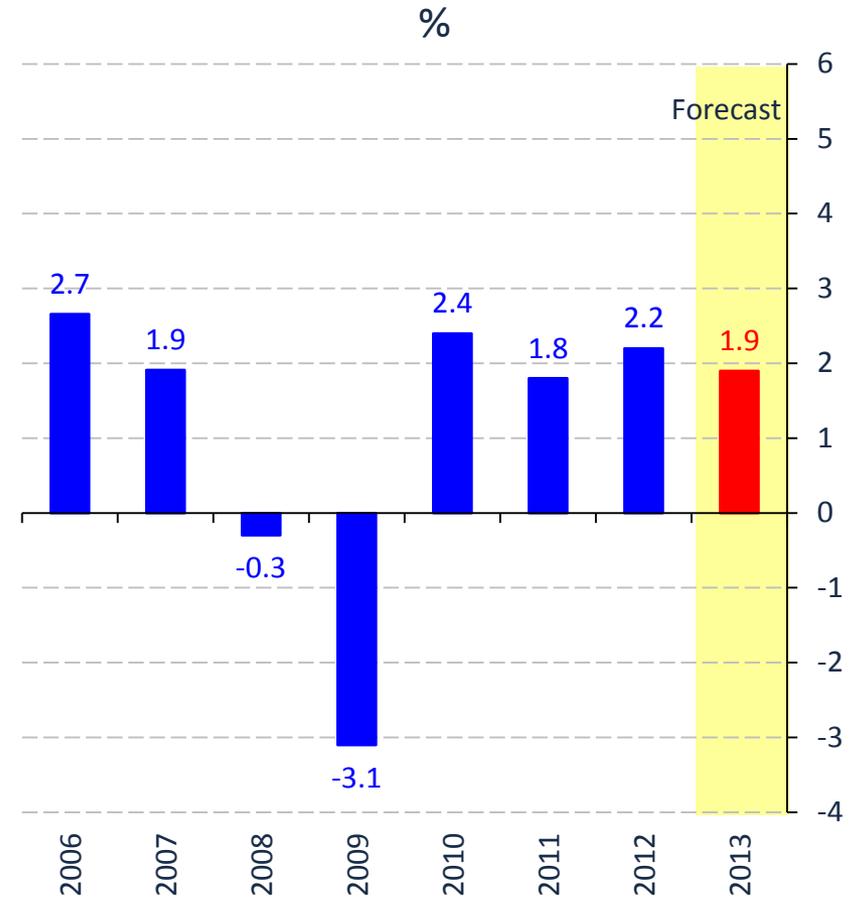
# In 2013 a lower rate of the U.S. economic growth is expected as compared to last year.

## World Economy: GDP Growth and GDP Growth Forecasts for 2012 and 2013



Source: Estimated by Banco de México with data from International Monetary Fund and Consensus Forecasts.

## U.S.: GDP Growth and GDP Growth Forecast for 2013<sup>1/</sup>



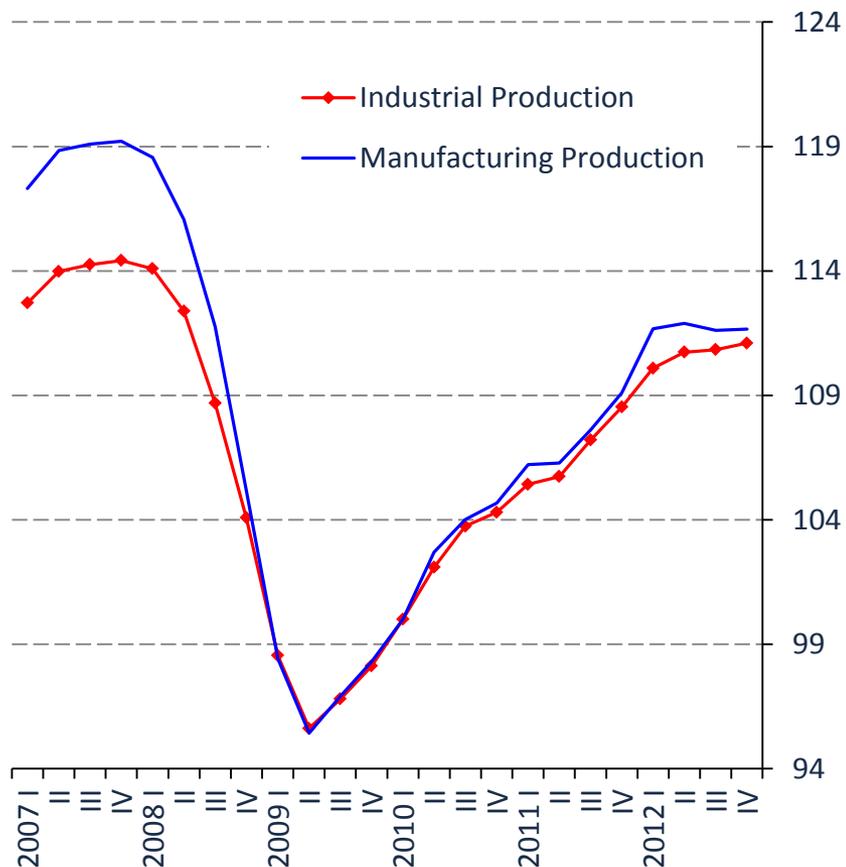
1/ Preliminary figure for 2012.

Source: U.S. Bureau of Economic Analysis and Blue Chip.

# In the U.S., industrial production expanded moderately and employment recovery has not consolidated yet.

## Industrial and Manufacturing Production

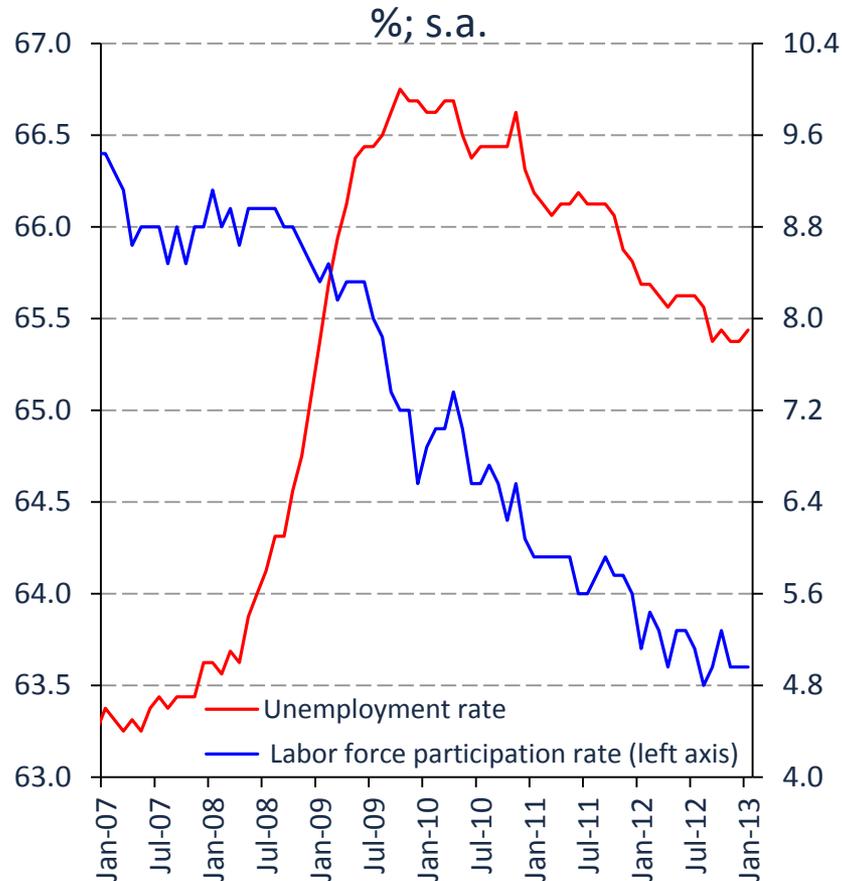
Index 1Q 2010=100; s.a.



s.a./ Seasonally adjusted.  
Source: U.S. Federal Reserve.

## Unemployment and Labor Force Participation Rates

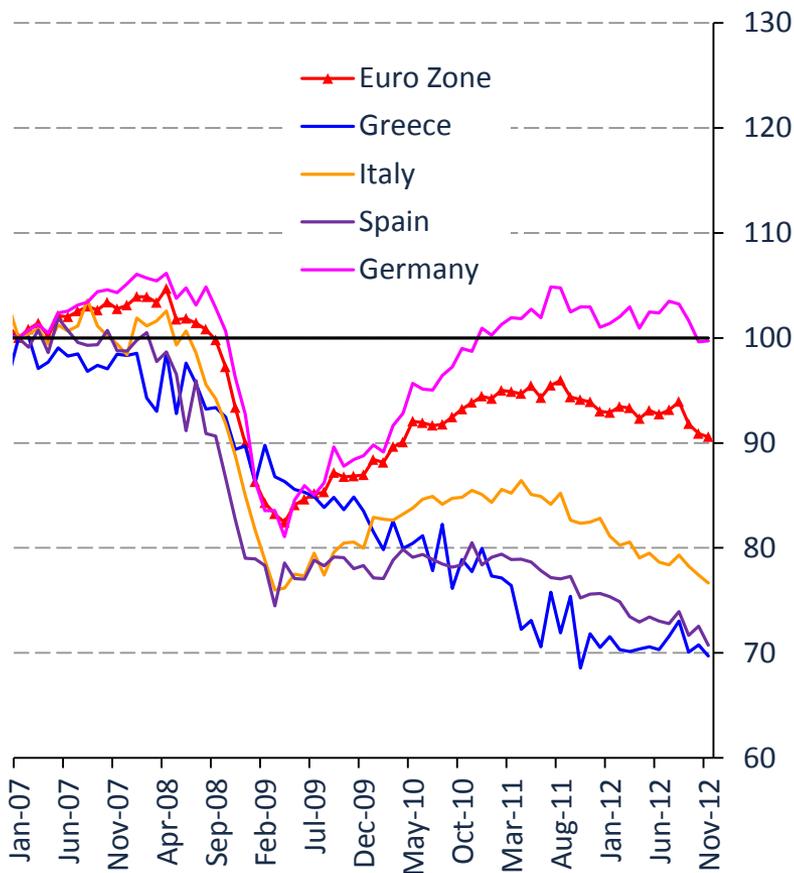
%; s.a.



s.a./ Seasonally adjusted.  
Source: Bureau of Labor Statistics (BLS).

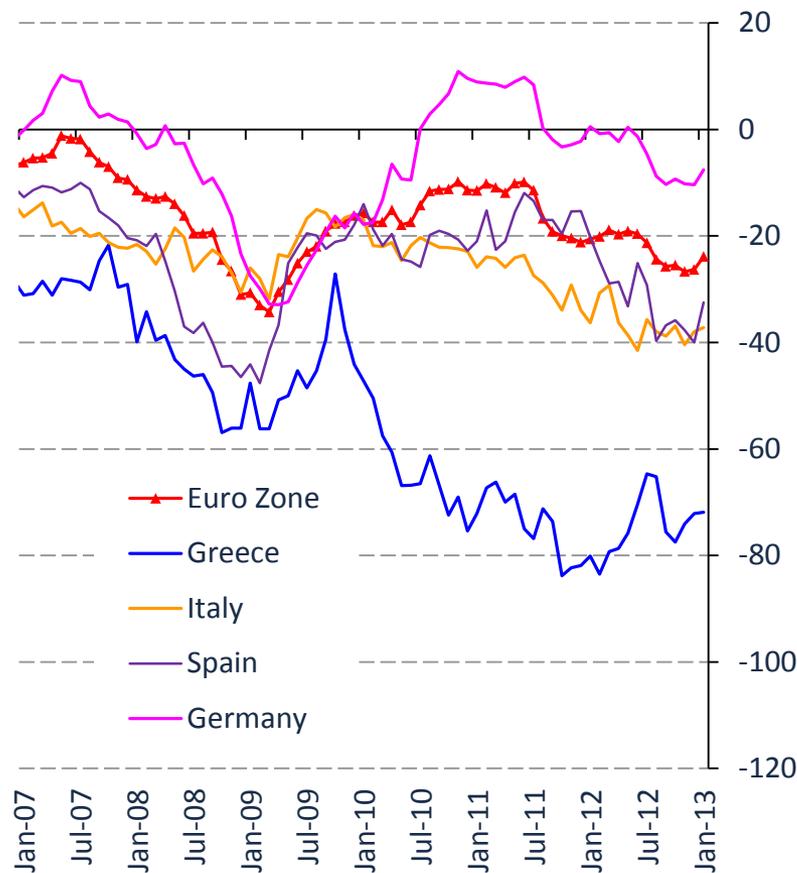
# In the Euro zone, economic weakness persists, given the necessity to continue with the fiscal adjustment, as a result of imbalances in various countries of the region.

**Industrial Production**  
Index Jan-2007=100; s.a.



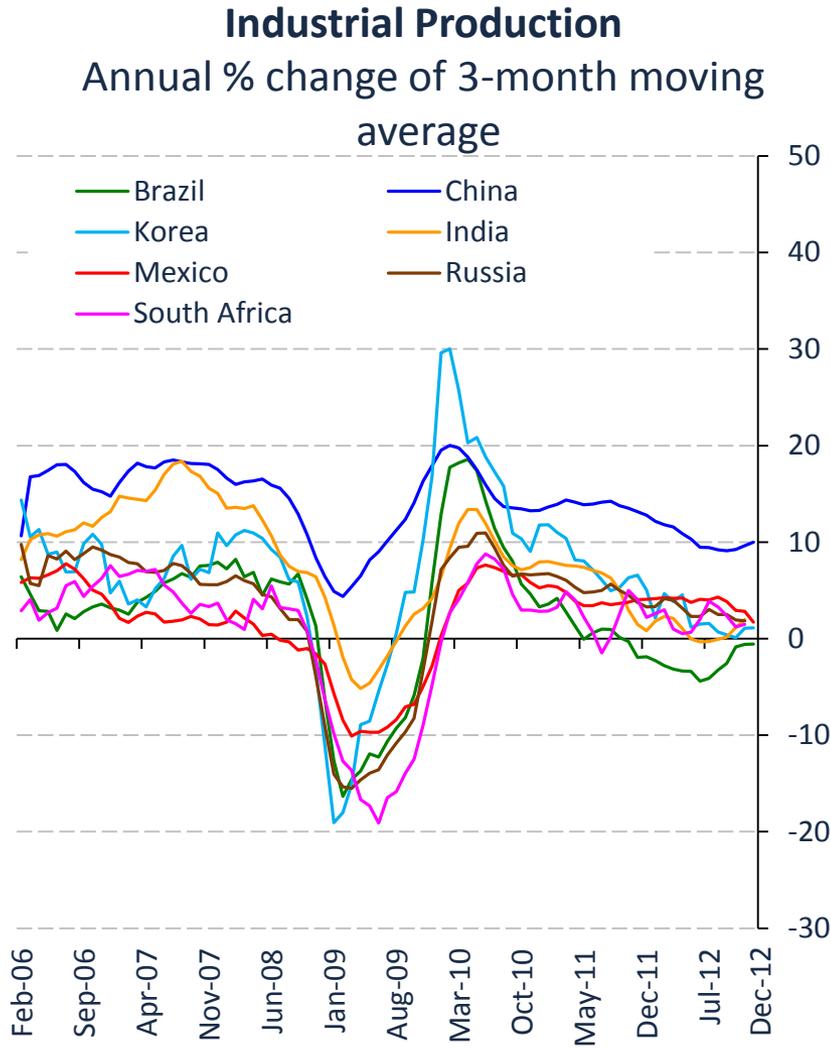
s.a./ Seasonally adjusted.  
Source: Eurostat.

**Consumer Confidence**  
Net % answers in basis points; s.a.

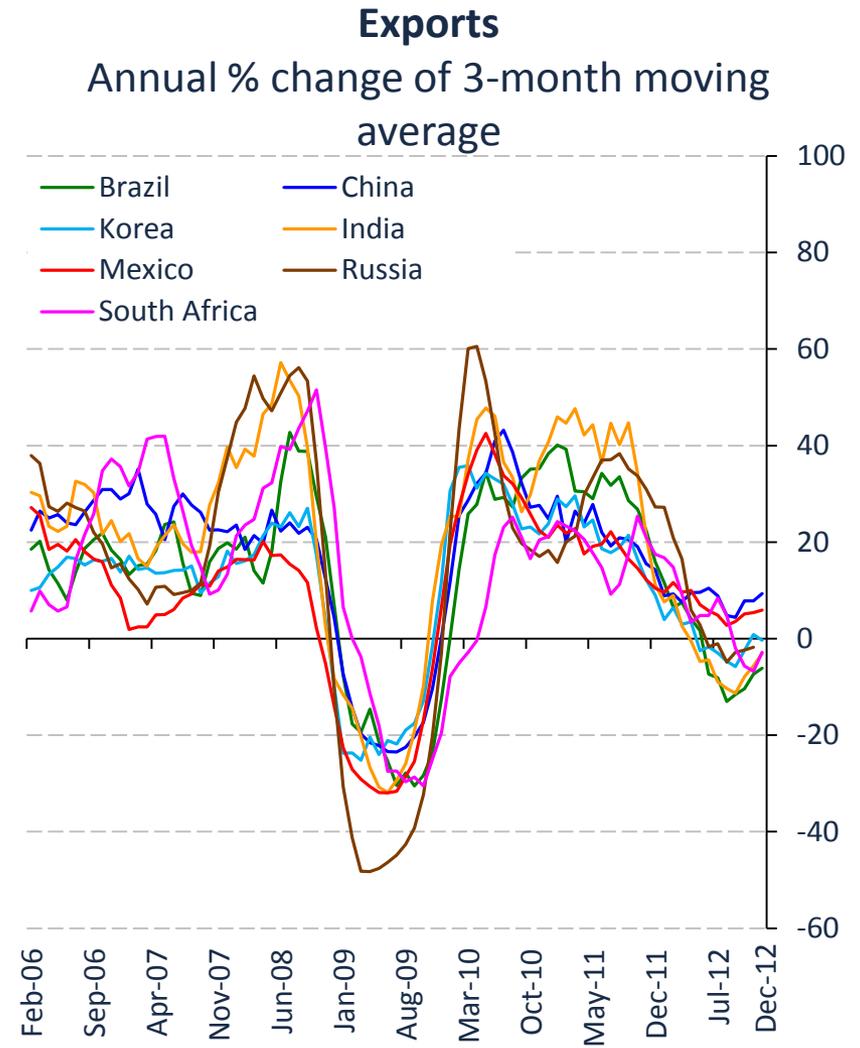


s.a./ Seasonally adjusted.  
Source: European Commission.

# The majority of main emerging economies has shown lower dynamism.



Source: Haver Analytics.

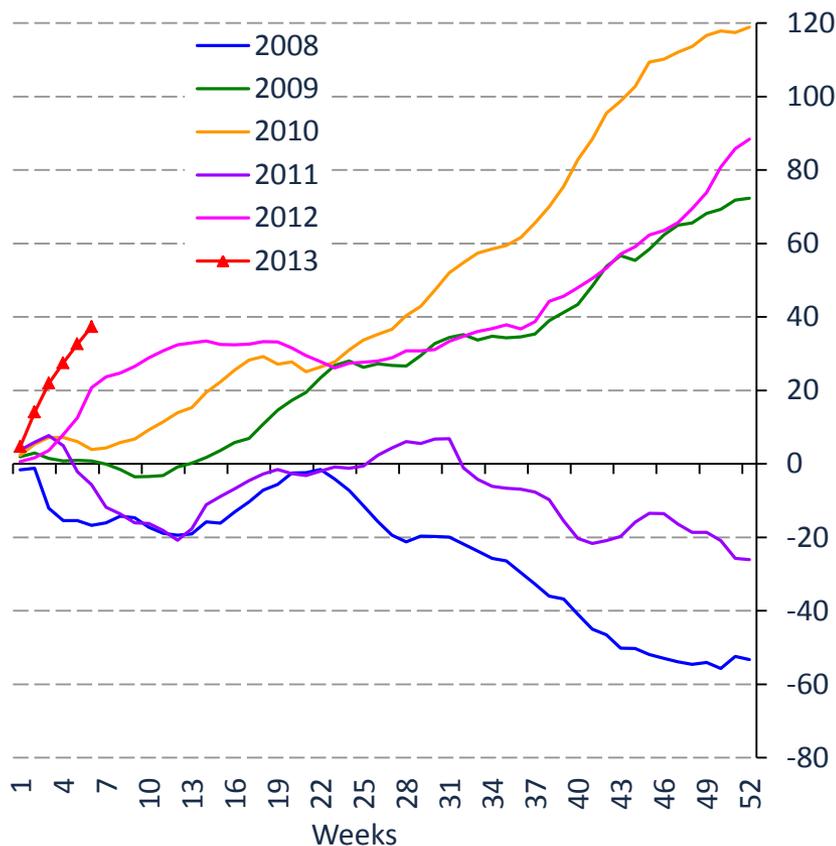


Source: Bloomberg and Haver Analytics.

The perception of lower risk at a global level translated in lower risk premia, leading to higher capital flows to emerging economies and their currencies' appreciation.

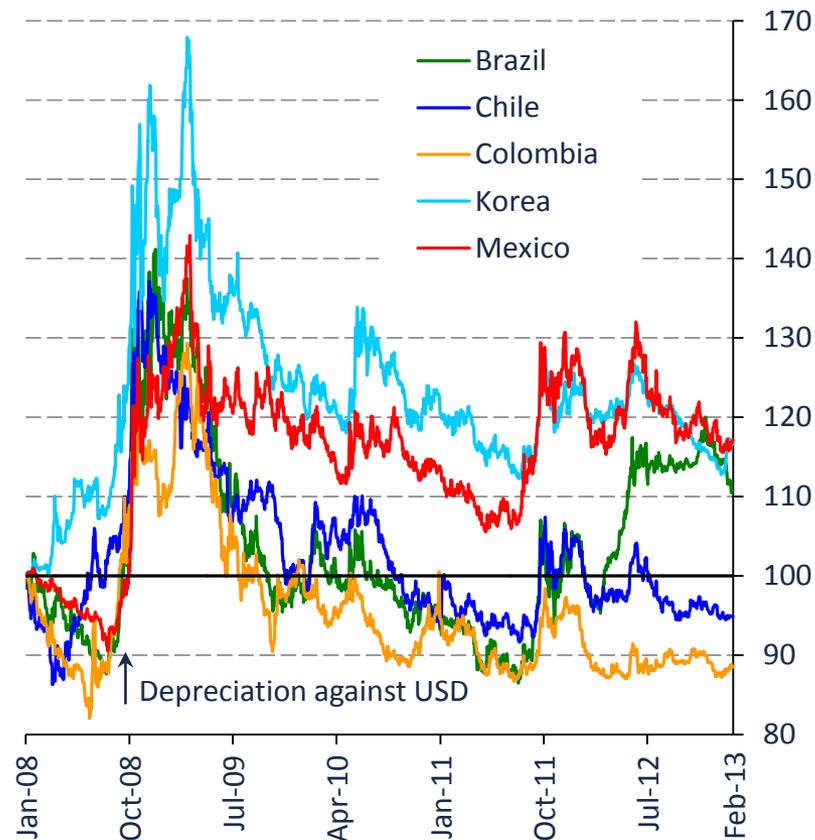
### Emerging Economies

Accumulated Capital Flows <sup>1/</sup>  
Billions of dollars



<sup>1/</sup> Debt and Equity.  
Source: Emerging Portfolio Fund Research.

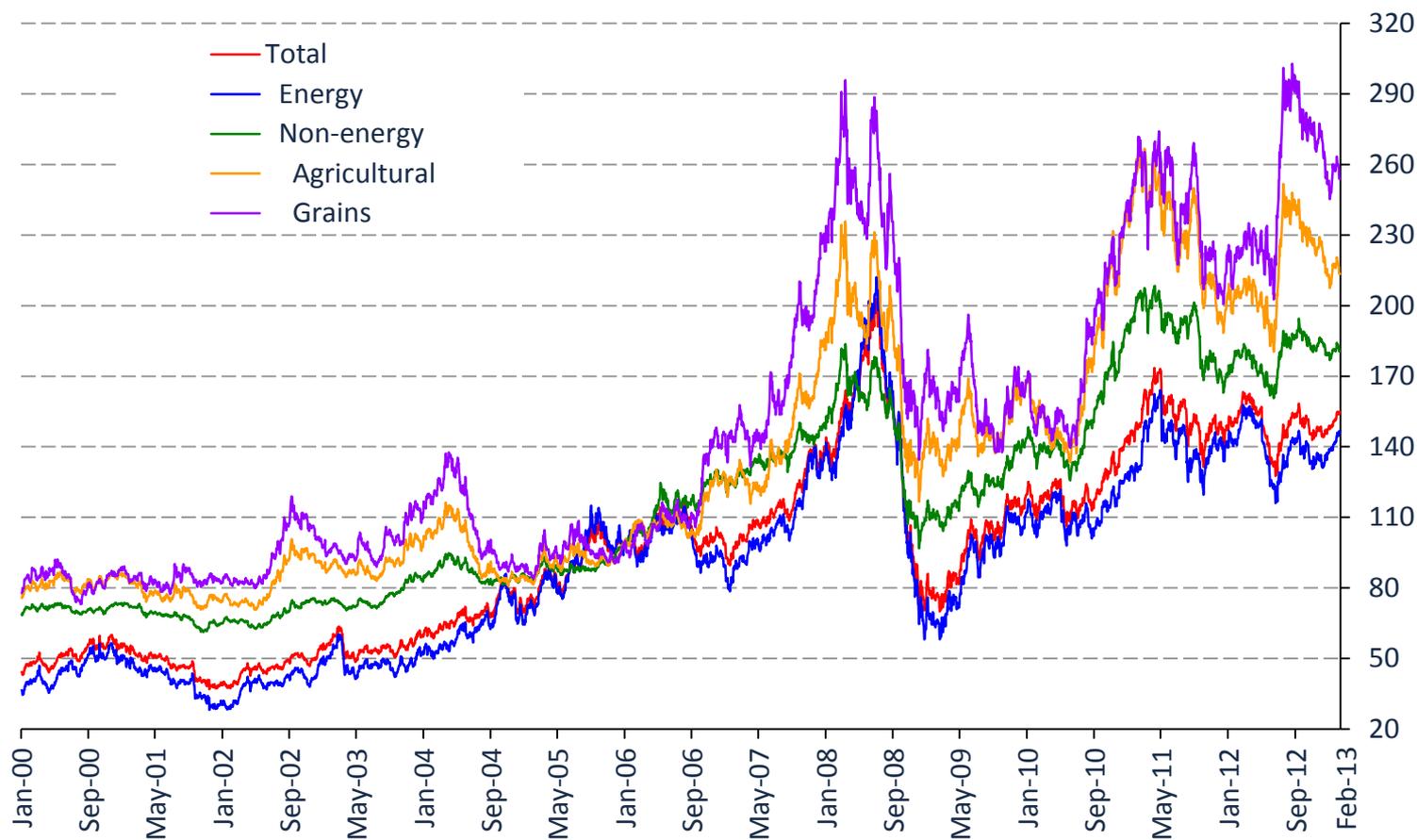
Exchange Rate  
Index 1-Jan-2008=100



Source: Bloomberg.

# International commodity prices observed a downward trend, although with some volatility.

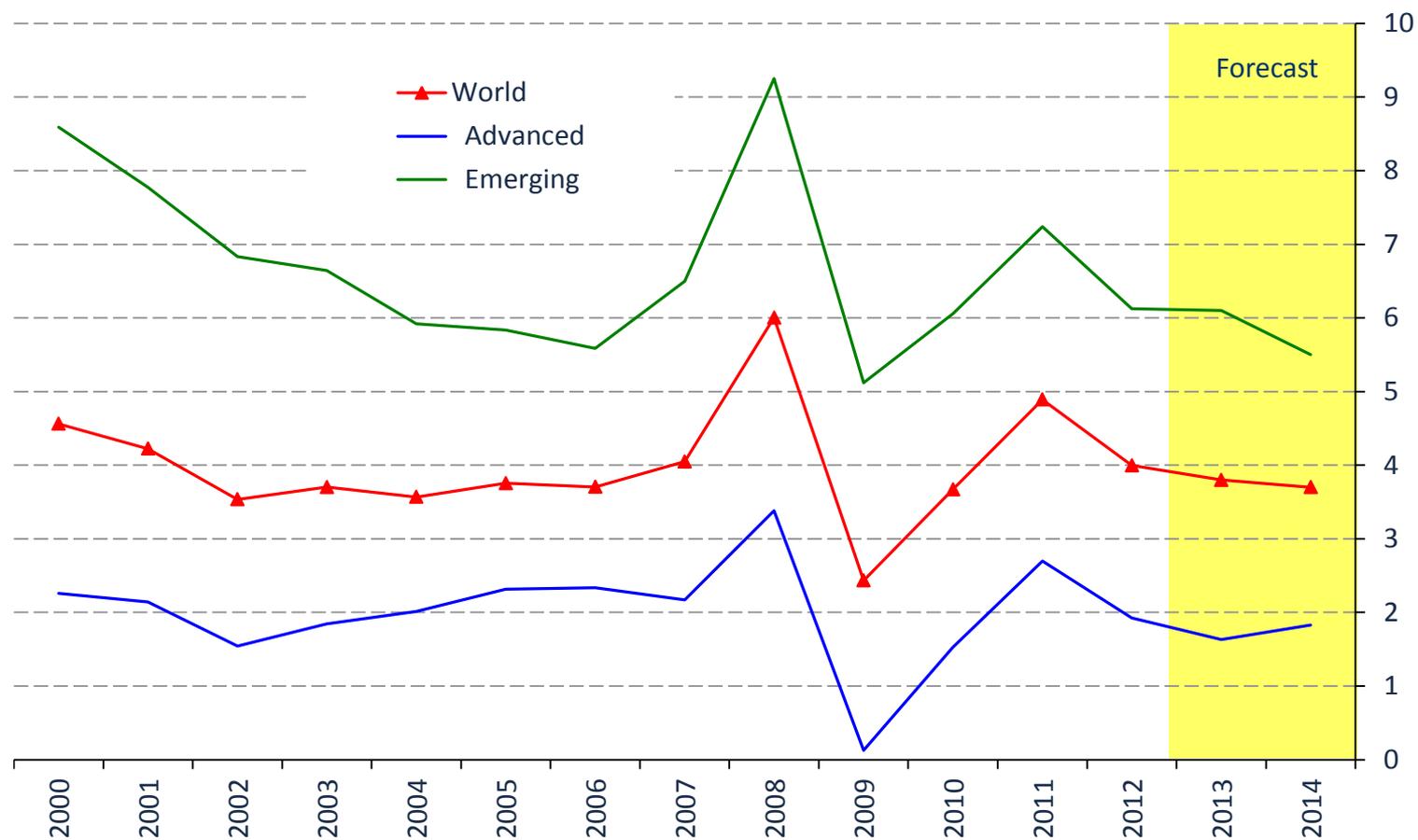
**Commodity Prices**  
Index 03-jan-2006 = 100



Source: Standard & Poor's.

# Inflation is expected to reduce in most countries in 2013.

## World Inflation Annual %



Source: International Monetary Fund.

# Outline

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**2** Economic Activity in Mexico

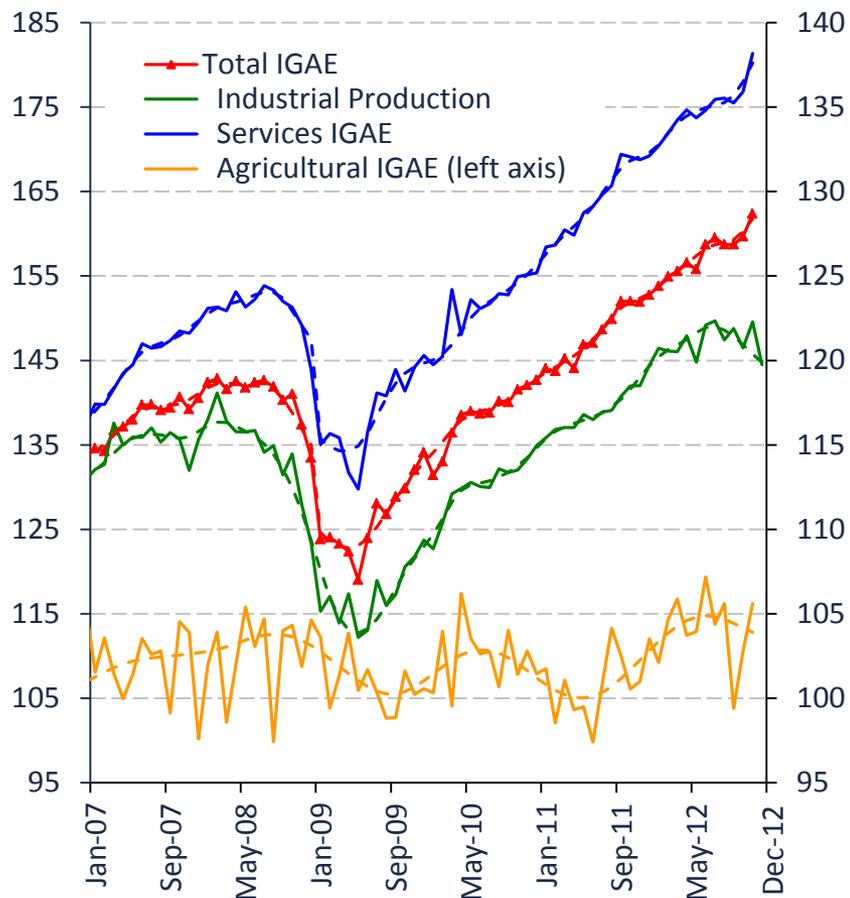
**3** Monetary Policy and Inflation  
Determinants

**4** Forecasts and Balance of Risks

# The macroeconomic policy stance led to a balanced growth of the economy, which is converging to its potential. This was reflected in low and fully fundable levels of external accounts.

## Economic Activity Indicators <sup>1/</sup>

Index 2003=100; s.a.

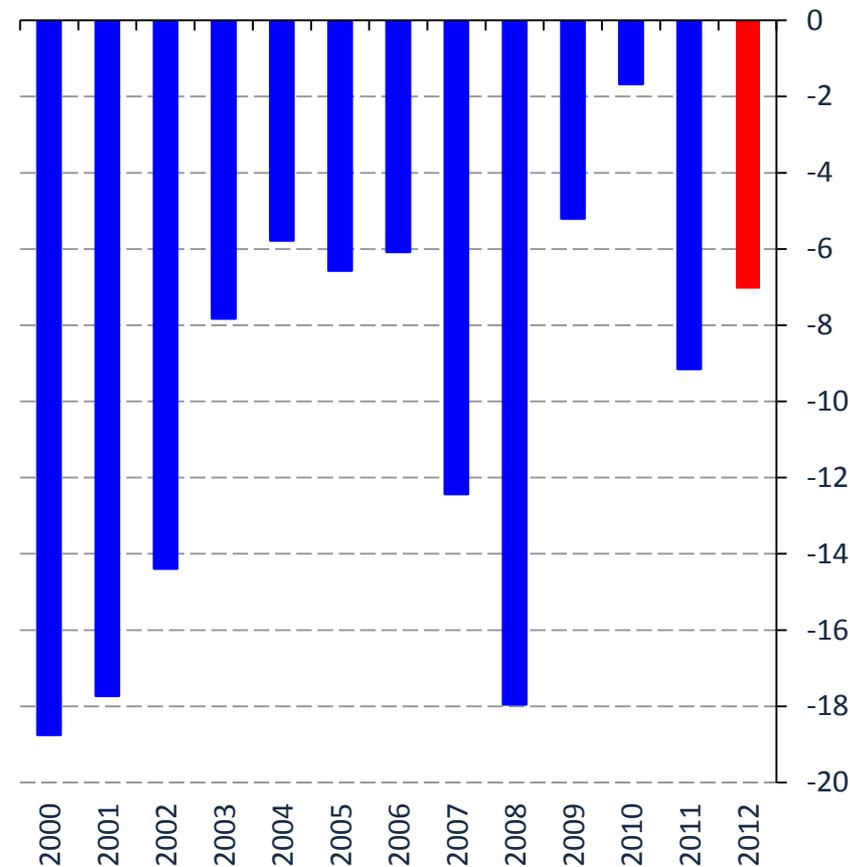


s.a./ Seasonally adjusted and trend data.

1/ Industrial production up to December 2012. Total IGAE, services and agricultural up to November 2012.

## Current Account <sup>2/</sup>

Billions of U.S. dollars

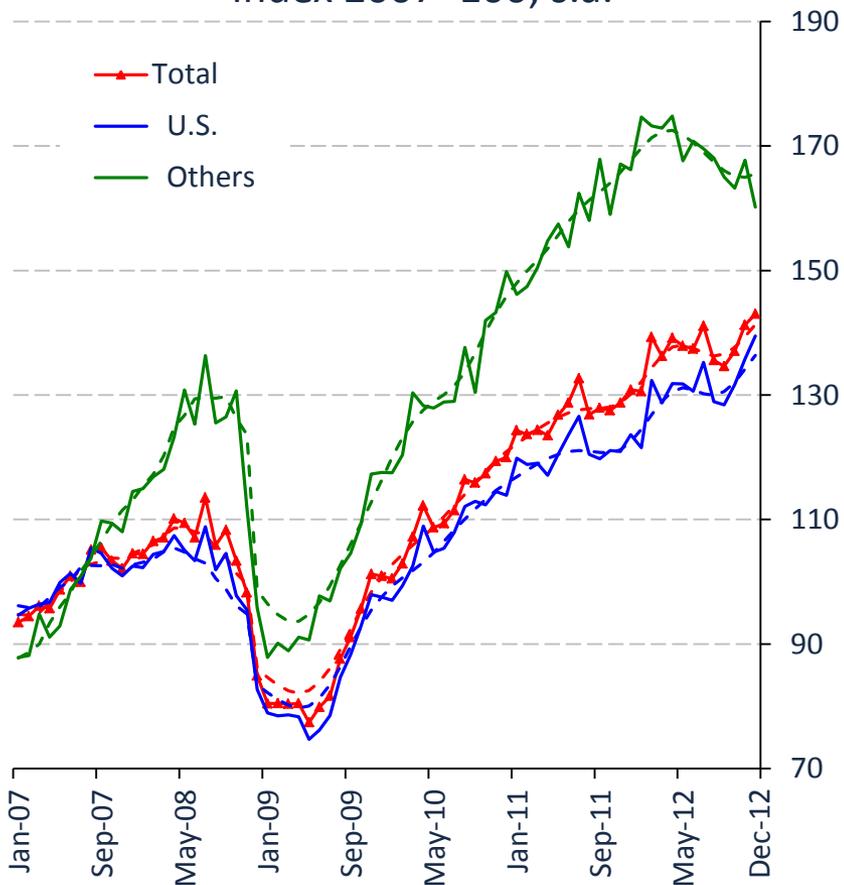


2/ Data for 2012 is a forecast.

Source: Banco de México.

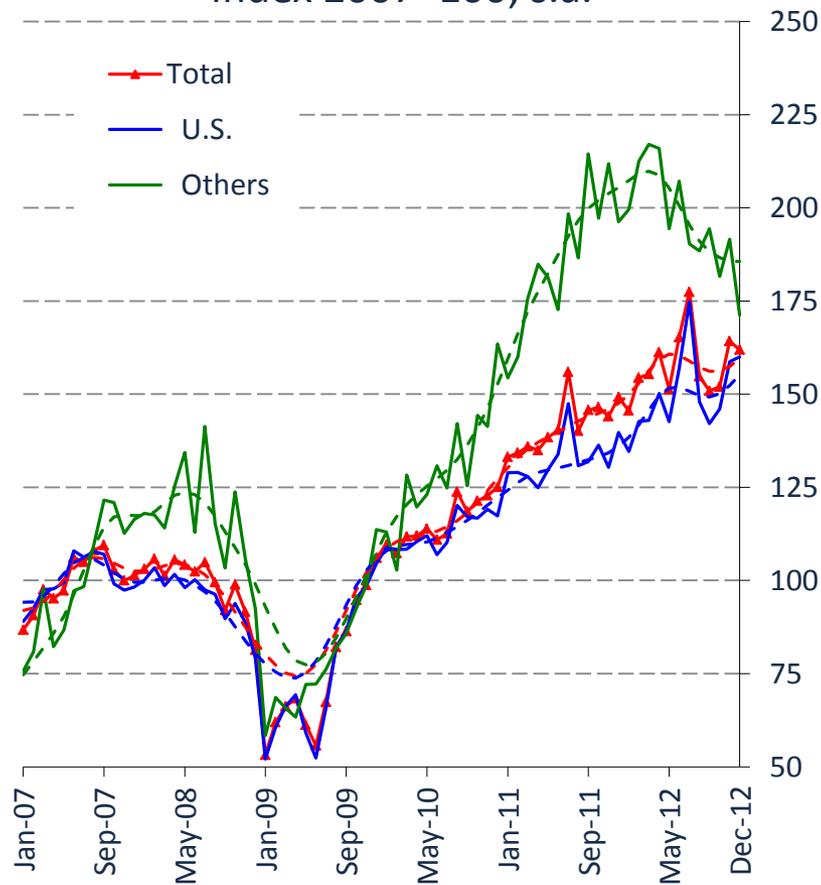
# The slowdown of the world economy was reflected in lower dynamism of exports as compared to the first half of 2012.

**Manufacturing Exports by Region of Destination**  
Index 2007=100; s.a.



s.a./ Seasonally adjusted and trend data.  
Source: Banco de México.

**Automobile Exports by Region of Destination**  
Index 2007=100; s.a.



s.a./ Seasonally adjusted and trend data.  
Source: Banco de México.

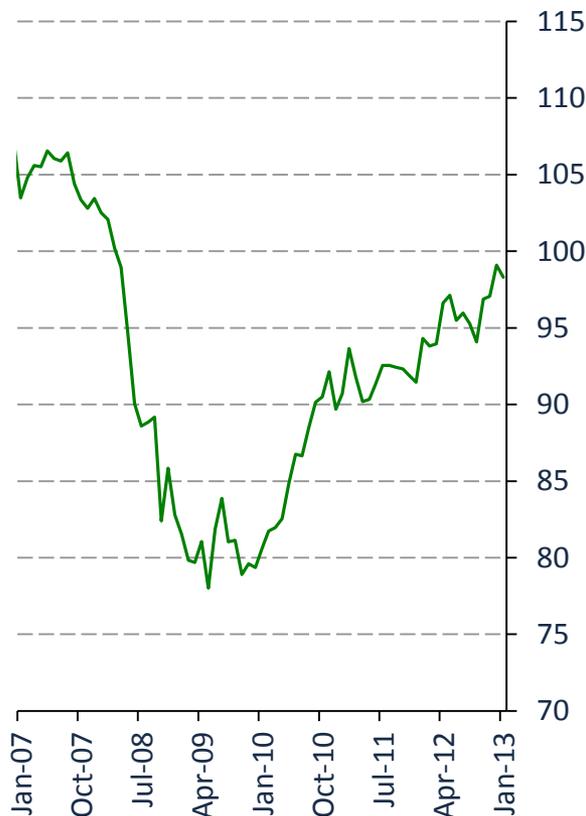
# Domestic demand kept expanding, although some of its components exhibited lower dynamism.

**Commercial Establishments' Retail Sales**  
Index 2003=100; s.a.



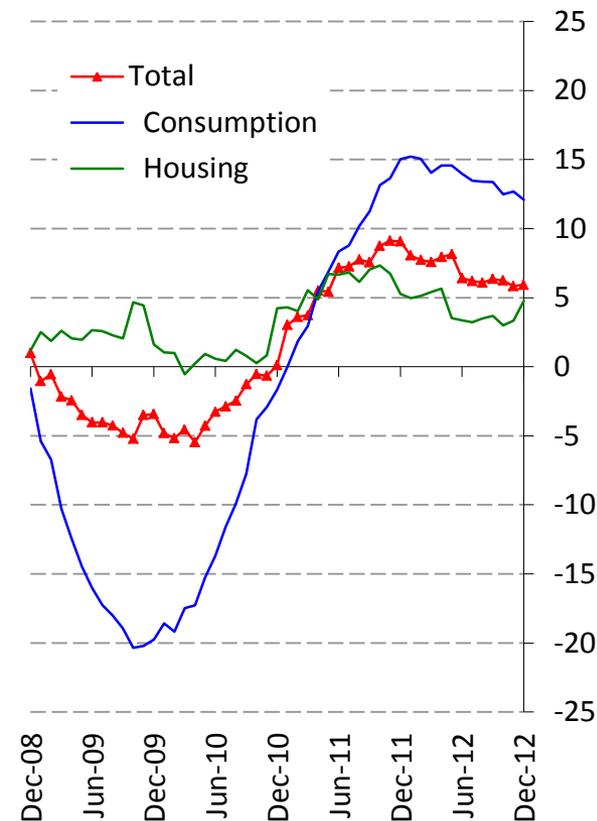
s.a./ Seasonally adjusted data.  
Source: INEGI.

**Consumer Confidence**  
Index Jan-2003=100; s.a.



s.a./ Seasonally adjusted data.  
Source: INEGI and Banco de México.

**Credit to Households <sup>1/</sup>**  
Real annual % change

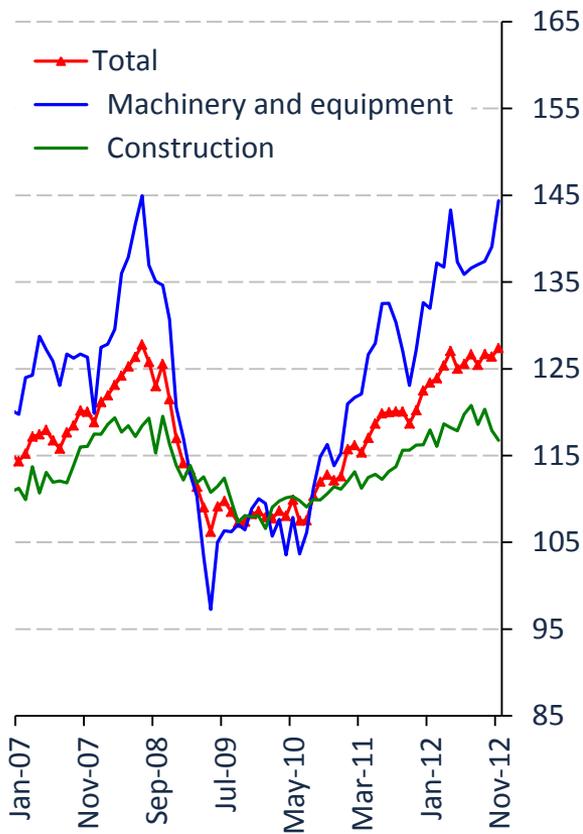


<sup>1/</sup> Refers to performing and non-performing credit. Includes credit from commercial banks and development banking, as well as other non-bank financial intermediaries. Housing also includes Infonavit and Fovissste credit.  
Source: Banco de México.

# Gross fixed investment has slowed down, mainly due to reduced dynamism of housing construction.

## Investment and its Components

Index 2005=100; s.a.



s.a./ Seasonally adjusted.  
Source: INEGI.

## Real Value of Production in Construction

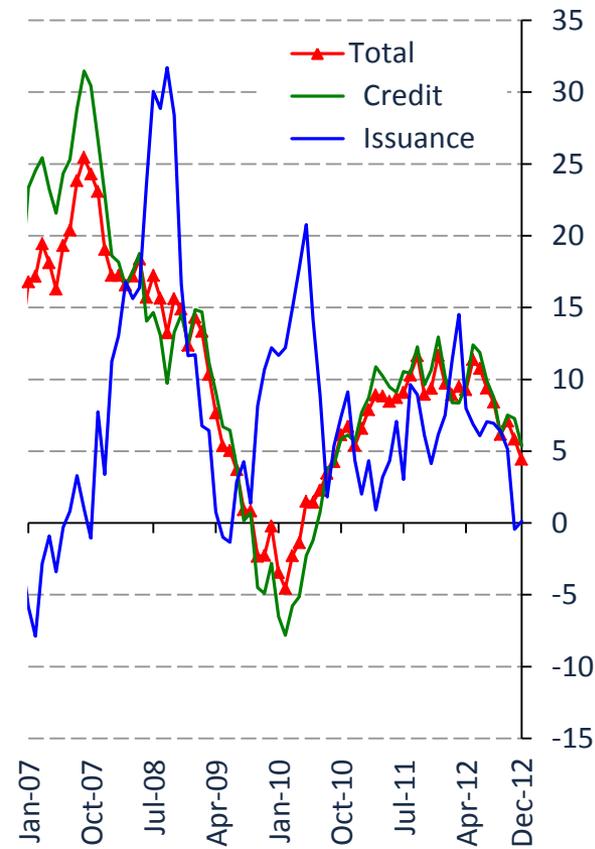
Index 2008=100; s.a.



s.a./ Seasonally adjusted.  
Source: INEGI and seasonally adjusted by Banco de México in the case of public and private construction (private housing and private excluding housing).

## Domestic Financing to Non-Financial Private Firms

Real annual % change



Source: Banco de México.

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Determinants

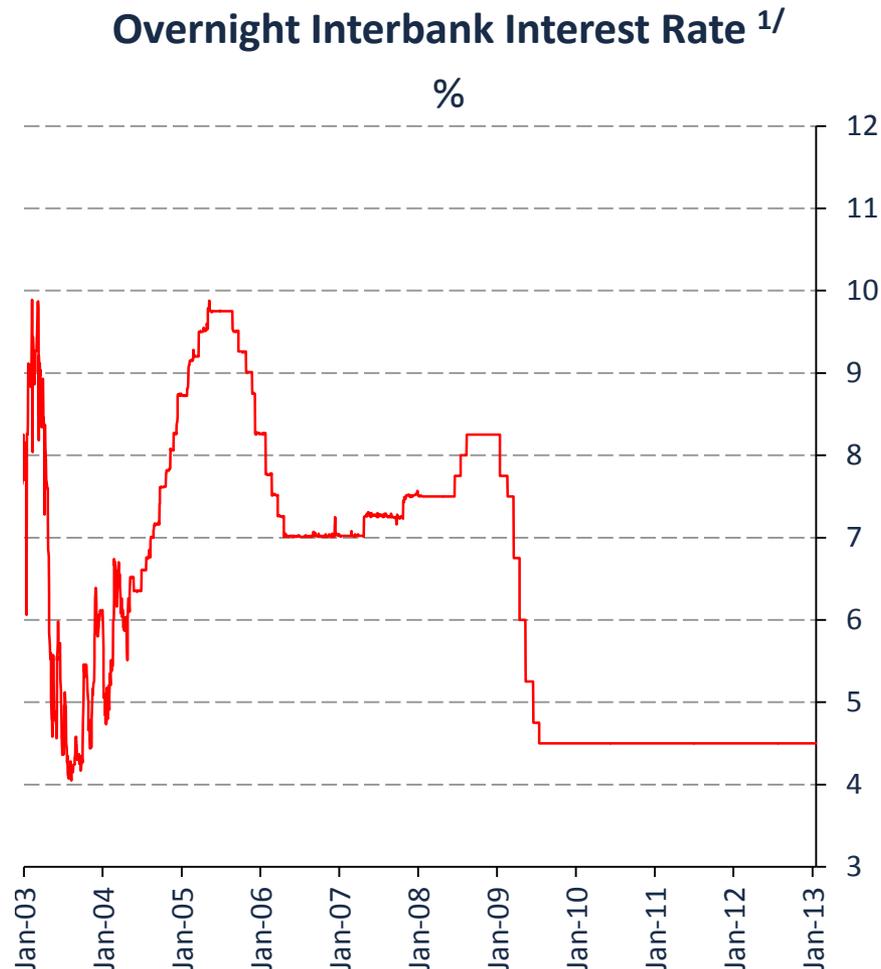
**4** Forecasts and Balance of Risks

# Monetary Policy and Inflation Determinants

- Inflation has registered a downward trend in recent years, converging to the 3 percent permanent target.
  - ✓ *Even though between May and September, 2012 a series of supply shocks propitiated a transitory rebound in inflation, the process of convergence towards the target was not interrupted.*
- The consolidation of an environment of low and stable inflation was possible due to the strengthening of the framework for macroeconomic policy conduction.
- This environment of certainty and macroeconomic stability has given rise, among others, to a reduction in risk premia –in particular those associated to inflation risk- and therefore, in interest rates.

# During 4Q 2012, Banco de México's Board of Governors maintained the target for the Overnight Interbank Interest Rate unchanged.

- This, given the transitory nature of the supply shocks which affected inflation in 3Q 2012.
- However, the Board of Governors expressed its disposition to increase the reference interest rate if:
  - ✓ *Shocks to inflation persist.*
  - ✓ *The upward trend of headline and core inflations does not revert.*

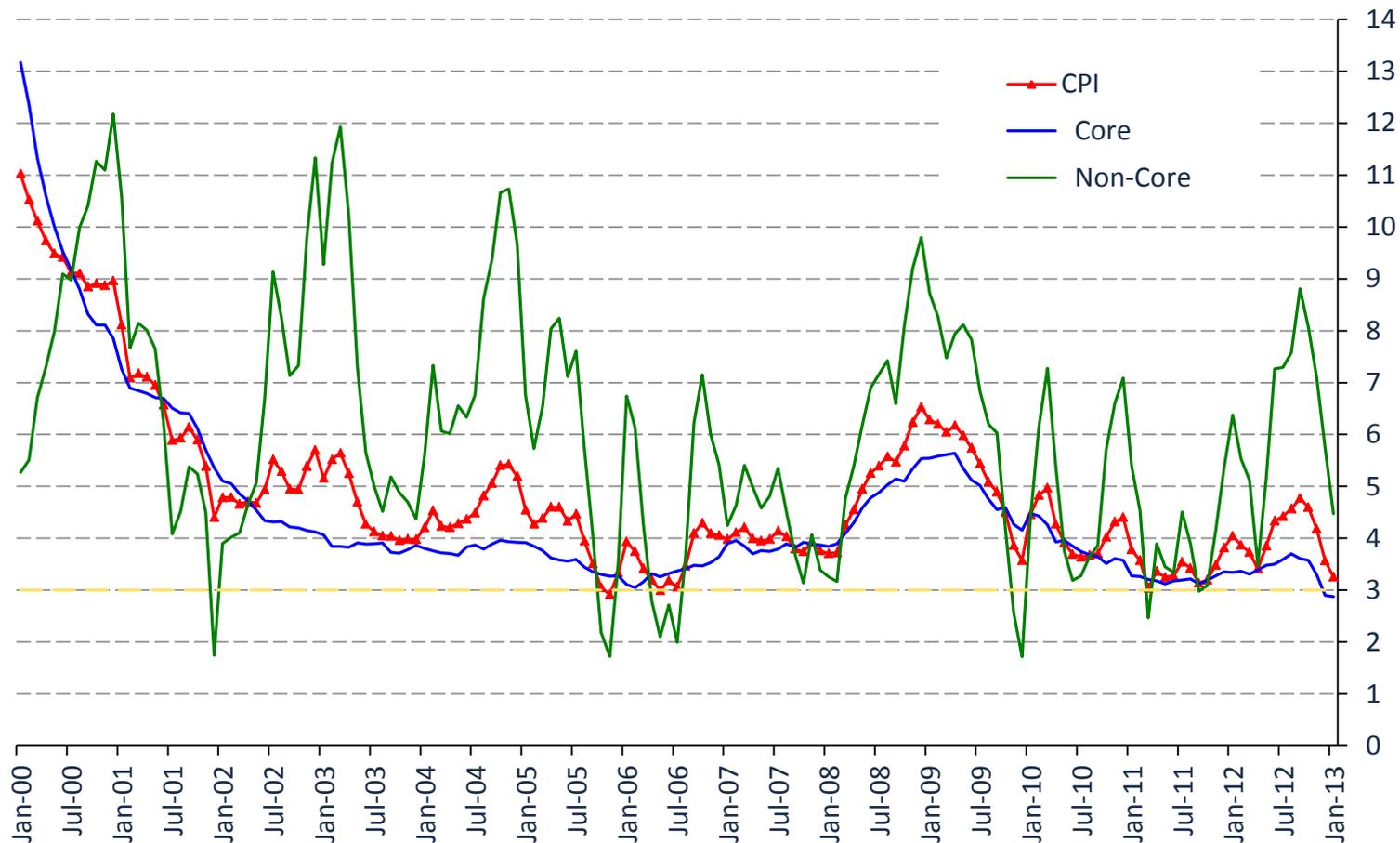


1/ Since January 21, 2008, the overnight interest rate corresponds to the target for the Overnight Interbank Interest Rate.

Source: Banco de México.

# During the last decade, inflation has been converging to the 3 percent permanent target.

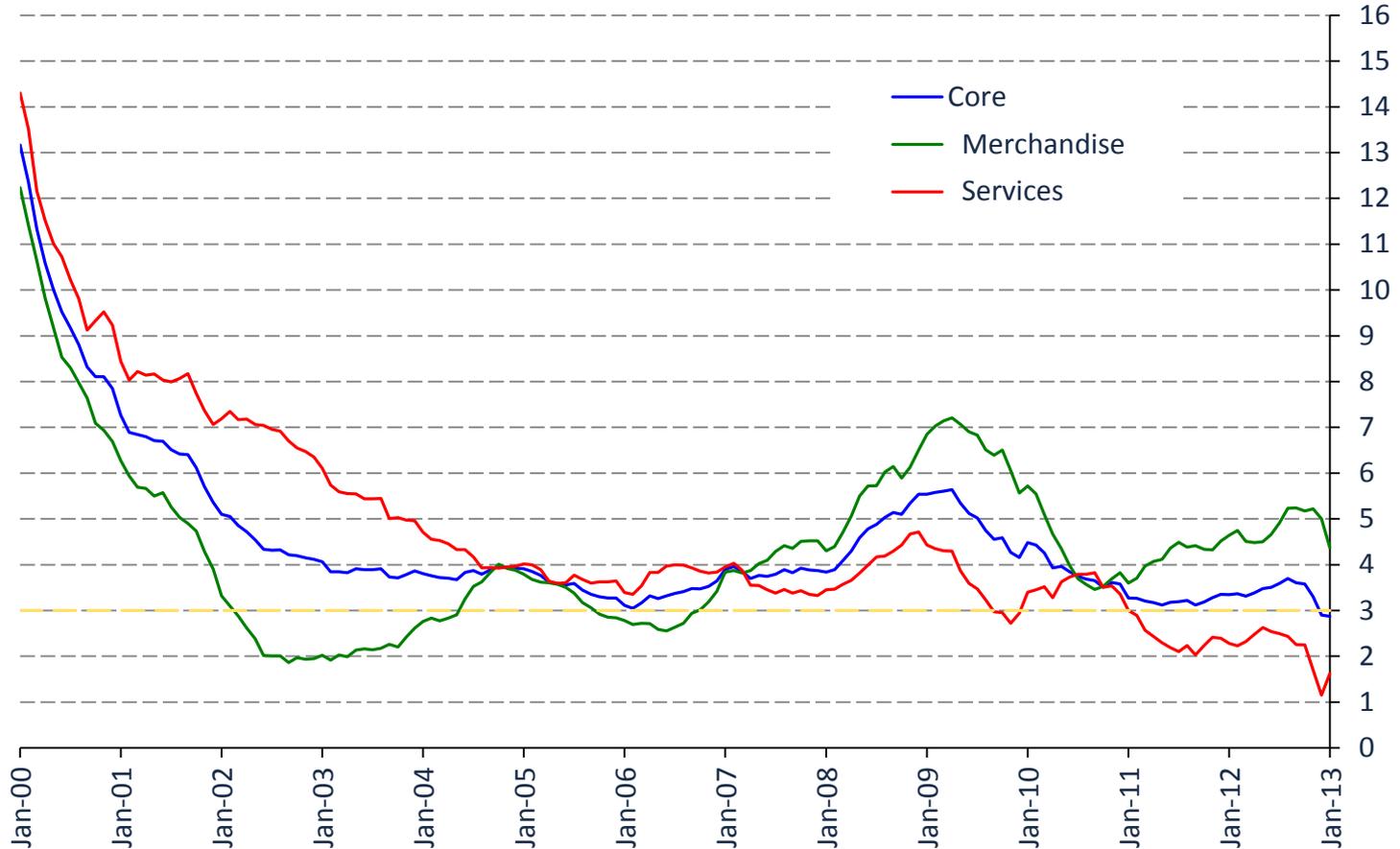
## Consumer Price Index Annual % change



Source: Banco de México and INEGI.

The annual change of the services core subindex, whose evolution to a larger extent reflects the domestic conditions affecting inflation, has maintained a downward trend during last decade.

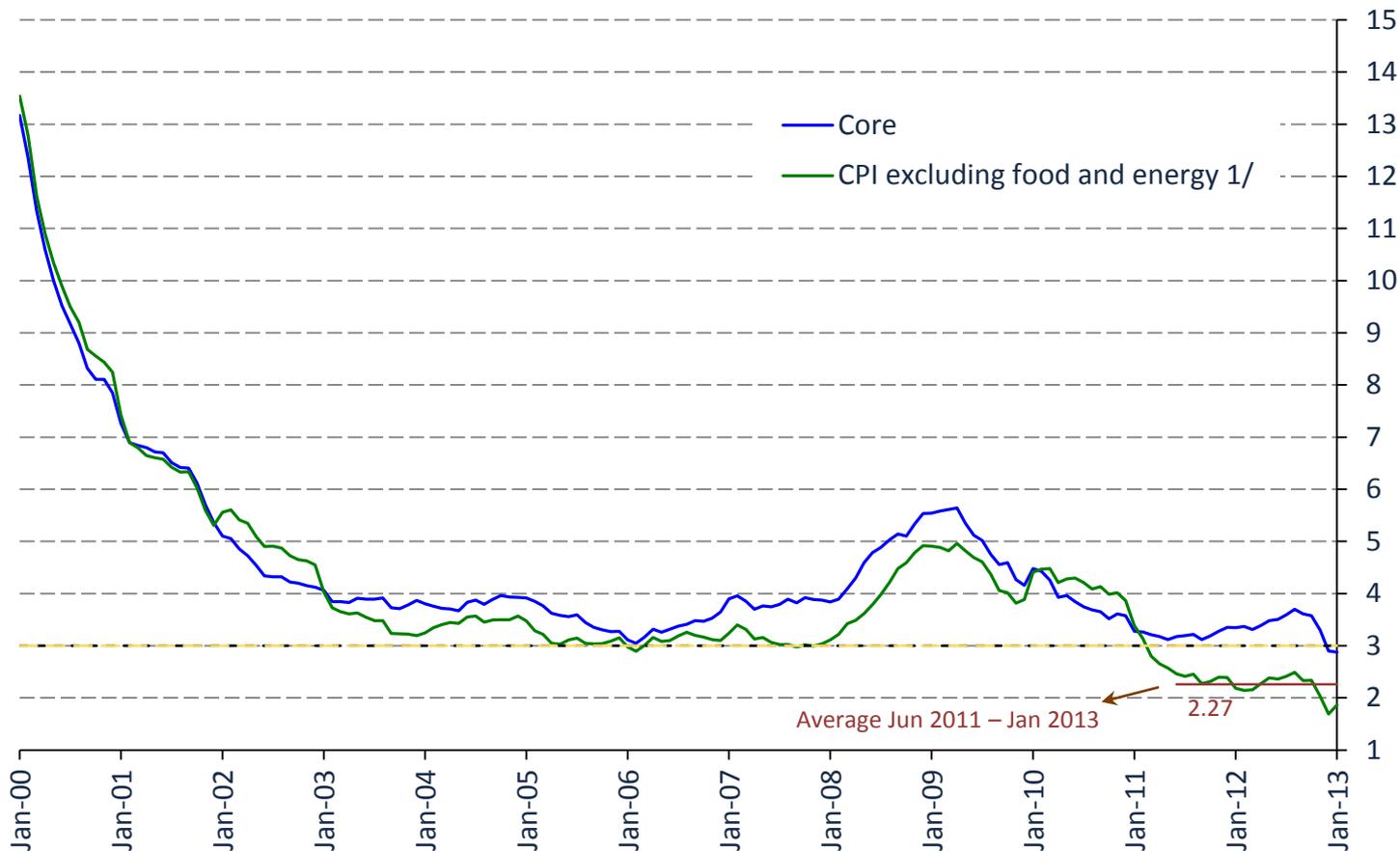
Core Price Subindex  
Annual % change



Source: Banco de México and INEGI.

Another indicator of the convergence of inflation towards lower levels is inflation that excludes both food and energy items from the general index.

**Core Price Subindex and CPI Excluding Food and Energy <sup>1/</sup>**  
Annual % change

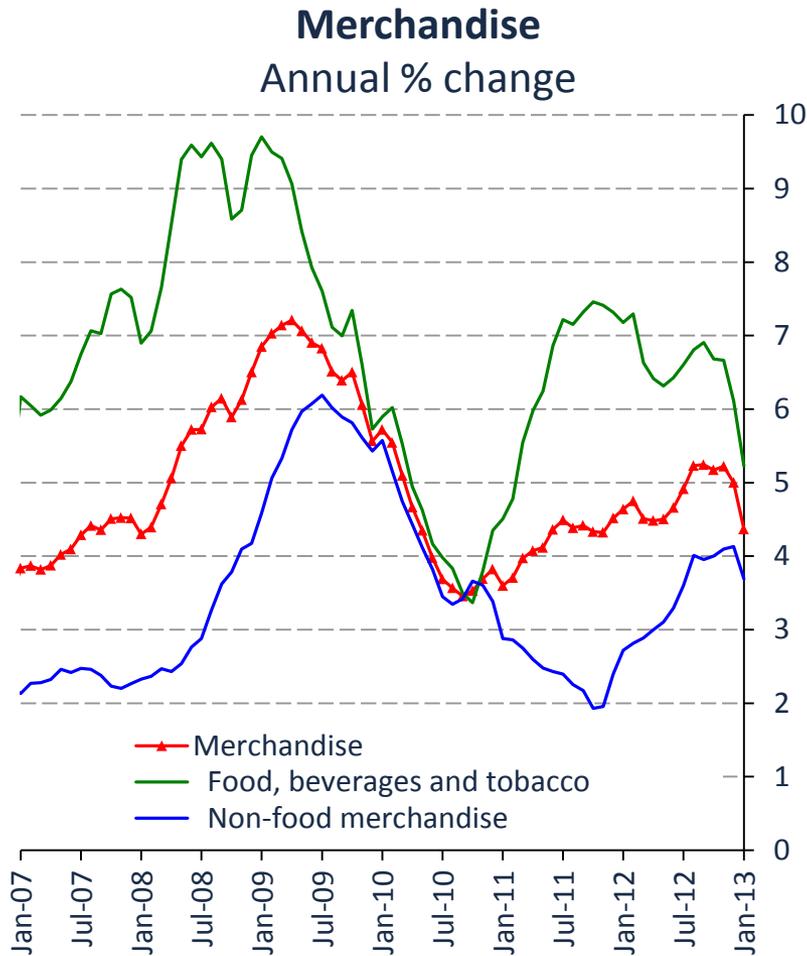


1/ Excluding food at home (raw and processed foods and non-alcoholic beverages), food outside home, and energy.

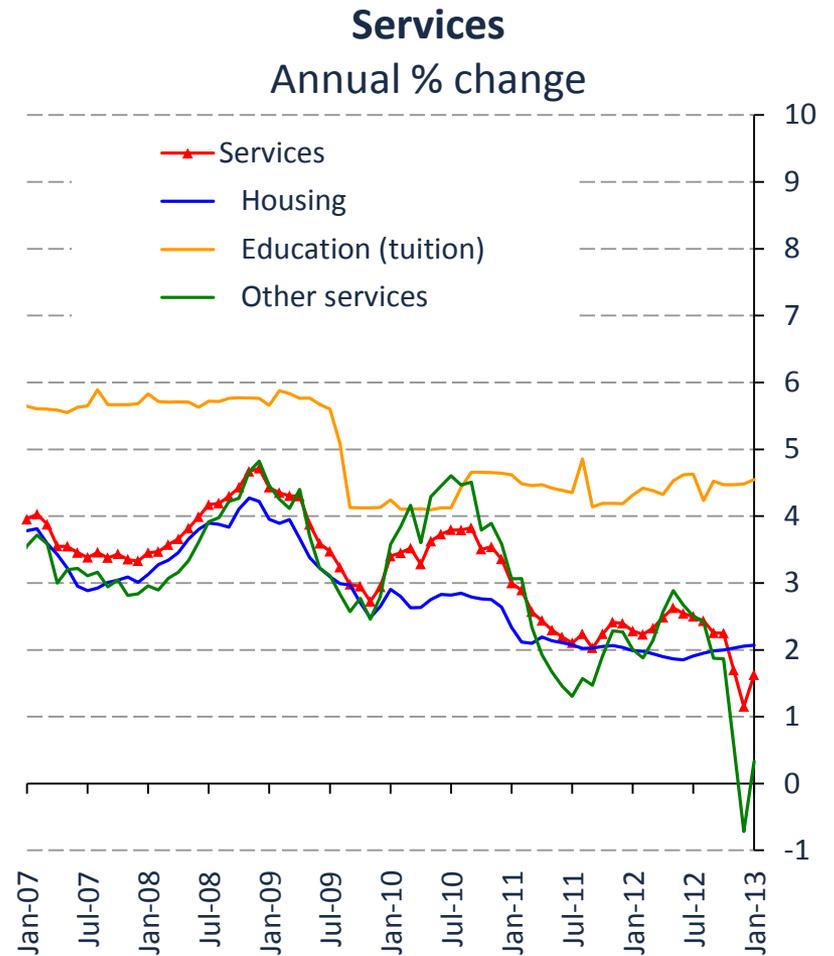
Source: Banco de México and INEGI.

# The recent core inflation decrease was a result of lower incidence of the merchandise and services price subindex.

## Core Price Subindex



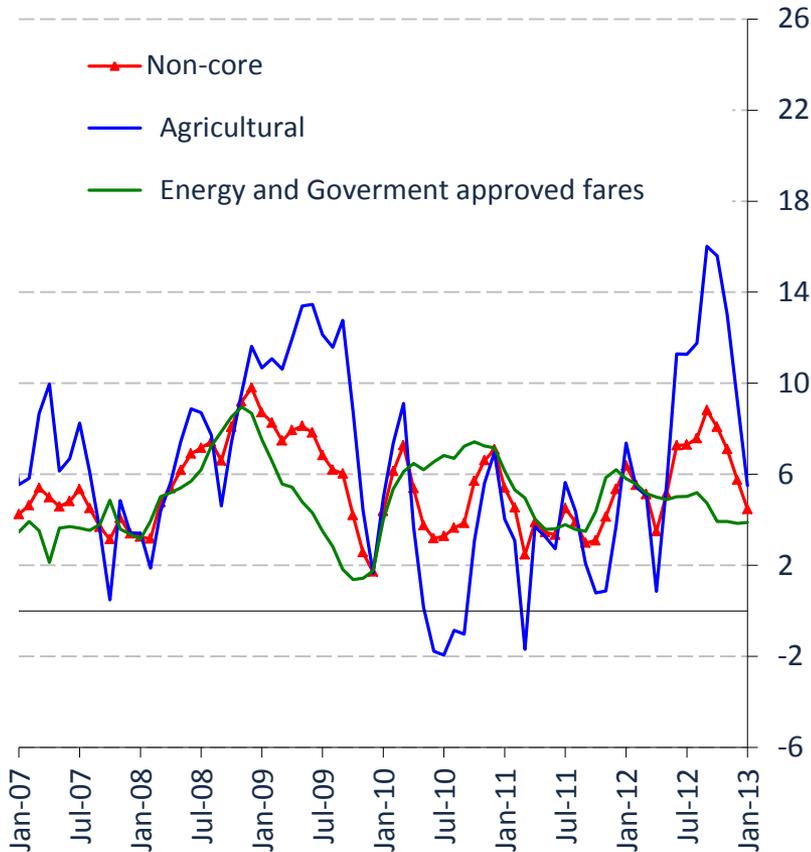
Source: Banco de México and INEGI.



Source: Banco de México and INEGI.

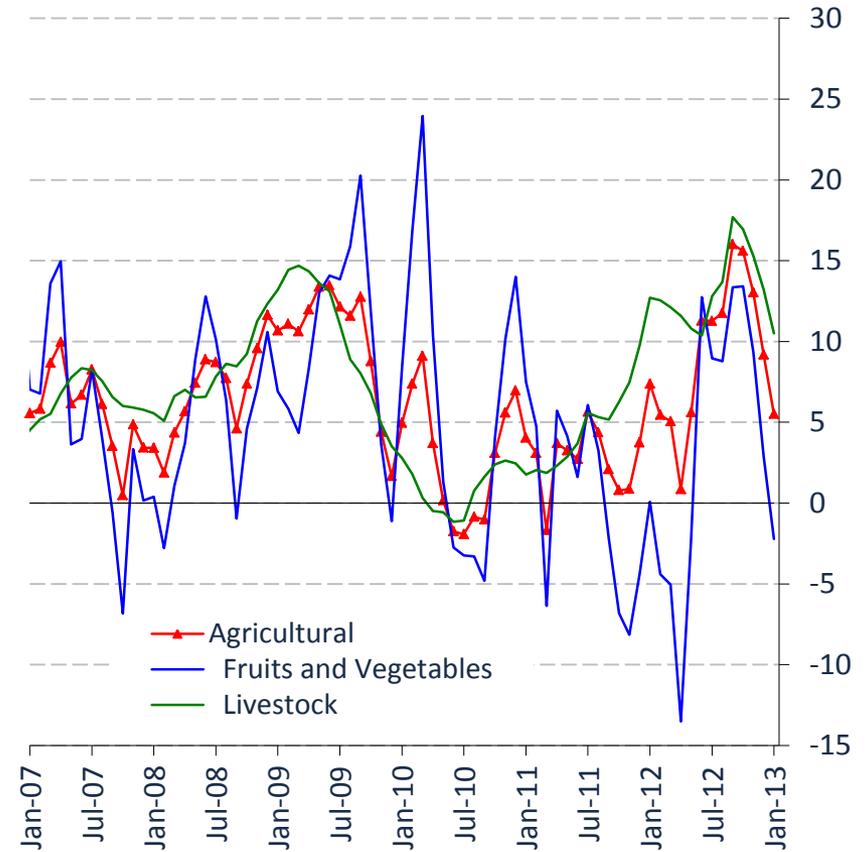
# Shocks affecting inflation in 3Q 2012 began dissipating by the end of the year, leading to a considerable reduction in non-core inflation.

## Non-Core Inflation Annual % change



Source: Banco de México and INEGI.

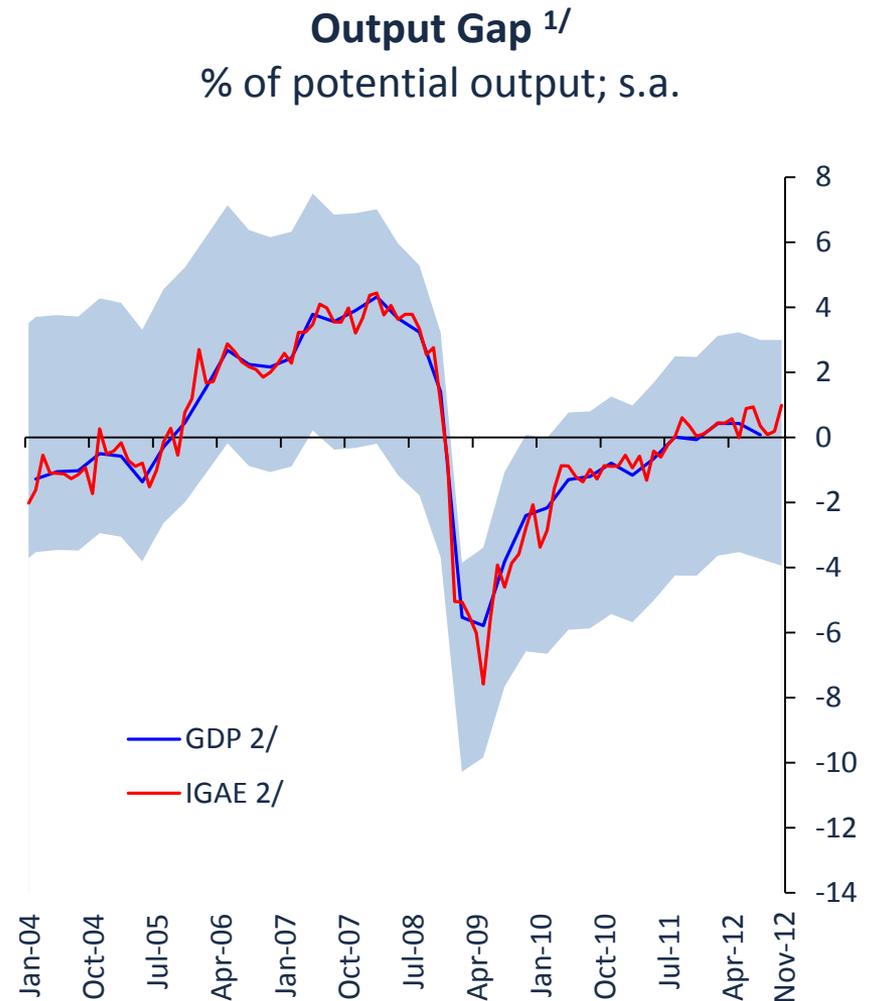
## Subindex of Agricultural Products Prices Annual % change



Source: Banco de México and INEGI.

# During 2012, Mexico's economic growth led the activity levels to converge in an orderly manner towards the productive potential of the country.

- Different slackness indicators suggest that in 4Q 2012 no demand-related pressures emerged.
- Thus, the output gap indicator continued close to zero.



s.a./ Calculated with seasonally adjusted data.

1/ Estimated using the Hodrick-Prescott (HP) filter with tail correction method; see Banco de México (2009), "Inflation Report April-June 2009", p.69. The shaded area is the 95% confidence interval of the output gap, calculated with an unobserved components method.

2/ GDP figures up to the third quarter of 2012; IGAE up to November 2012.

Source: Calculated by Banco de México with data from INEGI.

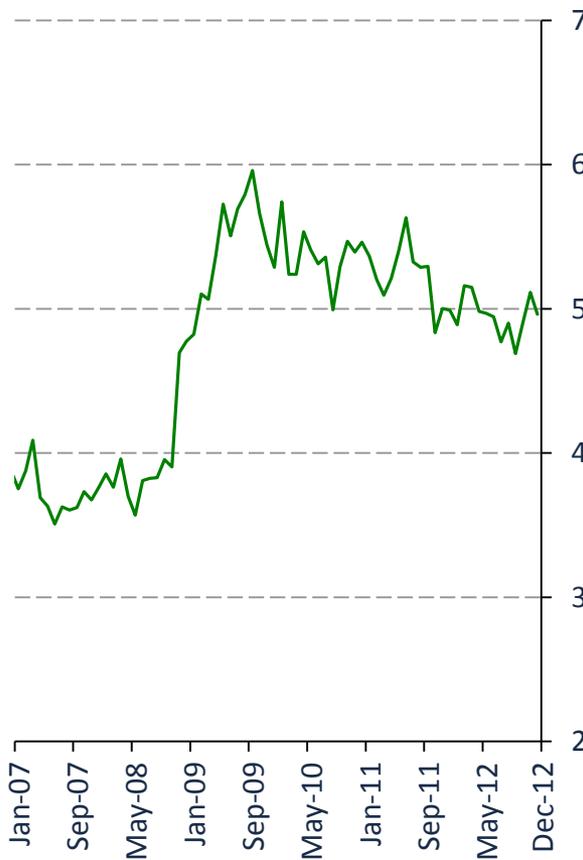
# The labor market recovery has been in line with the economic growth capacity, without generating inflationary pressures.

**IMSS-insured Workers <sup>1/</sup>**  
Million workers



<sup>1/</sup> Permanent and temporary workers in urban areas.  
Source: IMSS and seasonally adjusted by Banco de México.

**National Unemployment Rate**  
% of EAP; s.a.



s.a./ Seasonally adjusted.  
Source: National Employment Survey (*Encuesta Nacional de Ocupación y Empleo*), INEGI.

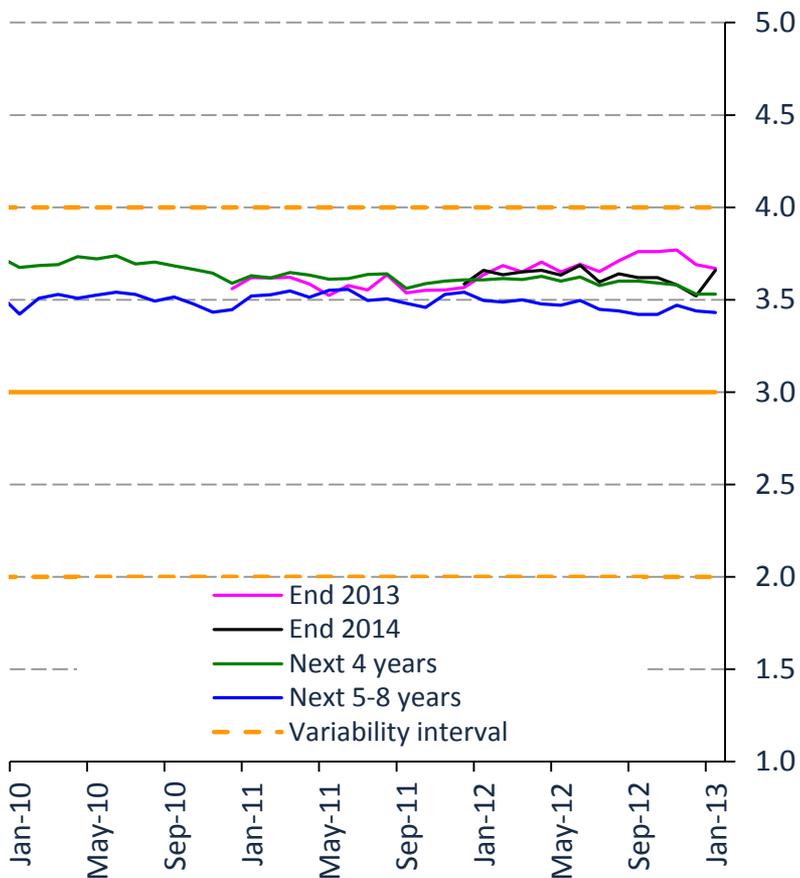
**IMSS Reference Wage <sup>2/</sup>**  
Annual % change



<sup>2/</sup> The IMSS Reference wage (*Salario Base de cotización*) considers the daily average earnings of IMSS-insured workers during a certain period and the sum fringe benefits (e.g., end-of-year bonuses, vacation bonuses and commissions).  
Source: Calculated by Banco de México with data from IMSS and STPS.

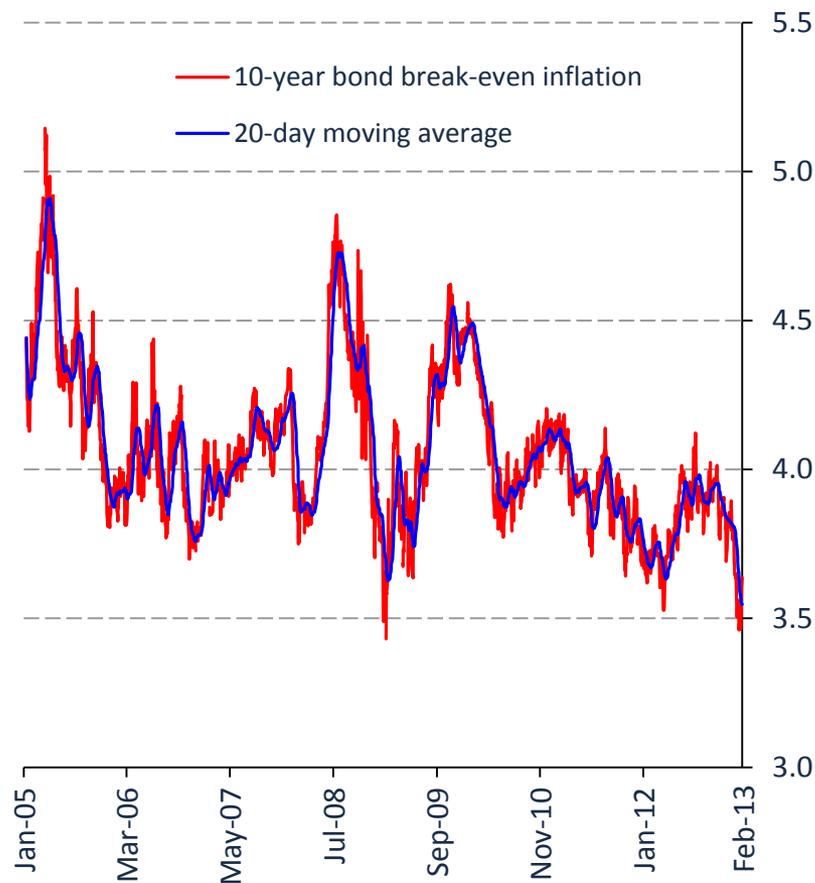
# Inflation expectations remained stable and the recent decrease in break-even inflation and inflationary risk could be reflecting a fall in this premium.

## Headline Inflation Expectations %



Source: Banco de México's survey.

## Break-even Inflation and Inflationary Risk <sup>1/</sup> %



<sup>1/</sup> The break-even inflation and inflationary risk implicit in 10-year bonds is calculated based on nominal and real interest rates of the secondary market.

Source: Banco de México estimate with data from Valmer.

## Progress in controlling inflation

Reduced level,  
volatility and  
persistence of  
inflation

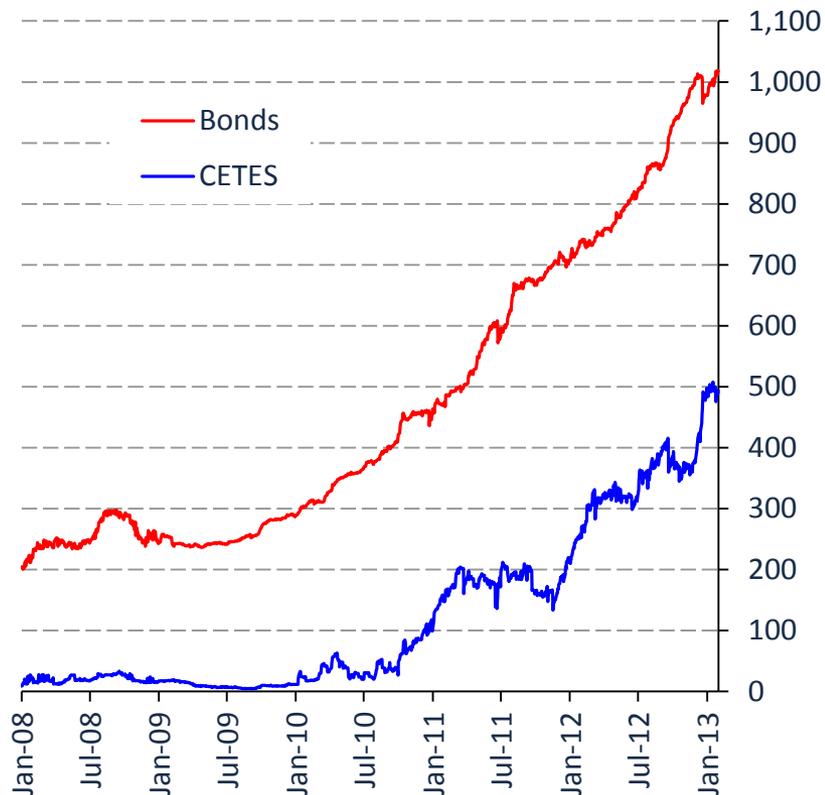
Orderly  
adjustments in  
relative prices and  
without second  
round effects

Lower effect of  
exchange rate  
fluctuations or  
increases in  
international  
commodity prices on  
inflation

Anchored  
inflation  
expectations

# As a result of confidence in the Mexican economy, government securities' holdings by foreign investors continued expanding and the Mexican peso appreciated.

**Government Securities Holdings by Foreign Investors**  
Billions of pesos



**Exchange Rate and its Expectations for the End of 2013 and 2014 <sup>1/</sup>**  
Pesos per dollar



Fuente: Banco de México.

<sup>1/</sup> The observed exchange rate is the daily FIX exchange rate. The latest data for the observed exchange rate is February 12, 2013 and the foreign exchange rate forecasts is February 5, 2013.

Source: Banco de México and Banamex survey.

# Domestic interest rates decreased close to historical minimum levels.

## Interest Rates of Government Securities <sup>1/</sup>

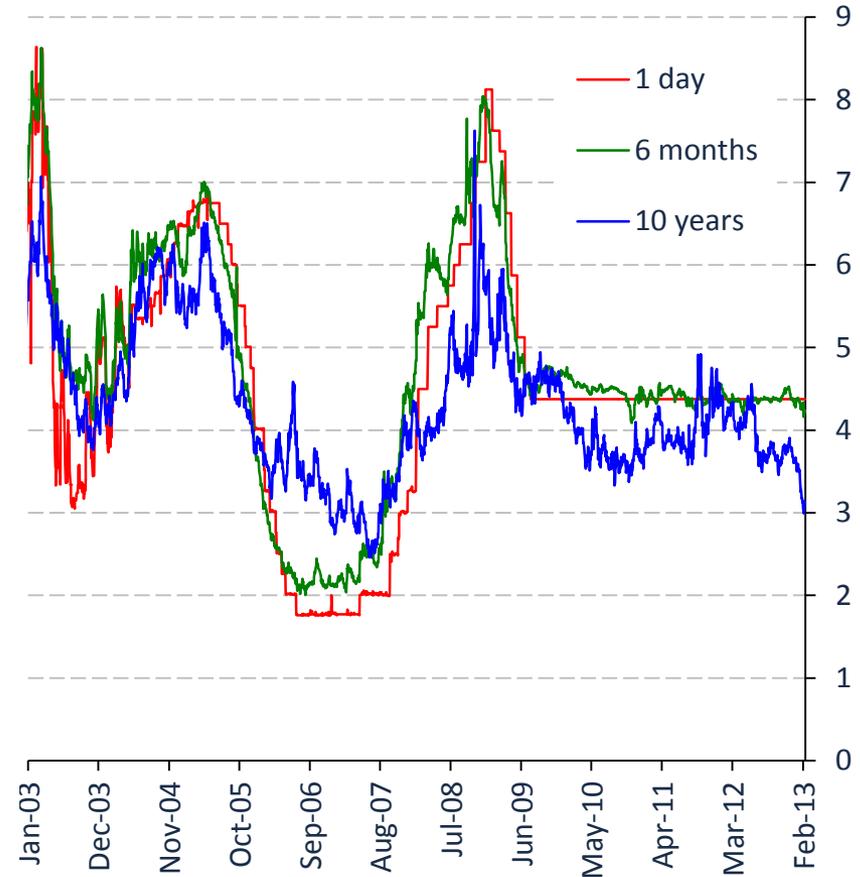
%



<sup>1/</sup> Since January 21, 2008, the one-day (overnight) interest rate corresponds to the target for the Overnight Interbank Interest Rate. Source: Banco de México and Proveedor Integral de Precios (PiP).

## Interest Rate Differential Between Mexico and the U.S.

Percentage points



Source: Banco de México, Proveedor Integral de Precios (PiP) and U.S. Treasury.

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The forecast growth scenario shows the economy's convergence to its growth potential without presenting inflationary pressures and with a fully fundable current account deficit.

## GDP growth:

- ✓ *Between 3.0 and 4.0% in 2013.*
- ✓ *Between 3.2 and 4.2% in 2014.*

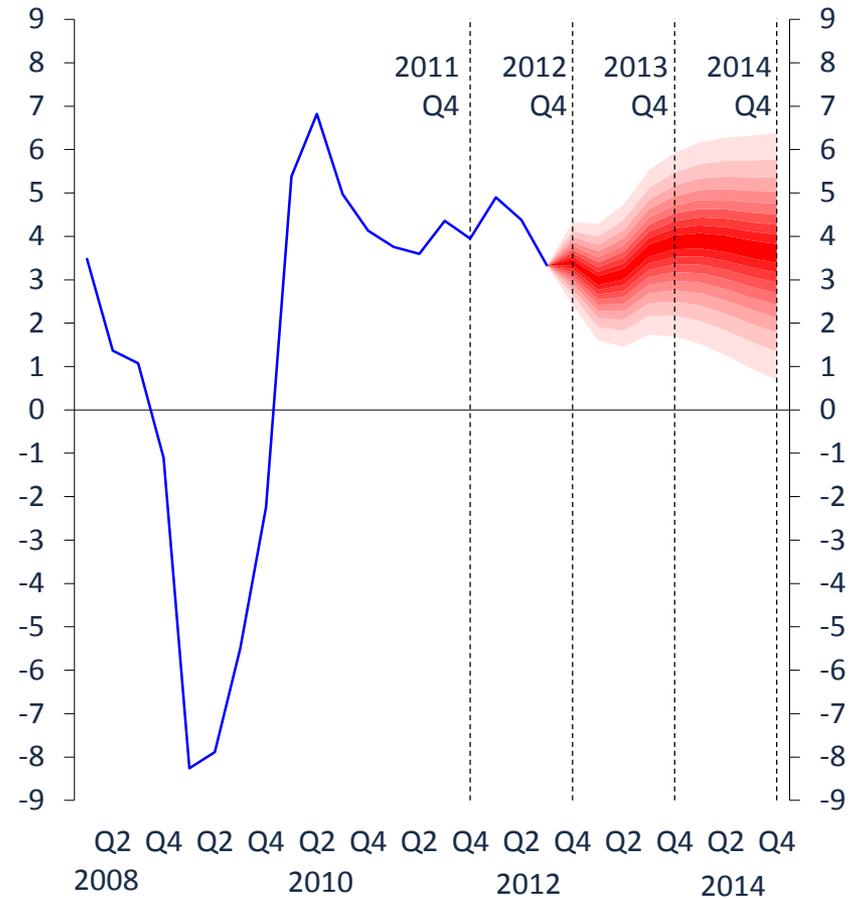
## Increase in the number of IMSS-insured workers:

- ✓ *Between 550 and 650 thousand in 2013.*
- ✓ *Between 700 and 800 thousand in 2014.*

## Current Account:

- ✓ *1.3 in percent of GDP in 2013.*
- ✓ *1.7 in percent of GDP in 2014.*

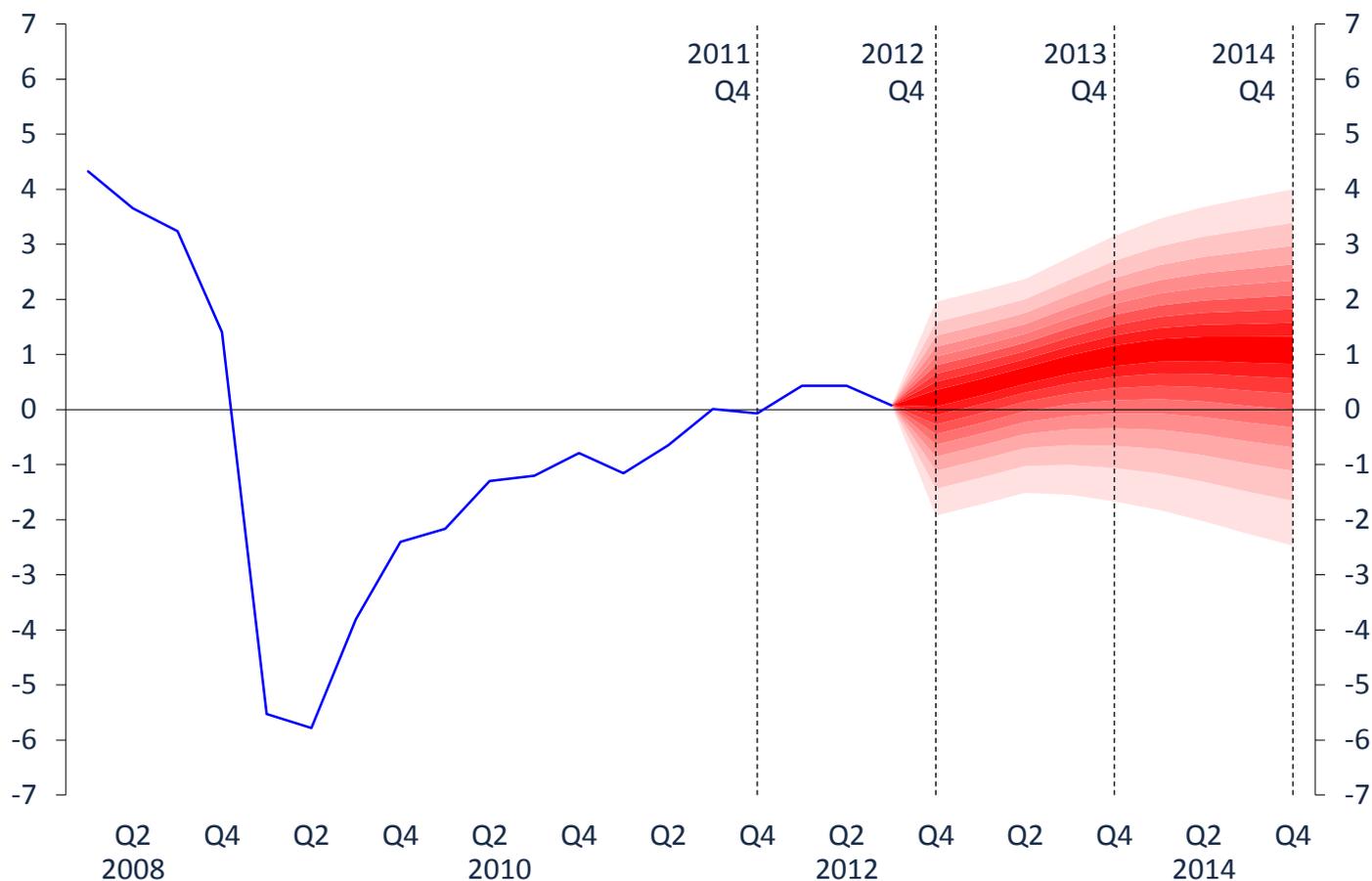
Fan Chart: GDP Growth  
Annual %; s.a.



s.a./ Seasonally adjusted.  
Source: INEGI and Banco de México.

The indicators of slackness are expected to continue suggesting the absence of aggregate-demand related pressures on prices, although with smaller margins in the future.

Fan Chart: Output Gap <sup>1/</sup>  
%



<sup>1/</sup> Calculated with seasonally adjusted data.  
Source: Banco de México.

# Balance of Risks for the Economic Activity

**Main risks for economic growth are still downwards**

Lower U.S. growth rate

Events in the Euro zone affecting international financial markets

Further slowdown of emerging economies

Policy normalization by central banks in advanced economies earlier than anticipated

**Insofar as the process of structural reforms continues, some of these risks could be counteracted.**

# Inflation Forecasts

## Elements additional to the monetary policy stance which sustain the inflation forecast

Global environment of weak growth

Absence of considerable demand pressures

Intensified competition in some sectors

Fading of the effect that some food price shocks had on inflation

# Inflation Forecasts

**Headline inflation for 2013 and 2014 lower than that registered in 2012**

**Headline**

**At levels close to 3% target**

**Core**

**Very close –even below– 3% target**

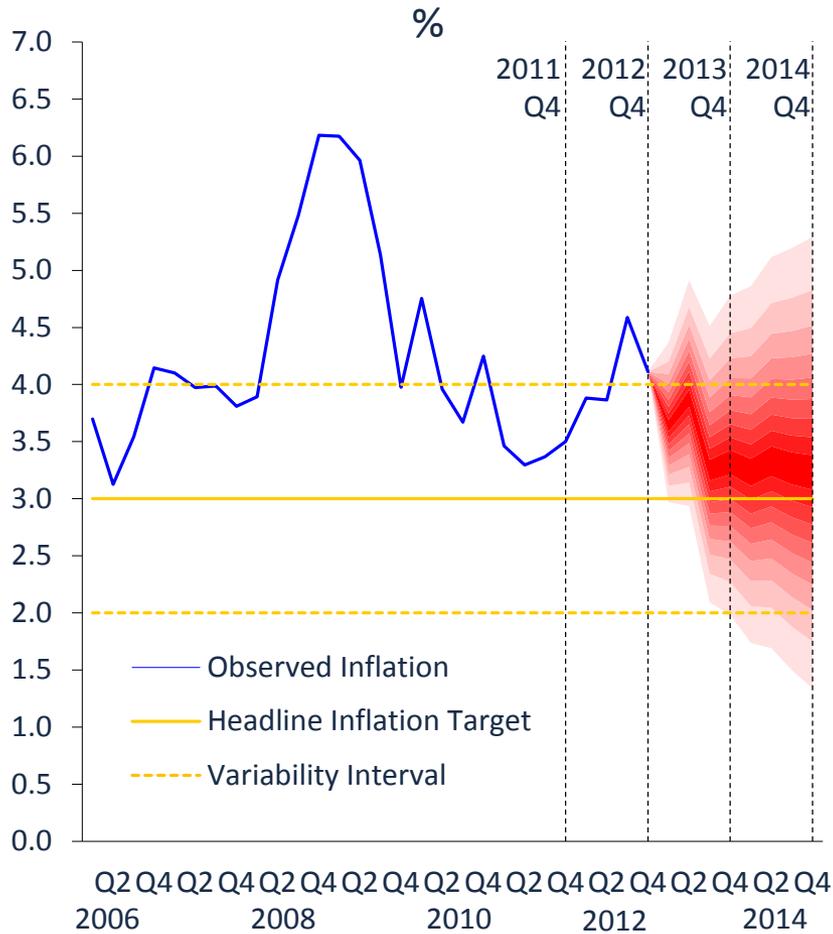
Given the evolution in 2012, a temporary increase at the end of Q1 2013 and the beginning of Q2 is anticipated, and it is expected to revert in subsequent months

This increase is forecast not to affect the process of convergence to the 3% target

# Annual headline inflation forecast for the next 2 years lies at levels close to 3 percent.

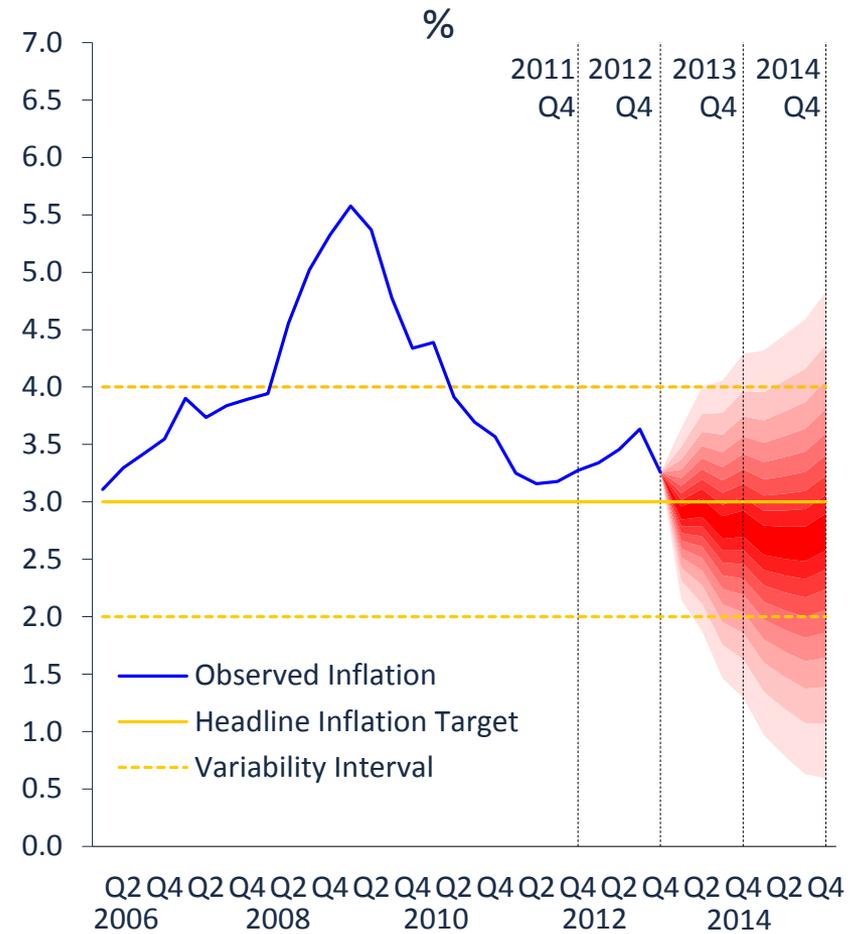
## Fan Charts

### Annual Headline Inflation <sup>1/</sup>



<sup>1/</sup> Quarterly average of annual headline inflation.  
Source: INEGI and Banco de México.

### Annual Core Inflation <sup>2/</sup>



<sup>2/</sup> Quarterly average of annual core inflation.  
Source: INEGI and Banco de México.

# Balance of Risks for Inflation

## Upward

Increases in public prices higher than expected (public transport and license plate)

Limited, only high-value vehicles

Unfavorable climatic or sanitary conditions

Transitory effect

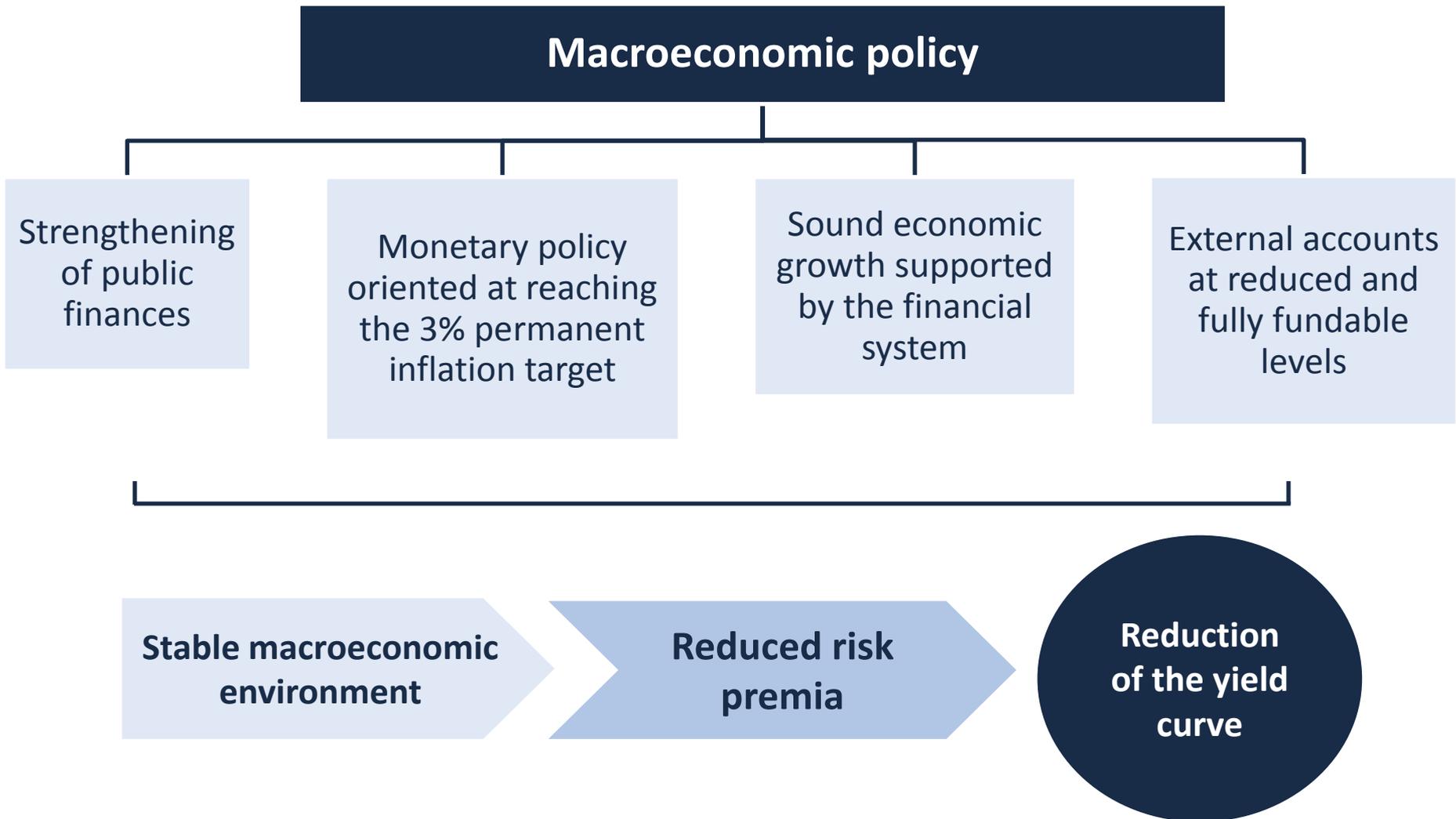
Impact of volatility in international financial markets on the exchange rate

Limited by the macroeconomic strength and the low pass-through of exchange rate to inflation

## Downward

More supply of services and lower prices, given higher competition in the telecommunications sector

All in all, the favorable performance of the economy is mainly due to the adequate macroeconomic policy stance.



## Monetary Policy Stance

- In January 2013 the Board of Governors announced that if the environment of lower growth and lower inflation is consolidated, a downward adjustment of the Overnight Interbank Interest Rate could be advisable.

→ If this environment is consolidated, and given the favorable performance of inflation expectations, a reduction in the reference rate could be in line with the convergence of inflation to its 3 percent permanent target.

- In any event, the Board of Governors will monitor the evolution of all inflation determinants, in order to reach the permanent 3 percent inflation target.

# Strengthening internal sources of growth is required.

## Continue with the reforms that

Increase productivity from a microeconomic point of view

Complement macroeconomic stability reached by Mexico

Allow a better resource allocation towards their most productive uses and the adoption of better technologies

## These reforms would allow

Greater economic growth, while the environment of low and stable inflation is strengthened

Greater resistance of the economy to different shocks, which could possibly affect it



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