



Regional Economic Report  
July – September 2015



BANCO DE MÉXICO

December 10, 2015

# Outline

- I. Regional Economic Report**
- II. Results July – September 2015**
  - A. Economic Activity**
  - B. Inflation**
  - C. Economic Outlook**
- III. Final Remarks**

# Regional Economic Report

- The Regional Economic Report is a quarterly publication on the recent trends in economic activity, inflation and business agents' expectations in the Mexican regions.<sup>1</sup>
- This information is taken into account by Banco de México's Board of Governors when evaluating the economic situation and the forecast for the Mexican economy.
- The economic performance of the regions in 3Q 2015 and the prospects for regional economic activity and inflation over the following 12 months are analyzed herein.

1/ For the purposes of this Report, the states of Mexico are grouped into the following regions. Northern: Baja California, Chihuahua, Coahuila, Nuevo León, Sonora and Tamaulipas. North-Central: Aguascalientes, Baja California Sur, Colima, Durango, Jalisco, Michoacán, Nayarit, San Luis Potosí, Sinaloa and Zacatecas. Central: Distrito Federal, Estado de México, Guanajuato, Hidalgo, Morelos, Puebla, Querétaro and Tlaxcala. Southern: Campeche, Chiapas, Guerrero, Oaxaca, Quintana Roo, Tabasco, Veracruz and Yucatán.

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# Economic Activity

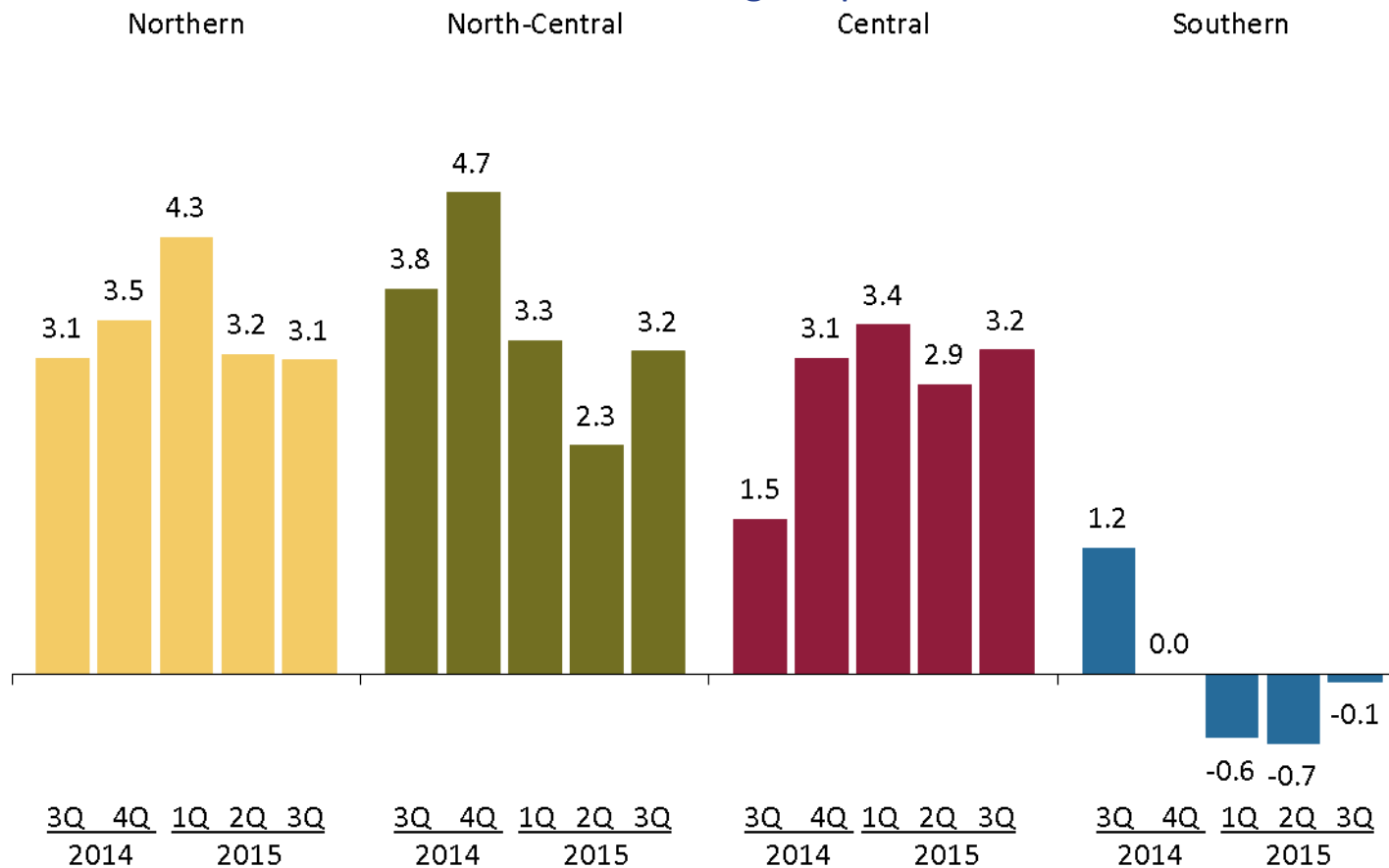
- Economic activity generally presented a greater dynamism in 3Q 2015 as compared to the first half of the year.
  - ✓ This derived from a favorable performance of the agricultural sector, commerce and the services sector.
  - ✓ Likewise, industrial activity, at the margin, rebounded in the reference quarter.
- In general, tourism kept showing significant dynamism in 3Q 2015.
- The number of IMSS-registered jobs continued registering high growth rates in most regions of Mexico.

# Economic Activity

- In the Northern and North-Central regions, economic activity expanded, as a result of the performance of the manufacturing and construction industries, as well as the sectors of commerce and tourism.
- In the Central region, economic activity was driven by a greater dynamism of commerce and the agricultural sector.
  - ✓ However, the expansion of the manufacturing and construction industries moderated in this region.
- Finally, dynamism of the economic activity in the Southern region remained low, mainly due to the performance of the construction industry and oil mining.

In 3Q 2015, economic activity generally registered greater growth as compared to the first two quarters of the year.

## Quarterly Indicator of Regional Economic Activity <sup>1/</sup> Annual change in percent



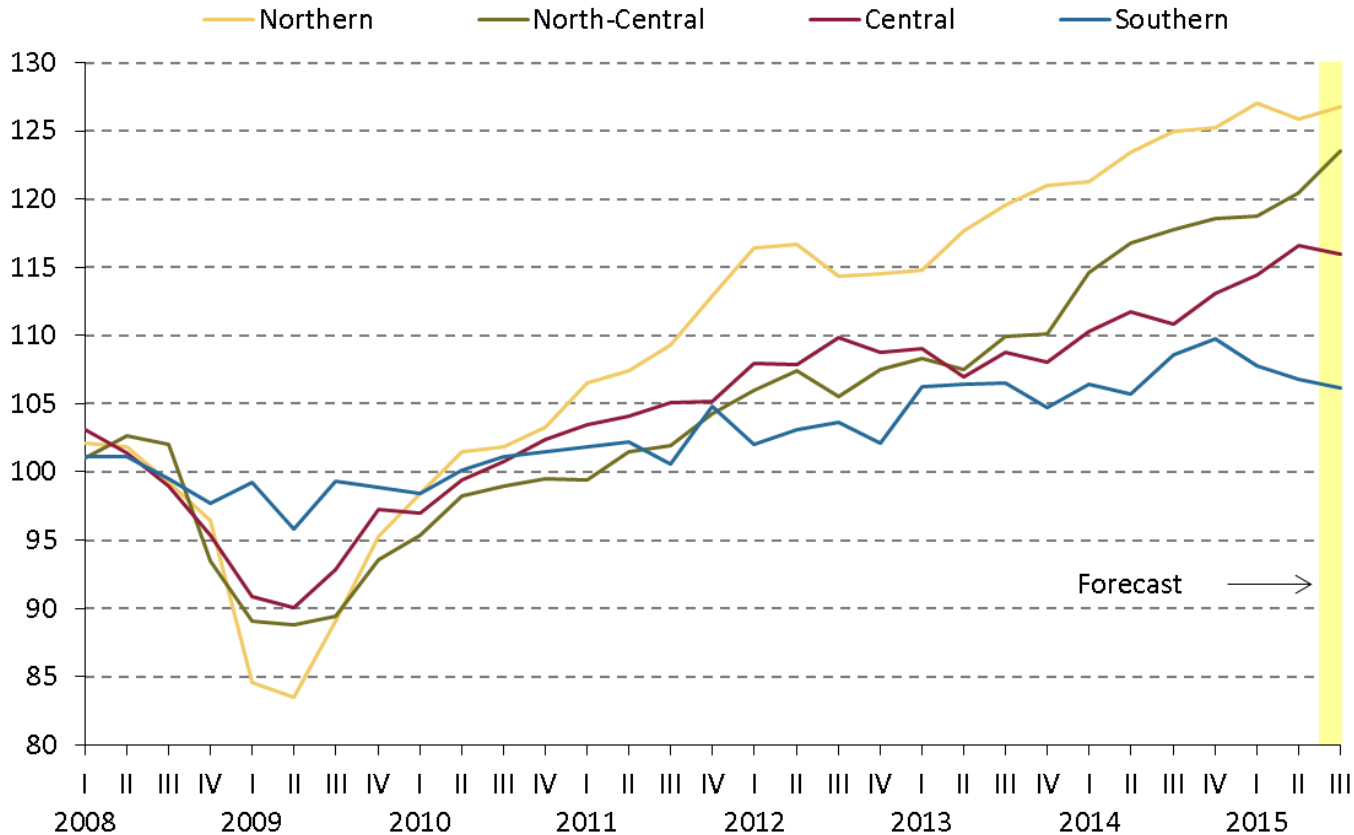
<sup>1/</sup> This indicator's values in 3Q 2015 are preliminary.

Source: Estimated by Banco de México with seasonally adjusted data from INEGI.

It is estimated that manufacturing activity continued expanding in 3Q 2015, although the growth rate was heterogeneous across regions. In particular, in the Northern and North-Central regions this activity presented greater dynamism, as compared to the Central and Southern regions.

### Regional Manufacturing Indicator <sup>1/</sup>

Index 2008=100, quarterly average



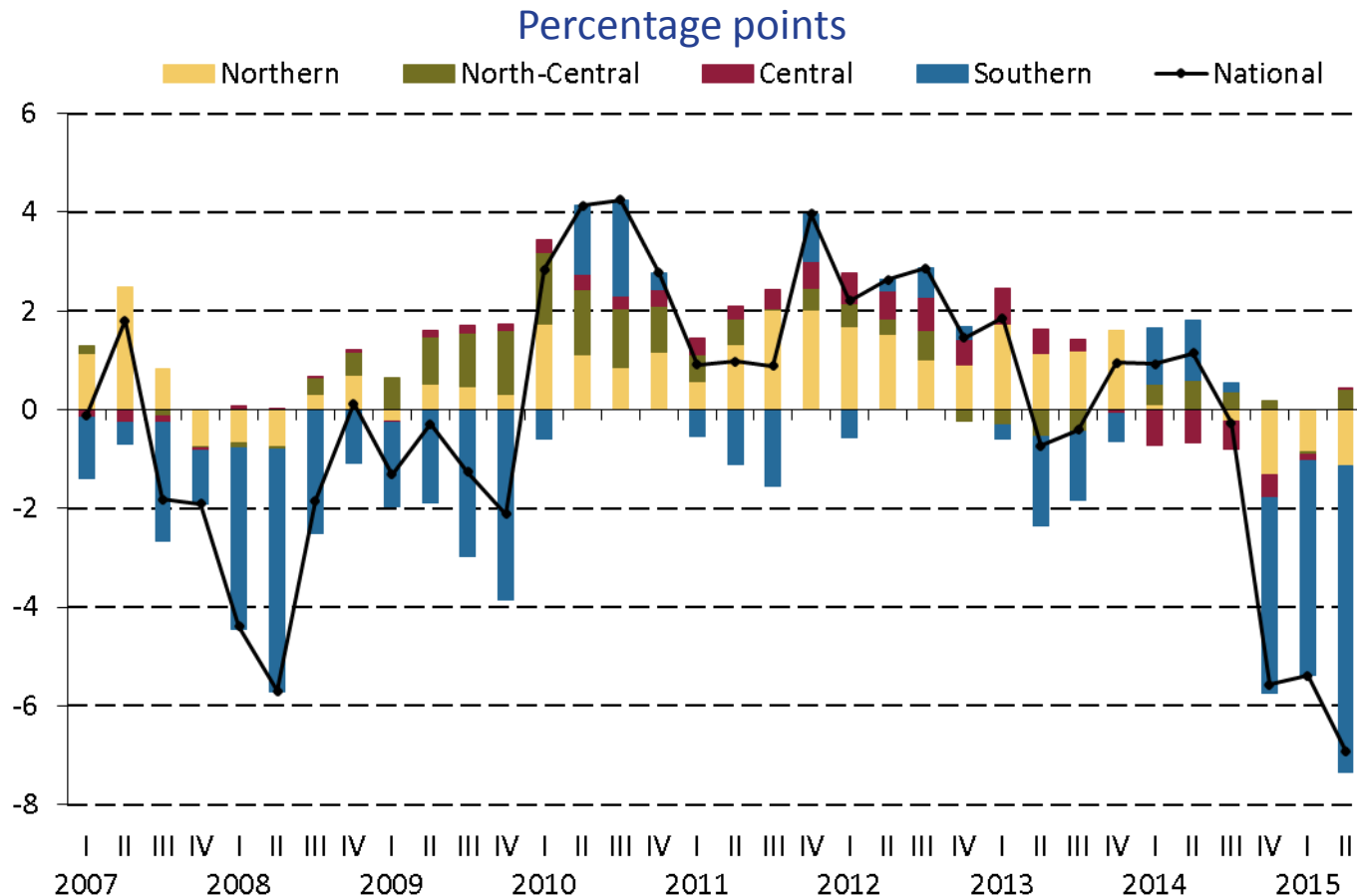
1/ This indicator's values in 3Q 2015 are preliminary.

Source: Estimated by Banco de México with seasonally adjusted data from INEGI.



In 3Q 2015, the mining activity continued performing unfavorably in most regions. Still, its pace of contraction moderated with respect to the previous quarter, in particular in the Southern region.

## Contribution by Region to the Annual Growth of the Mining Industry <sup>1/</sup>



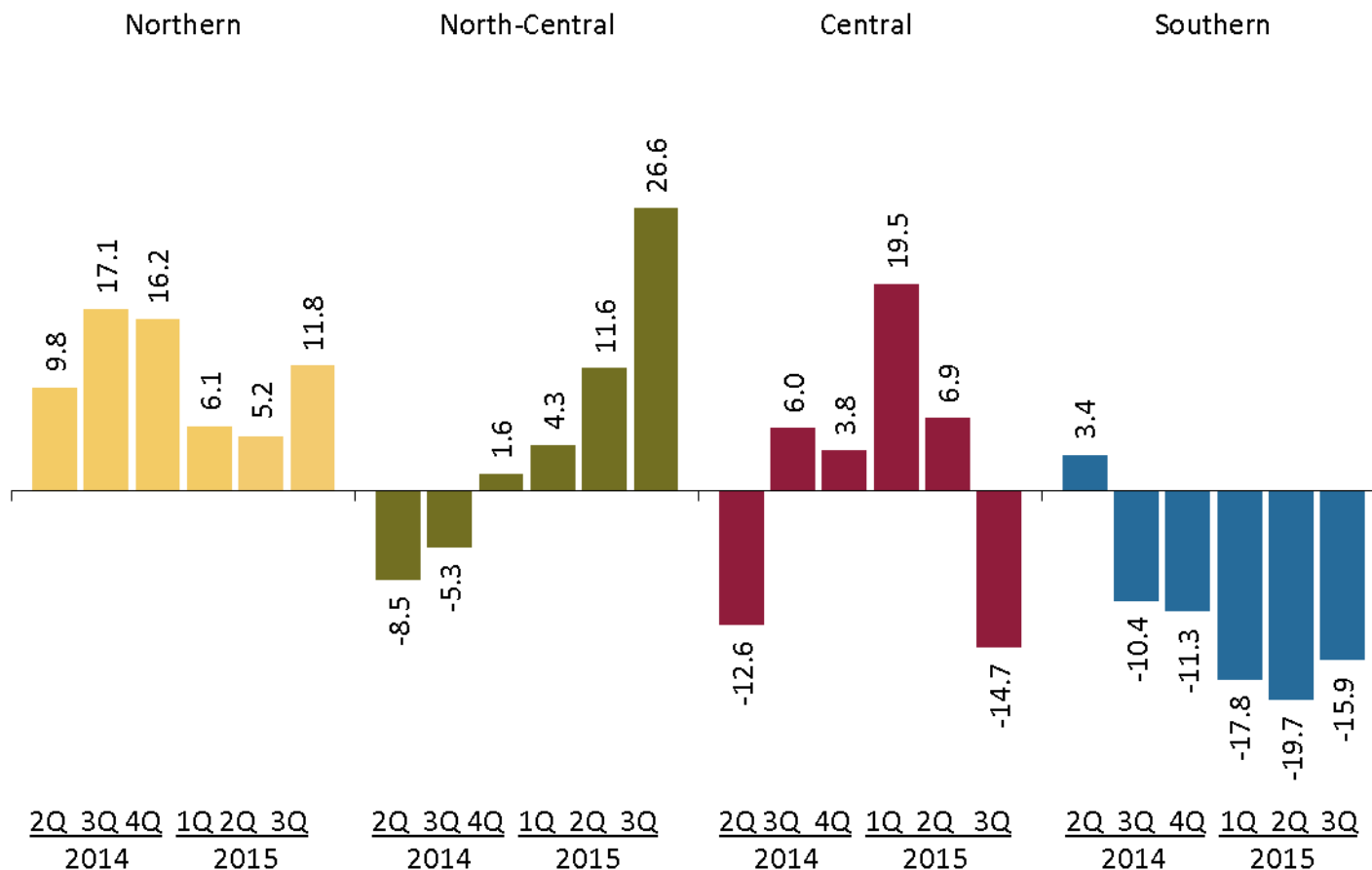
<sup>1/</sup> This indicator's values in 3Q 2015 are preliminary.

Source: Estimated by Banco de México with seasonally adjusted data from INEGI.

Activity of the construction sector registered a mixed performance at the regional level in 3Q 2015. In the Northern and North-Central region it expanded at a greater rate with respect to 2Q 2015. In contrast, it contracted in the Central and Southern regions, although this occurred at a more moderate rate in the latter.

## Real Value of Production in the Construction Industry by Region

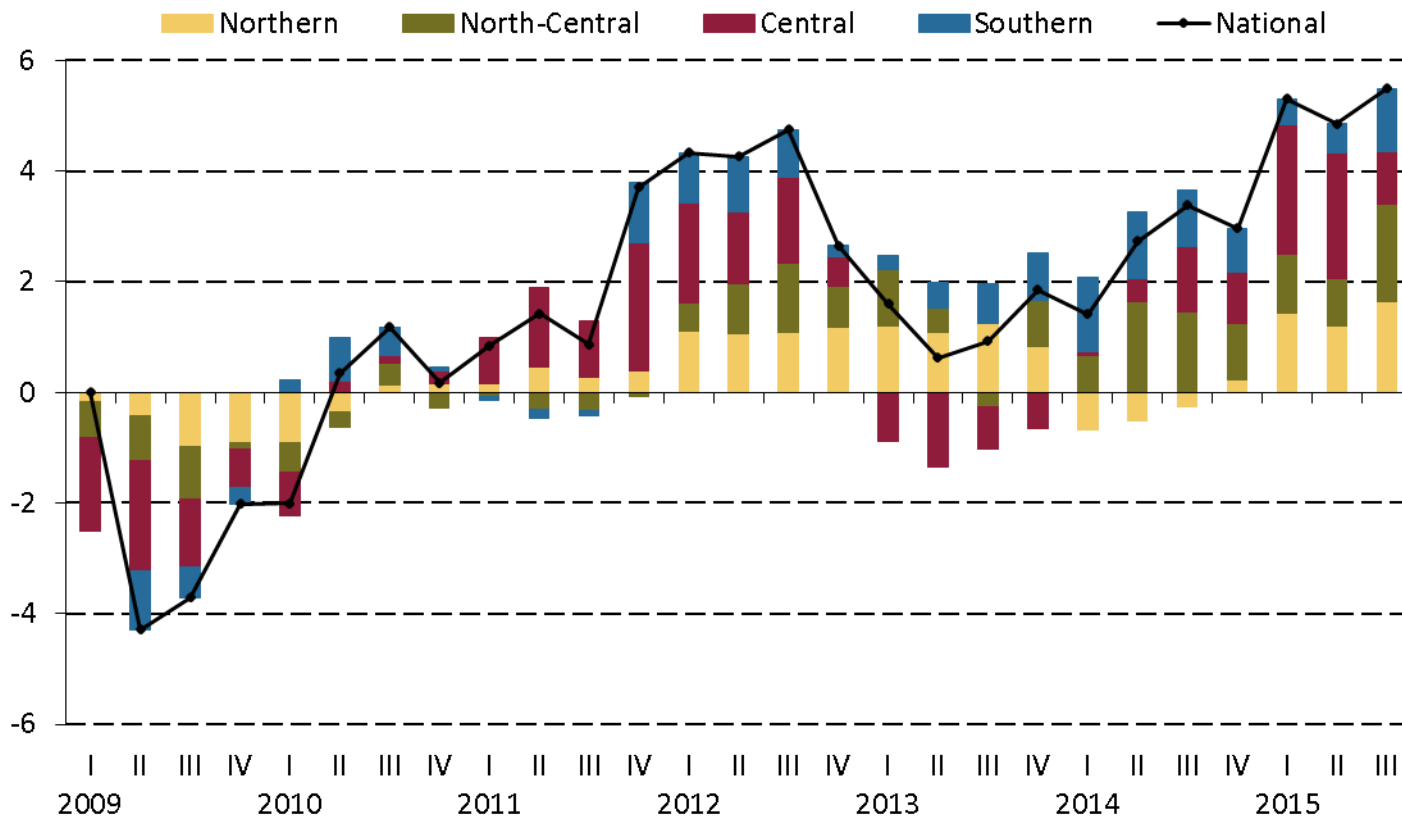
Annual change in percent



Source: Estimated and seasonally adjusted by Banco de México with data from INEGI.

The growing trend in retail trade persisted across all regions of Mexico in 3Q 2015.

## Contribution by Region to the Annual Growth of Retail Trade Percentage points



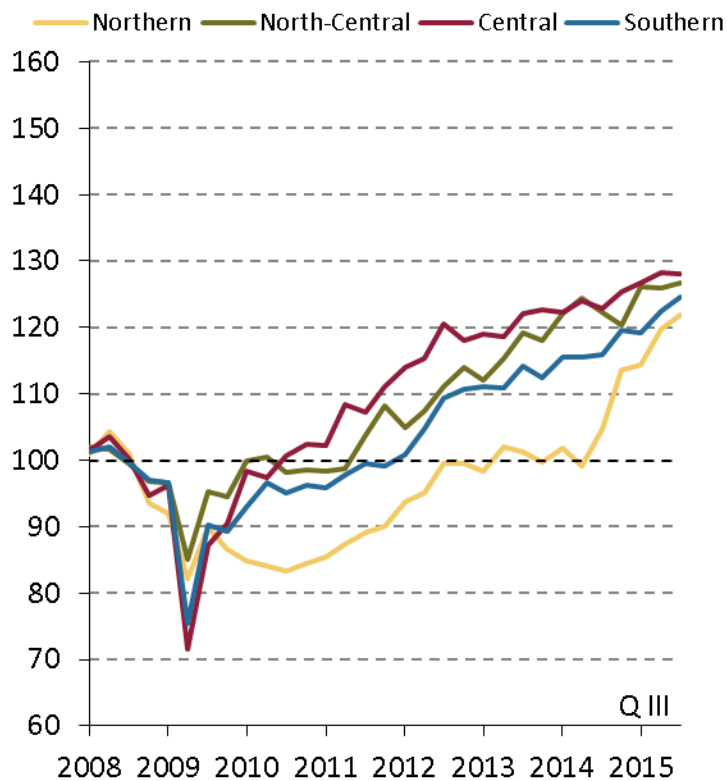
Source: Estimated by Banco de México with seasonally adjusted data from INEGI.

In general, tourism continued showing a significant dynamism in 3Q 2015.

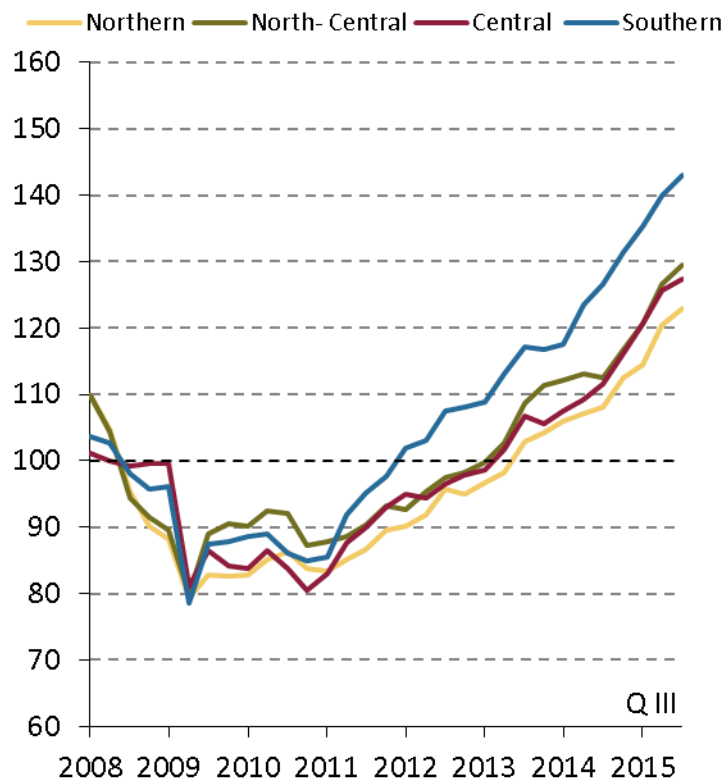
## Regional Indicators of Activity in Tourism

Index 2008=100, quarterly average

### Hotel Occupancy



### Inflow of Passengers to Airports

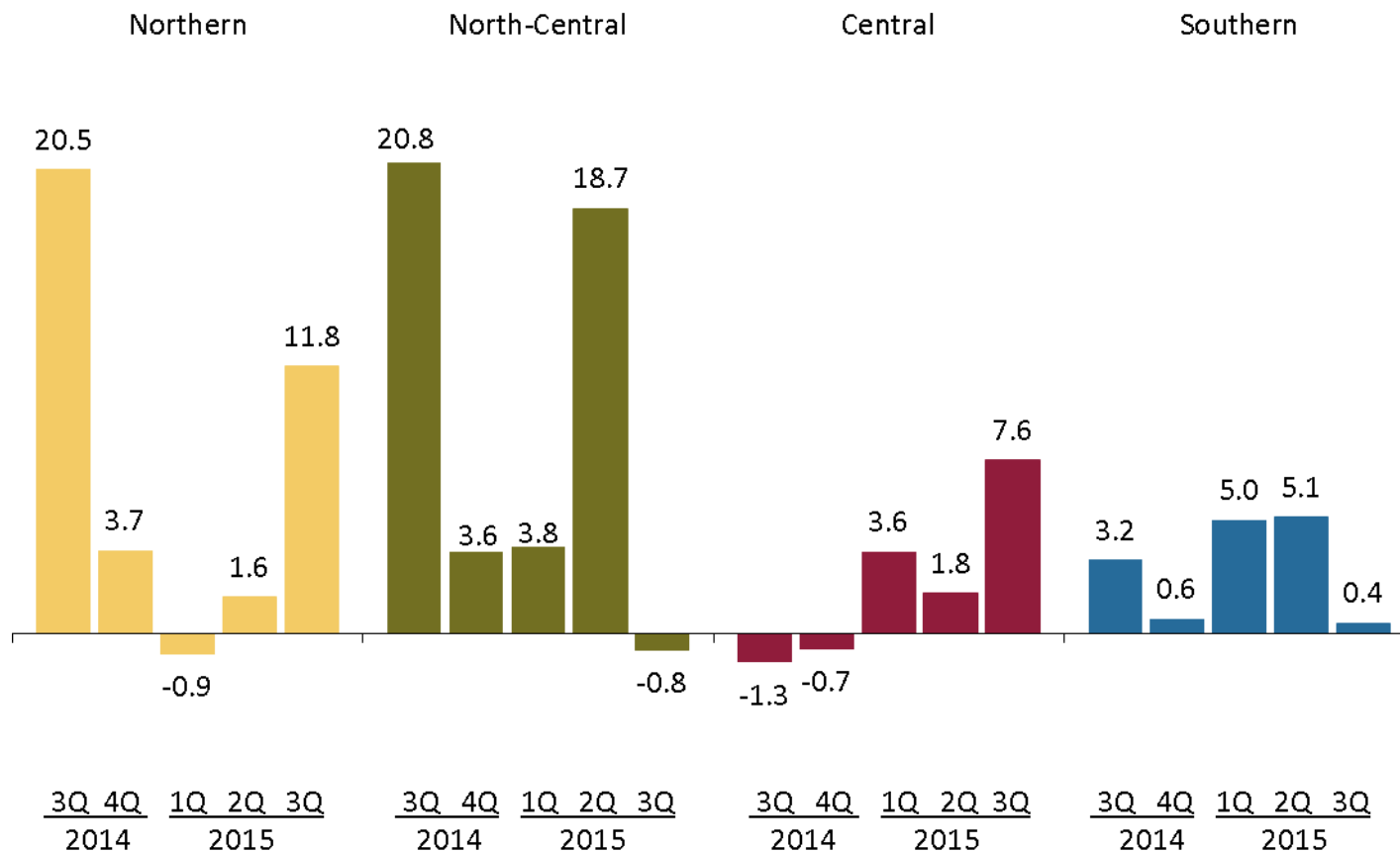


Source: Estimated and seasonally adjusted by Banco de México with data from the Mexican Secretariat of Tourism and from Airports and Auxiliary Services (ASA).

Agricultural activity in the Northern, Central and Southern regions kept expanding in 3Q 2015, with respect to the same period of 2014. In contrast, in the North-Central region agricultural activity contracted slightly at an annual rate.

## Index of Regional Agricultural Production

### Annual change in percent



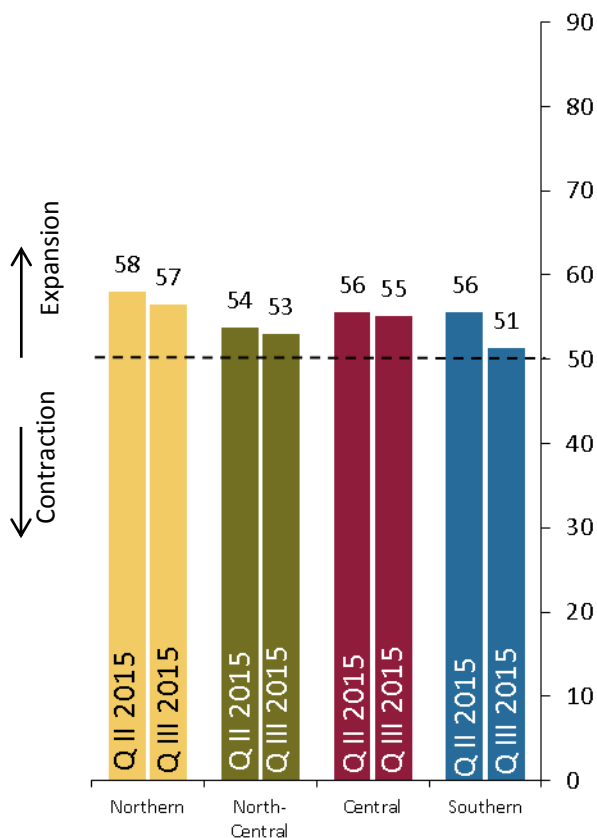
Source: Estimated by Banco de México based on data from SAGARPA.

Financing to firms kept expanding in all regions of Mexico, in particular that granted by commercial banks. However, this source of financing contracted in the Southern region during the reference quarter.

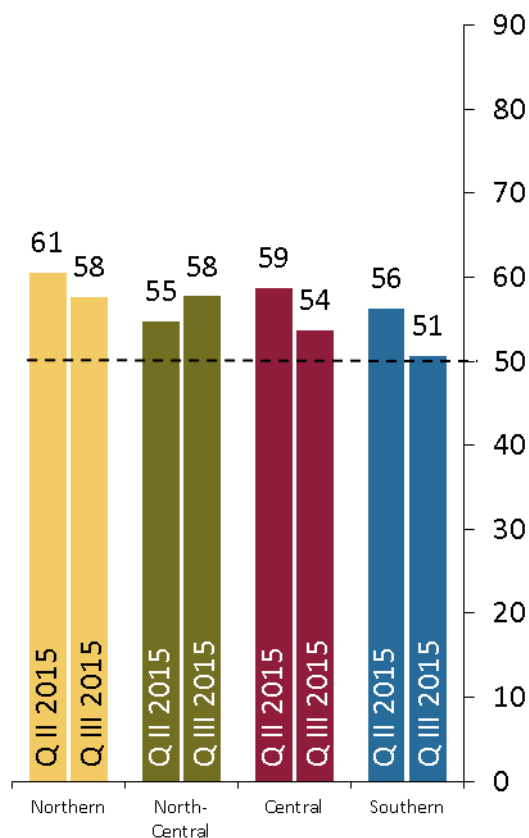
## Main Sources of Financing to Firms

### Diffusion indices

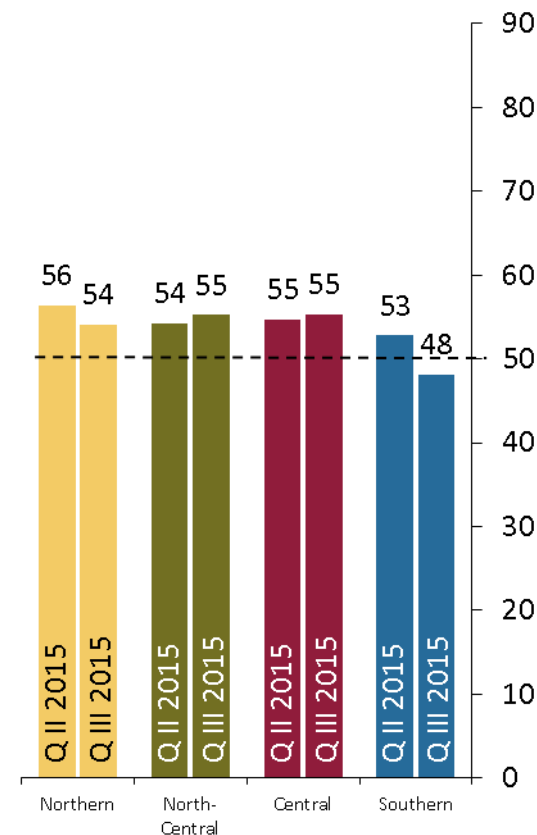
#### Own Resources



#### Suppliers



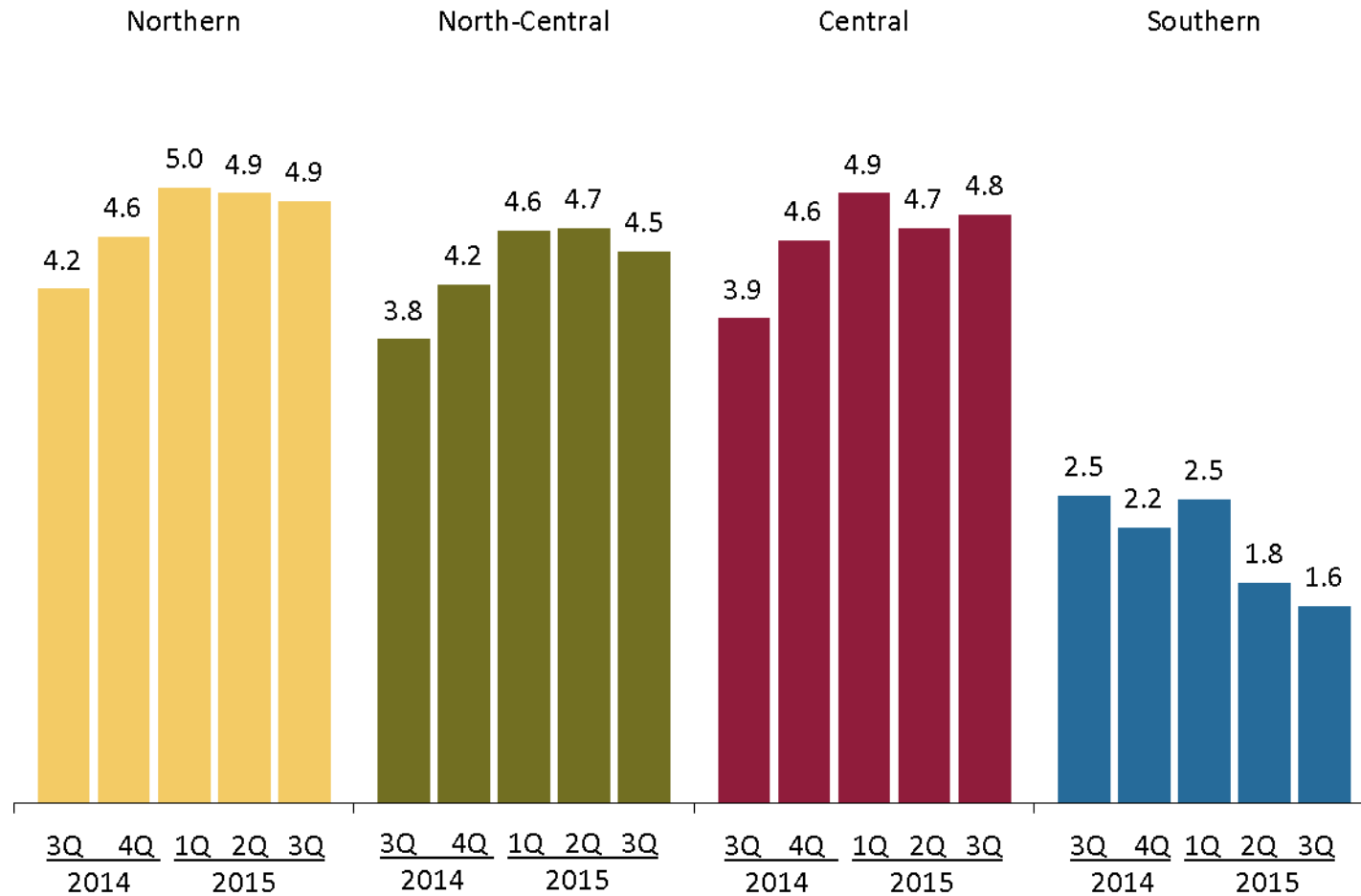
#### Commercial Banks



Source: Banco de México.

The number of IMSS-insured jobs kept presenting high growth rates in the Northern, North-Central and Central regions, although a relatively lower rate was registered in the Southern region.

## Number of IMSS-insured Workers Annual change in percent



Source: Estimated and seasonally adjusted by Banco de México based on seasonally adjusted data from IMSS.

# Outline

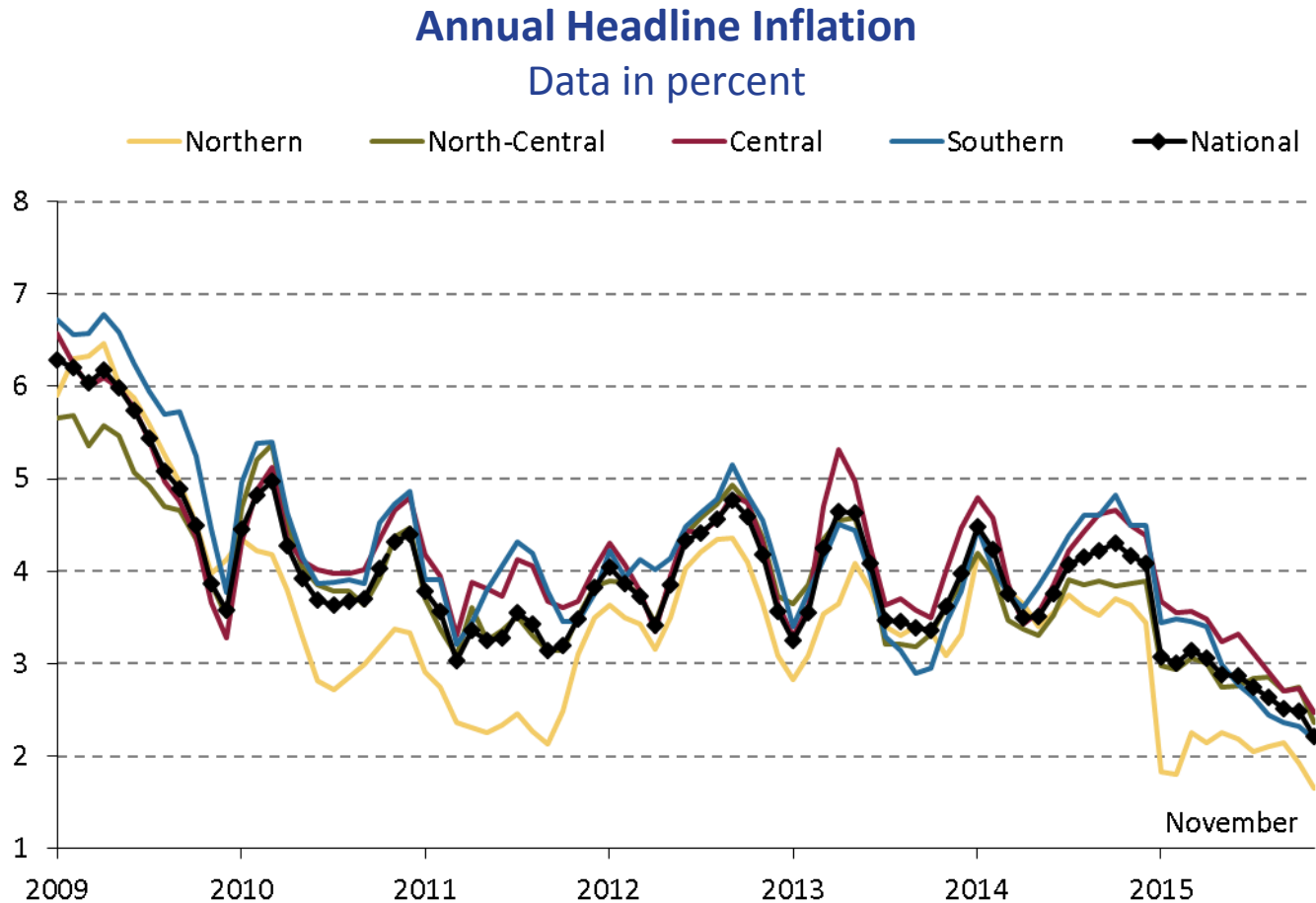
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# Inflation

- Annual headline inflation maintained its downward trend, since May lying at a national level below 3 percent and registering new historic lows in the period covered by this Report. This performance of inflation was mainly contributed by:
  - ✓ The monetary policy stance conducive to the 3 percent target;
  - ✓ Direct and indirect effects on inflation generated by lower prices of generalized-use inputs, such as energy prices, commodity prices and telecommunication services prices.
- In this way, annual headline inflation located under 3 percent in all regional economies of Mexico.

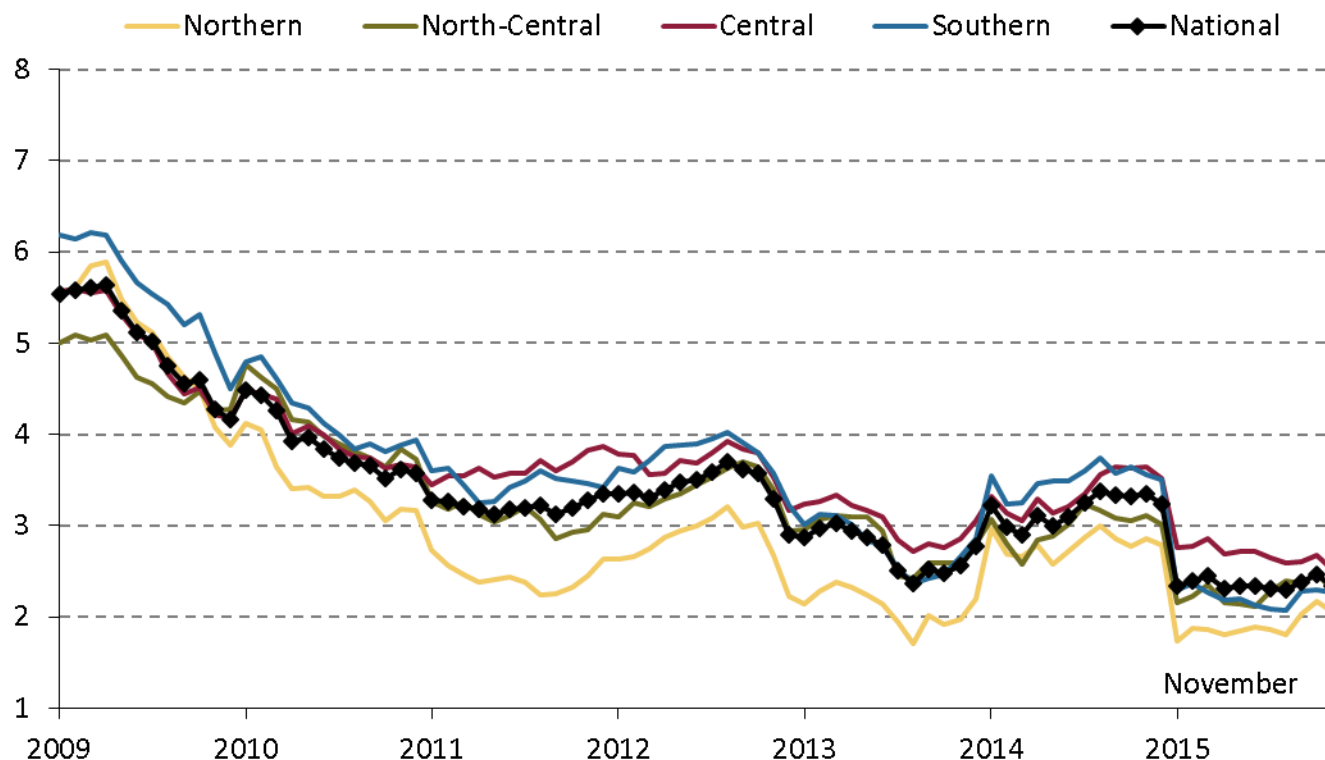
The performance of annual headline inflation was reflected in inflation levels below 3 percent in all regions of Mexico.



Source: Estimated by Banco de México with data from INEGI and own data.

Annual core inflation persists at low levels, both at the national level and across regions of Mexico. However, after its annual change rates increased to a certain extent, as a reflection of the change in merchandise relative prices as compared to services' prices, derived from the exchange rate depreciation, recent reductions in telecommunication services' tariffs produced a downward impact on core inflation in all regions.

## Annual Core Inflation Data in percent

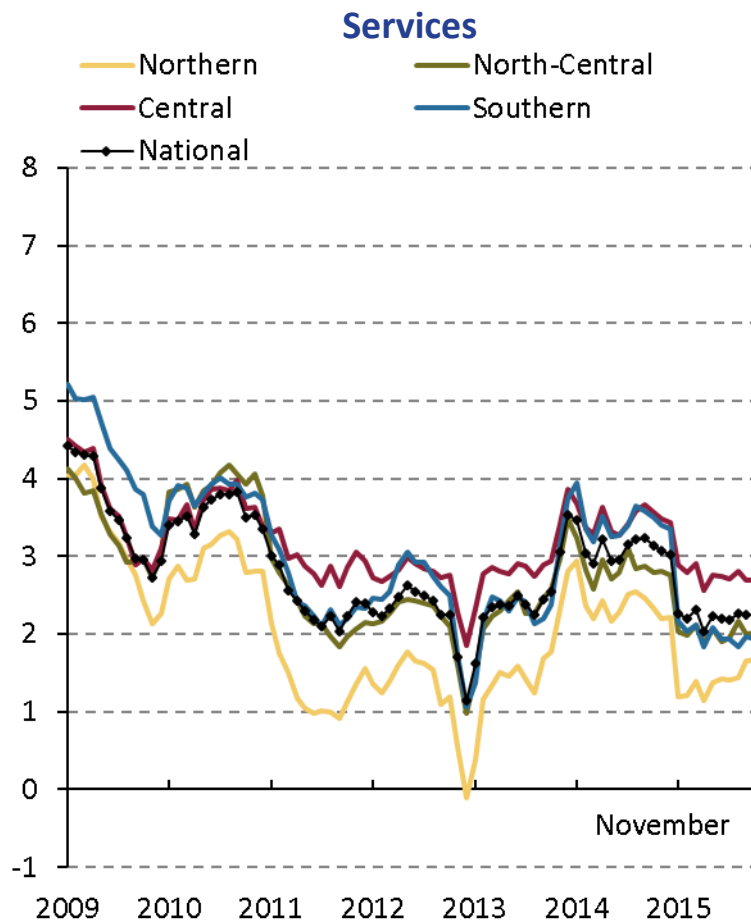
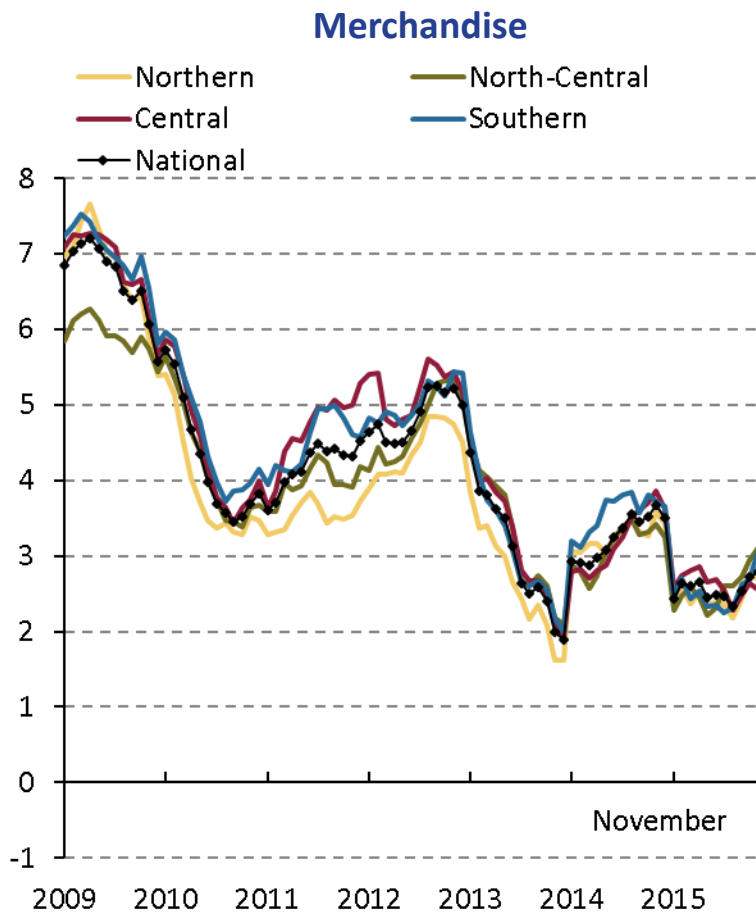


Source: Estimated by Banco de México with data from INEGI and own data.

Indeed, although annual growth rates of merchandise prices persist at low levels, the abovementioned adjustment in relative prices implied marginal increments in the referred rates across all regions of Mexico. In turn, the services' price subindex maintained low and stable annual growth rates.

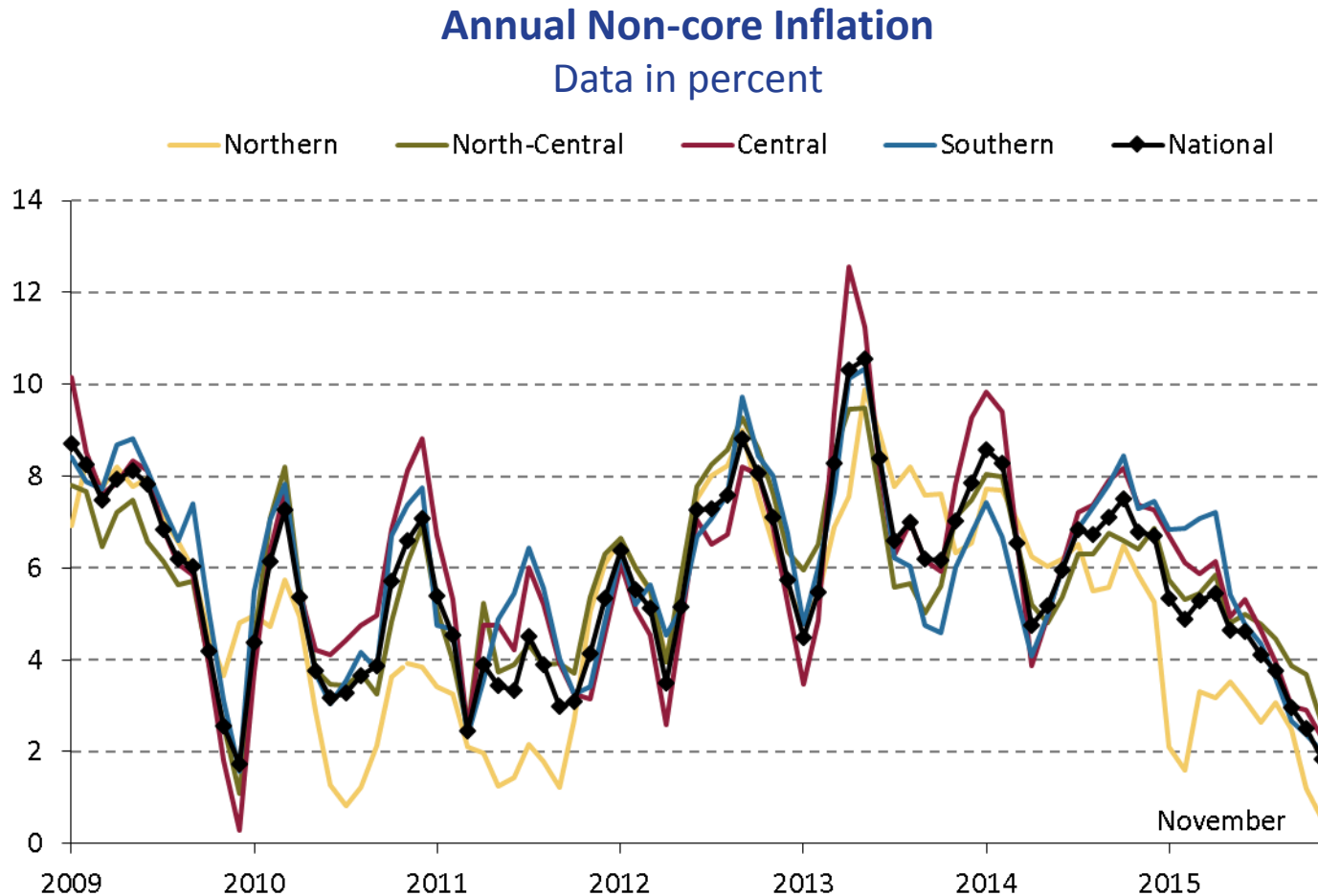
## Components of Annual Core Inflation

Data in percent



Source: Estimated by Banco de México based on data from INEGI and own data.

Annual non-core inflation slowed down in the reference quarter with respect to the previous one in all regional economies.



Source: Estimated by Banco de México based on data from INEGI and own data.

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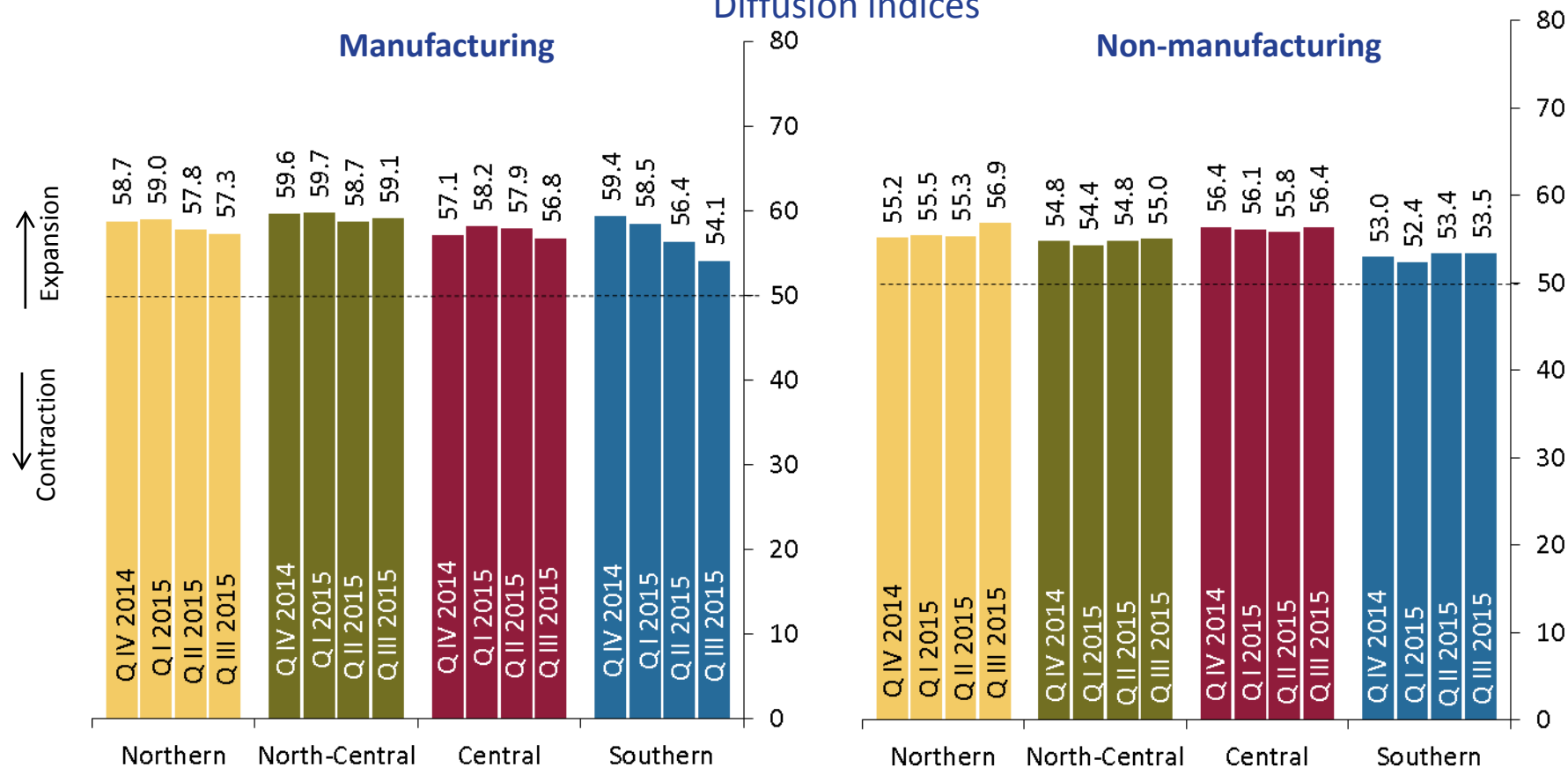
# Economic Outlook

- Most business contacts interviewed by Banco de México expect an expansion of demand for own goods and services across all regions of Mexico over the next twelve months, although this perception has weakened in the Northern and Central regions with respect to 2Q 2015.
- The interviewed business agents indicated that their expectations are based on the following factors:
  - ✓ At the domestic level: i) an ongoing recovery of private consumption; ii) greater inflow of private investment (mainly in the energy and manufacturing sectors); iii) climate conditions and market conditions prevailing in the agricultural sector; iv) a greater dynamism of some services in the tourism sector; and v) more favorable conditions for financing to firms.
  - ✓ At the international level: i) greater growth of the U.S. economy and its impact on some of the export sectors, such as the automobile and the food and agriculture sector.

The indices of manufacturing and non-manufacturing orders indicate higher levels of activity in four regions of Mexico over the following months.

## Regional Index of Manufacturing and Non-manufacturing Orders: Activity Outlook over the Next 3 Months <sup>1/</sup>

Diffusion indices



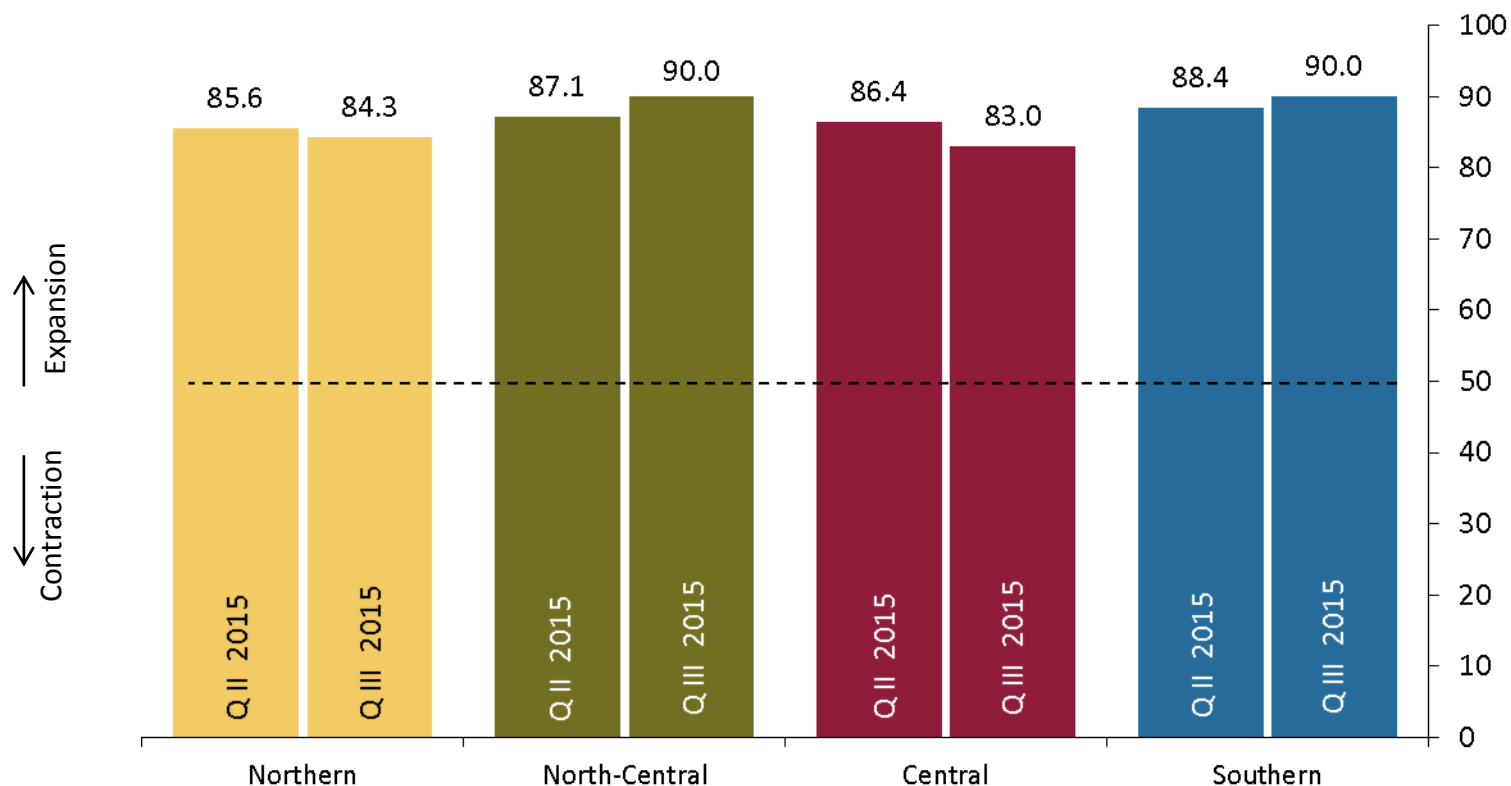
1/ Seasonally adjusted data.

Source: Banco de México.



Business agents interviewed by Banco de México anticipated an expansion of demand for own goods and services across all regions of Mexico over the next twelve months, although this estimation weakened in the Northern and Central regions with respect to 2Q 2015.

## Business Agents' Expectations: Demand over the Next 12 Months <sup>1/</sup> Diffusion indices

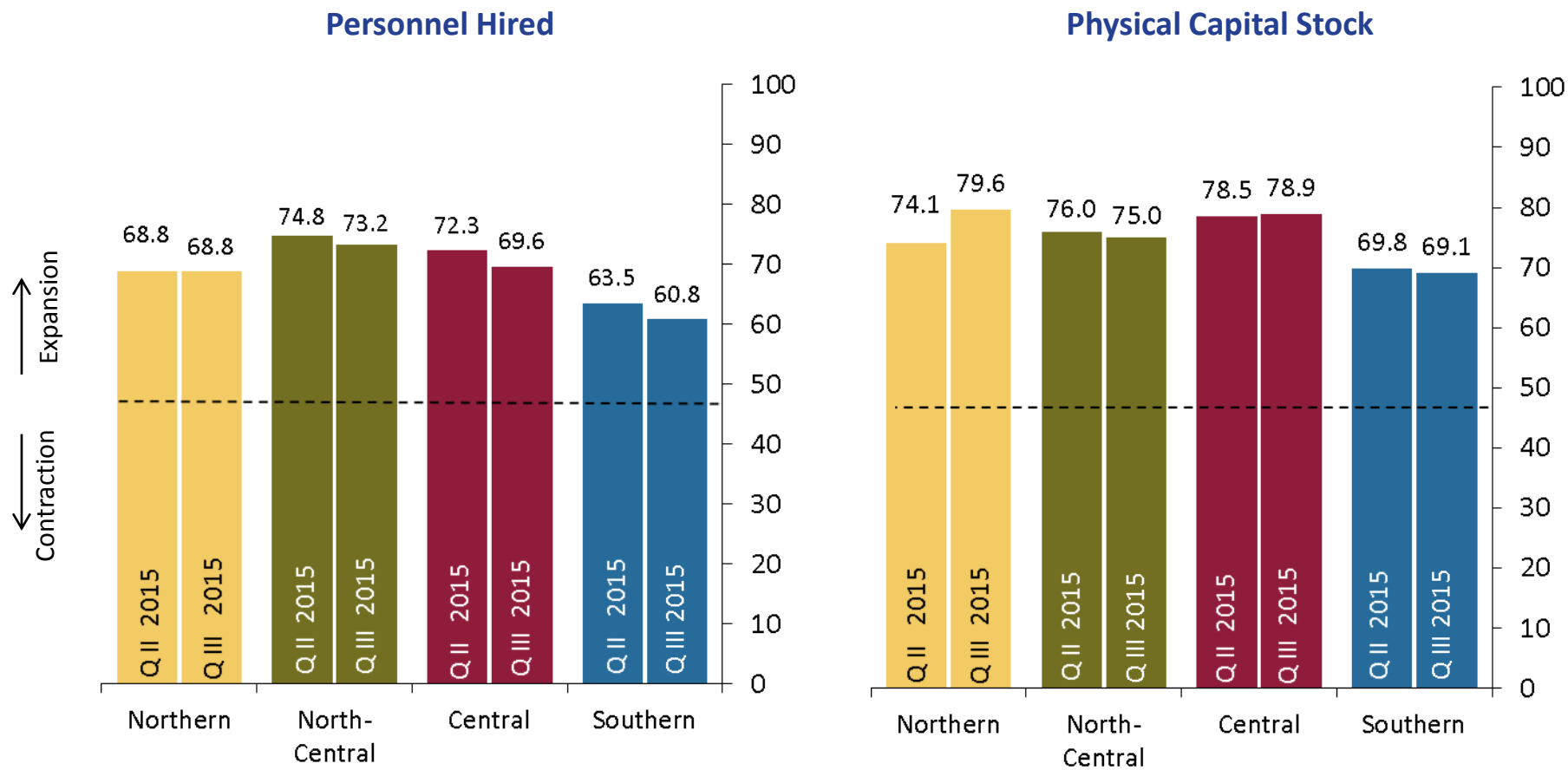


1/ Results obtained from responses to the question: "With respect to the situation in the current quarter, how do you expect demand for own goods and services to modify over the next 12 months?, from the interviews conducted by Banco de México.

In accordance with the estimated increase in demand for own goods and services, most business agents anticipate an expansion of hired personnel and of the physical capital stock in different regions.

## Business Agents' Expectations: Personnel Hired and Physical Capital Stock, Next 12 Months <sup>1/</sup>

Diffusion indices



<sup>1/</sup> Results obtained from responses to the questions: "With respect to the situation in the current quarter, how do you anticipate the personnel hired in your firm to change over the next 12 months?" and "How do you anticipate the physical capital stock in your firm to modify over the next 12 months?", from the interviews conducted by Banco de México.

# Economic Outlook

- Among upward risks to regional economic activity, interviewed business agents generally mentioned:
  - ✓ A possible acceleration of investment in such sectors as the energy sector, the automobile sector, the aerospace sector and tourism.
  - ✓ Greater than expected growth of the U.S. economy.
- Furthermore, in different regions business agents emphasized the following upward risks:
  - ✓ In the North-Central region, possible positive impacts on the competitiveness of the Mexican exports that could result from the exchange rate depreciation.
  - ✓ In the Central and Southern region, strengthening of domestic consumption as a factor of an additional impetus to regional economic growth.

# Economic Outlook

- As regards downward risks to regional economic activity, interviewed business contacts in four regions stressed the following:
  - ✓ Presence of new episodes of exchange rate volatility.
  - ✓ Lower dynamism of the U.S. industrial activity.
  - ✓ A possibility of a further deterioration in the perception of public safety.
- Additionally, in different regions business agents emphasized the following downward risks:
  - ✓ In the Northern region, a reduction in public expenditure for the following months, as well as less favorable conditions for public debt in some states.
  - ✓ In the Southern region, a possible presence of adverse climate events.

## **Box:**

### **Economic Complexity of the Mexican States**

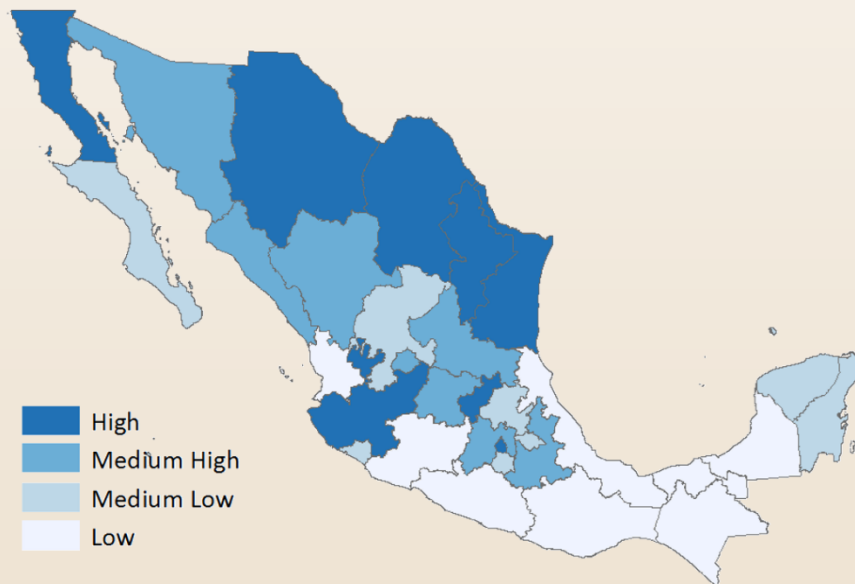
- The economic performance of the states in Mexico is heterogeneous. This seems to be related to the type of economic activities realized by the referred entities.
  - ✓ States that tend to specialize in the production of more sophisticated goods and services –which demand a greater level of productive knowledge– also tend to generate a greater added value and vice versa.
- This Box seeks to estimate the degree of productive knowledge in the Mexican states, measured by the Index of Economic Complexity, and to relate this index with their level of per capita GDP.

## Box: Economic Complexity of the Mexican States

- Economic complexity is calculated based on two characteristics of the productive structure of the state: *diversity* and *ubiquity*.
  - ✓ Diversity of the entities is the number of economic activities in which each state is specialized.
  - ✓ Ubiquity of economic activities is the number of states that are specialized in each activity.

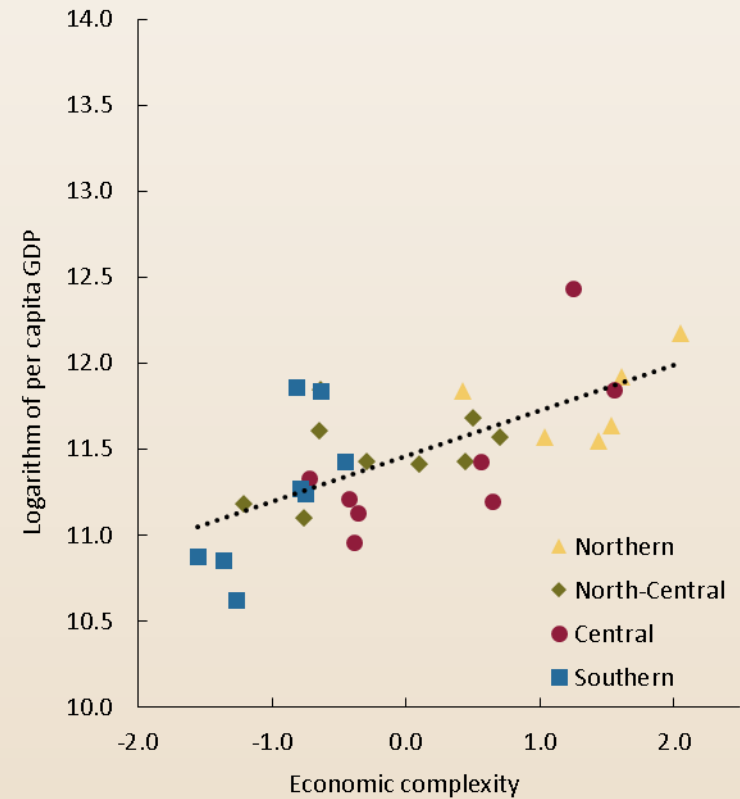
# Box: Economic Complexity of the Mexican States

## Economic Complexity in the Mexican States, 2013



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

## Economic Complexity and Per capita GDP in the Mexican States, 2013 <sup>1/</sup>



<sup>1/</sup> Per capita GDP of the entities is calculated excluding oil. The measure of complexity is presented as standardized.

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

## **Box:**

### **Economic Complexity of the Mexican States**

- Productive knowledge, calculated in this Box using the Index of Economic Complexity, is not distributed homogeneously across the states of the country.
  - ✓ While one group of entities is characterized by specializing in more complex activities, particularly in the Northern and Central regions, another group is specialized in the production of less sophisticated goods and services. This is reflected in an uneven economic performance observed across the states of the country.
- Thus, in the future it is important to carry out research that will delve into the factors determining the degree of economic complexity at the sub-national level.



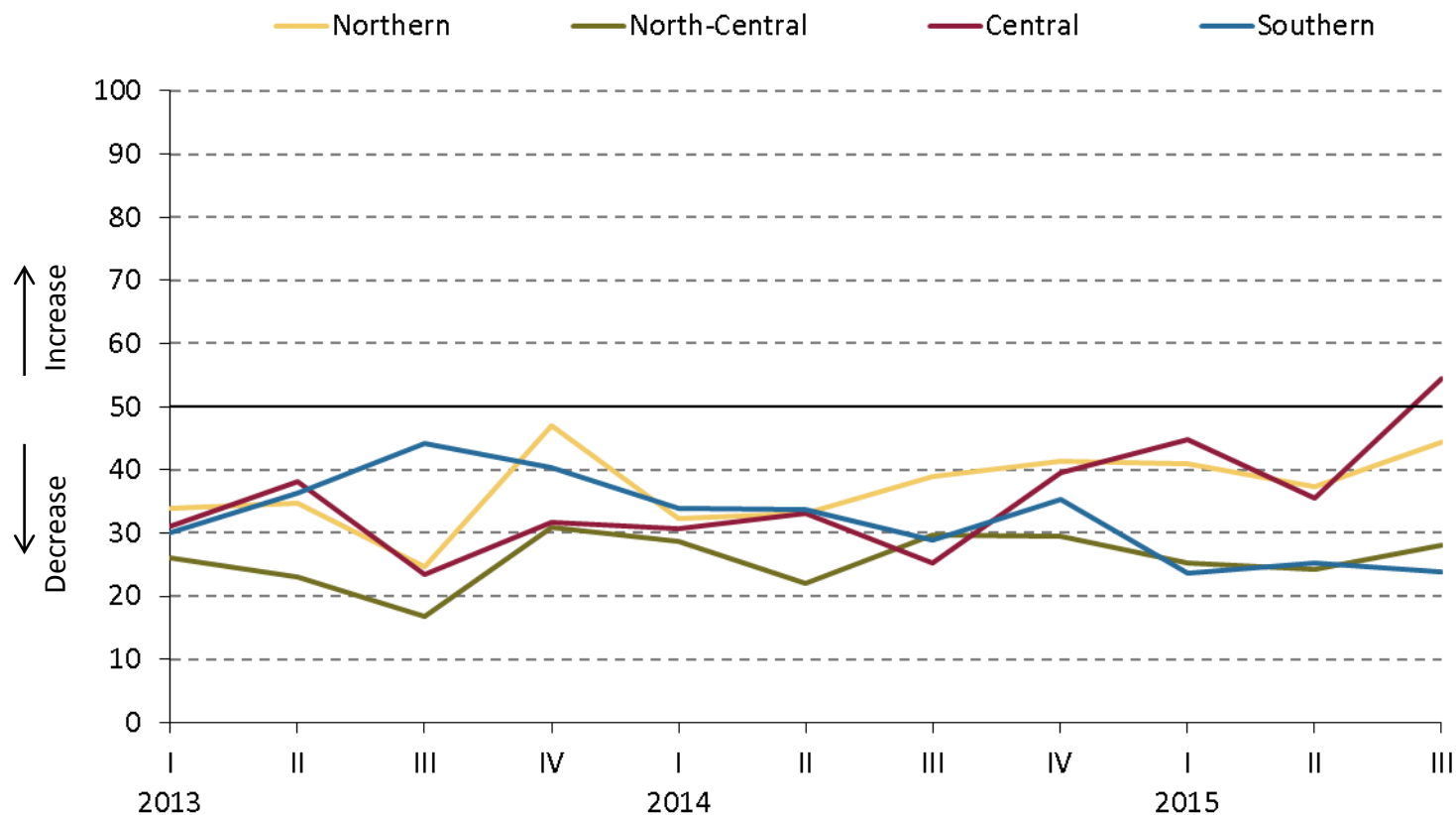
# Economic Outlook

- As to inflation expectations over the following twelve months, most business contacts in four regions anticipate that the sales prices of own goods and services will have lower annual changes as compared to last year.
- For the same time period, business agents anticipate lower annual change rates in their wage costs, with respect to 2014.
- With regard to the outlook for the future evolution of input prices, business contacts in all regions generally consider that the sign of a lower annual inflation of the referred prices kept weakening.

In general, interviewed business agents anticipate lower annual changes in the prices of own goods and services as compared to last year, over the next twelve months. Still, this sign weakened in most regions, and even indicated expansion in the Central region.

## Business Agents' Expectations: Annual Inflation Dynamics of Sales' Prices, Next 12 Months <sup>1/</sup>

### Diffusion index



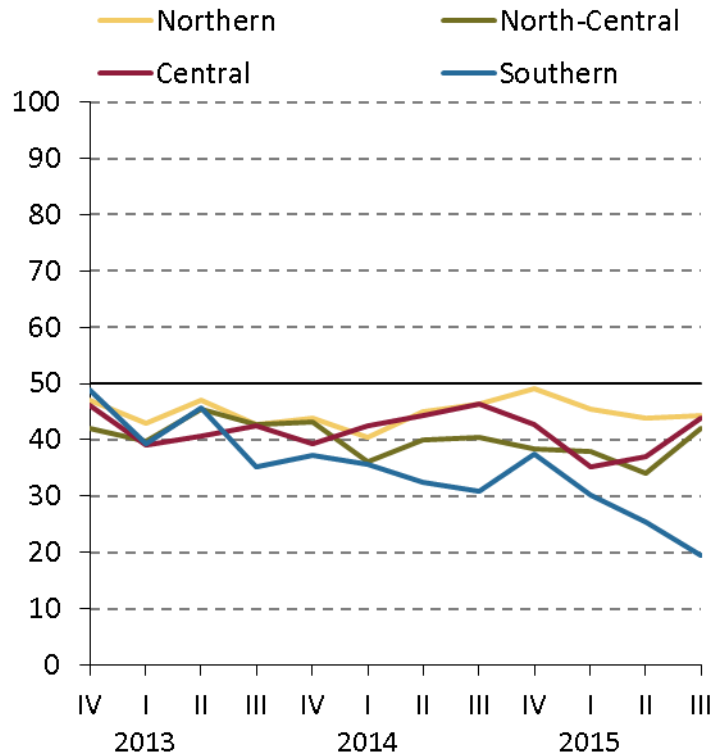
1/ Results obtained from responses to the questions: "With respect to the situation in 3Q 2015, do you anticipate any modification in the sales' prices of produced goods and services, over the next 12 months?", and "As compared to the same period of last year, of what magnitude do you expect this adjustment to be: greater, same or smaller?", from interviews conducted by Banco de México.

The interviewed business agents expect lower annual changes in their wage costs as compared to 2014. As regards the outlook for the future evolution of input prices, business contacts generally consider their increments to be lower, with the exception of the Northern region.

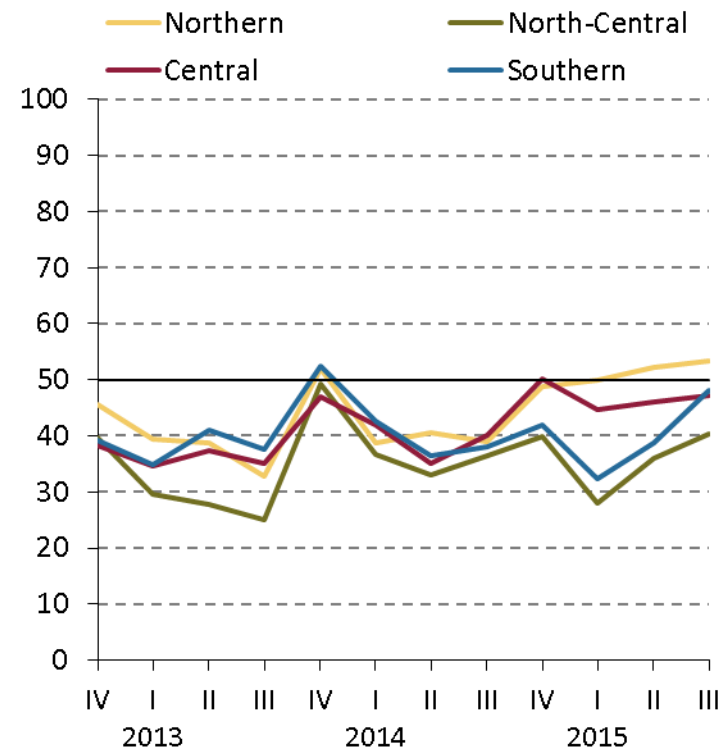
## Business Agents' Expectations: Annual Inflation Dynamics of Input Costs and Wage Costs, Next 12 Months <sup>1/</sup>

Diffusion indices

### Wage Costs



### Inputs



1/ Results obtained from responses to the questions: "With respect to the situation in 3Q 2015, do you anticipate any adjustment in input prices and wage costs over the next 12 months?" and "As compared to the same period of last year, of what magnitude will this adjustment be: greater, same or smaller?", from the interviews conducted by Banco de México.

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# Final Remarks

- ① In general, economic activity presented greater dynamism in 3Q 2015 with respect to the first half of the year. This dynamics was related to the favorable performance of the agricultural sector, commerce and the services sector, as well as the rebound in the industrial activity.
- ② In 3Q 2015, inflation registered historic lows. This resulted from the monetary policy stance, slack economic conditions and lower prices of some generalized-use inputs, in a context in which the impact of the exchange rate depreciation onto prices was limited.
- ③ The expectations of business agents interviewed for this Report point to an expansion of economic activity over the next twelve months. Likewise, the referred business contacts expect to increase the capital stock and personnel in their firms.
- ④ As regards inflation, business agents generally anticipate that over the next twelve months annual growth rates of their wage costs, input costs and sales' prices will be lower than those observed in the same period of last year.



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December 2015

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