

Regional Economic Report

October– December 2019

BANCO DE MÉXICO

March 11, 2020

Outline

I. Regional Economic Report

II. Results October – December 2019

A. Economic activity

B. Inflation

C. Economic outlook

(based on data collected between January 6 and January 30, 2020)

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 Mexico's regions.
- The information presented herein is taken into account by Banco de México's Governing Board when evaluating the economic situation and the forecast for the Mexican economy.
- The economic performance of the regions in Q4 2019 and business agents' prospects for regional economic activity and inflation over the following 12 months are analyzed herein.

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I. Regional Economic Report

II. **Results October – December 2019**

   A. **Economic activity**

   B. Inflation

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      (based on data collected between January 6 and January 30, 2020)

III. Final remarks

Regional Economic Activity

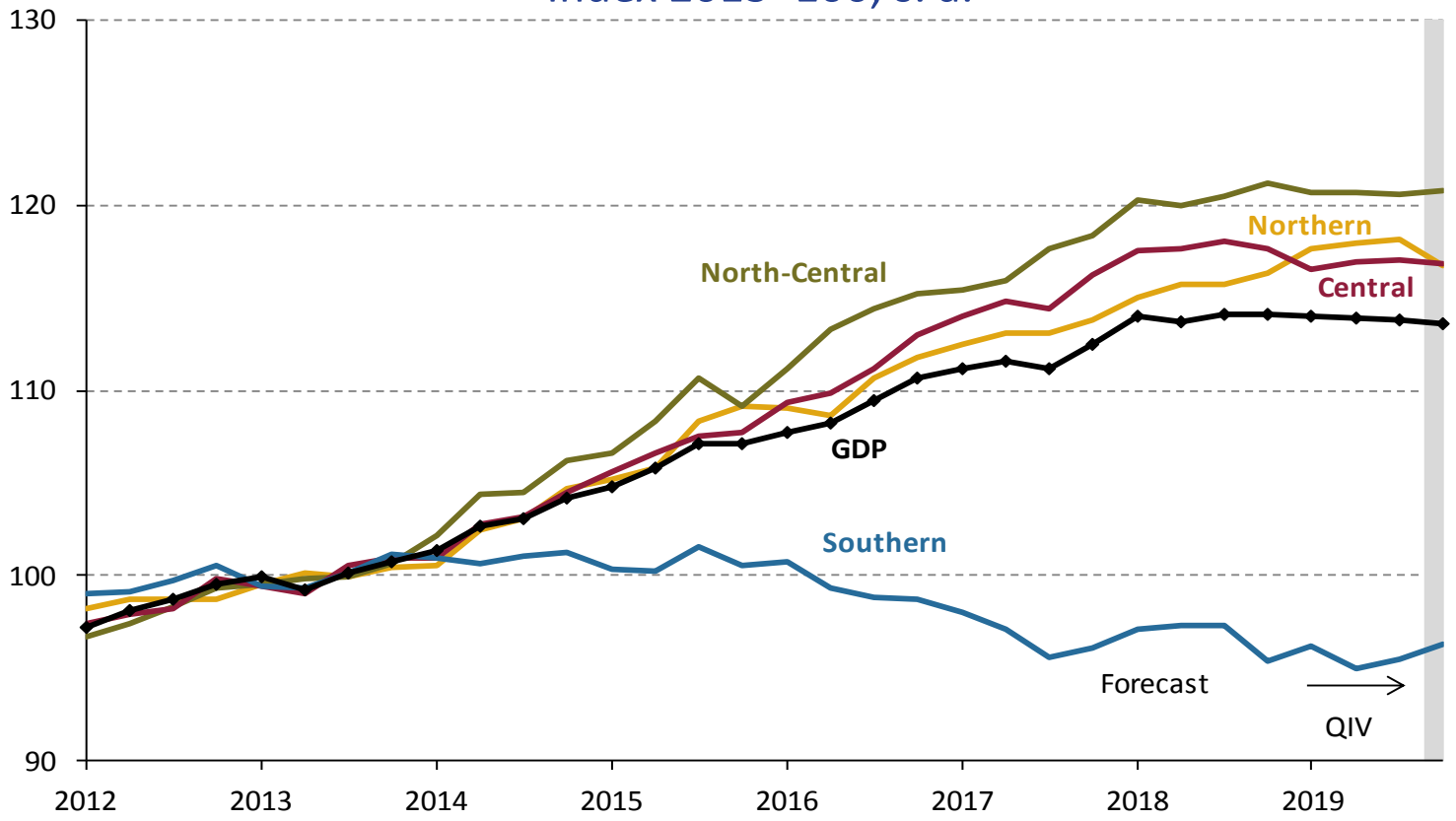
- According to incoming information, the moderate downward trend that Mexico has been on for several quarters persisted during Q4 2019. Thus, for 2019 as a whole the economy contracted slightly.

- The performance of Mexican economic activity during the reported quarter reflected the weakness of the Northern and Central regions. In contrast, the Southern region is estimated to show a second consecutive expansion, albeit from low levels.

In the Northern region, economic activity is estimated to have contracted notoriously. The stagnation that the central regions have been exhibiting for several quarters is estimated to have continued. In contrast, the Southern region is expected to have expanded for a second consecutive quarter, although starting from low levels.

Quarterly Indicator of Regional Economic Activity 1/

Index 2013=100, s. a.

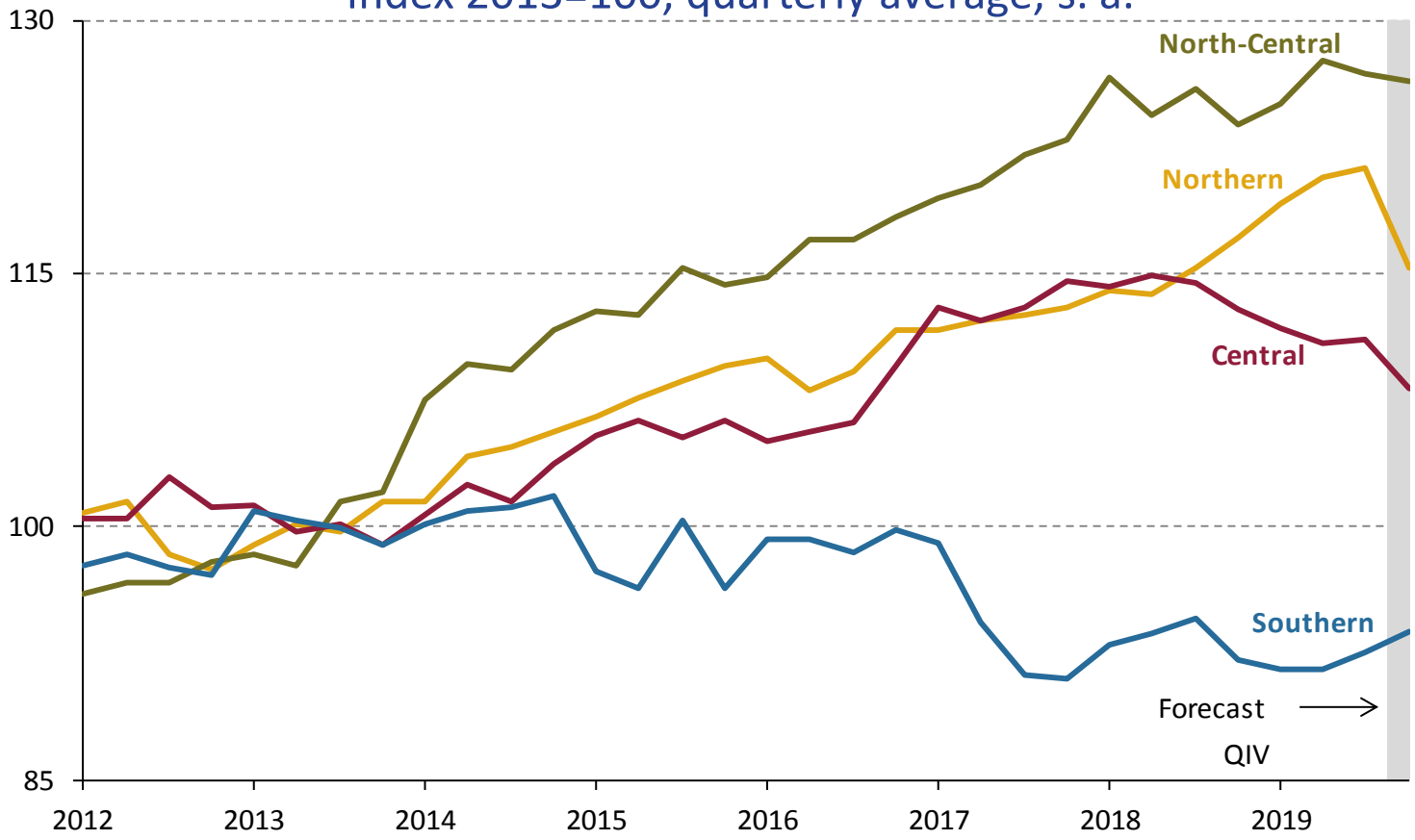


s. a. / Seasonally adjusted data.
1/ The value of Gross Domestic Product (GDP) for Q4 2019 corresponds to observed data.
Source: Estimated by Banco de México with seasonally adjusted series of domestic GDP and the Quarterly Indicator of Economic Activity by State. INEGI.

Manufacturing is estimated to have contracted in the Northern region, thus interrupting its positive trend. Likewise, manufacturing activity decreased in the Central regions, thus maintaining the weakness that both regions have been exhibiting. In contrast, the Southern region is estimated to have continued expanding, although from low levels.

Regional Manufacturing Indicator

Index 2013=100, quarterly average, s. a.



s. a. / Seasonally adjusted data.
Source: Estimated by Banco de México with seasonally adjusted series of the Monthly Indicator of Manufacturing Activity, by State. INEGI.

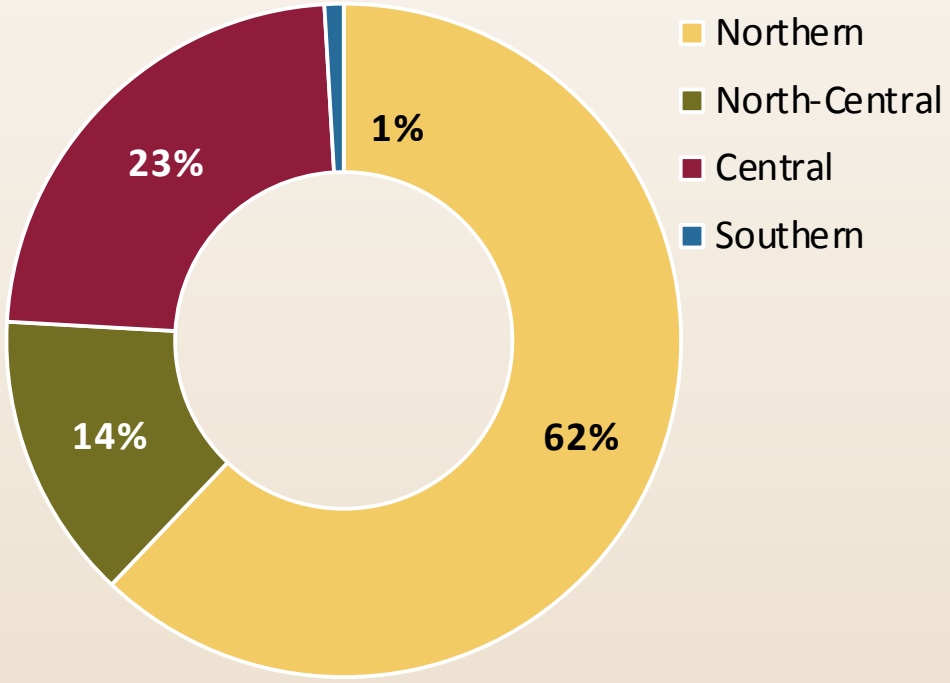
Impact of Tariff Measures Imposed by the U.S. on China on Regional Economic Activity in Mexico

- Box 2 of the Quarterly Report January-March 2019 presented estimates that suggest that the tariff measures imposed by the U.S. on China seem to have slightly increased the share of Mexican exports in US imports.[1/]
- The impact on productive activity is expected to have varied across the different regions of Mexico, given that there are differences in their productive specialization and in the indirect effects that the shock on their exports would have on other sectors.

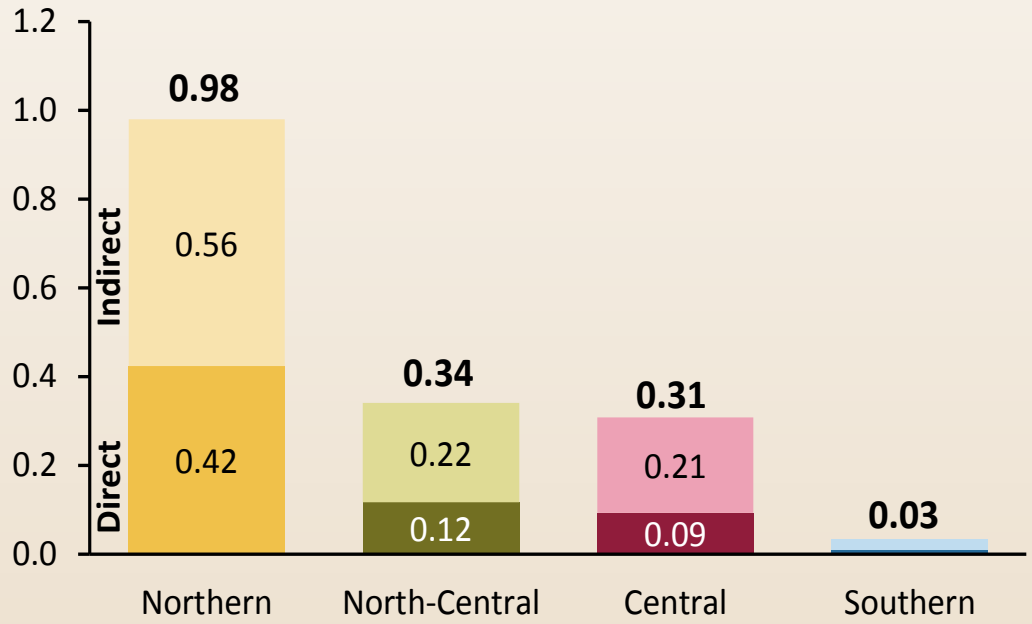
[1/] An update of these estimates suggests that the referred share increased by 0.5 percentage points, which is equivalent to 3.18% of total Mexican exports in 2017.

Impact of Tariff Measures Imposed by the U.S. on China on Regional Economic Activity in Mexico

Distribution of Shock on Exports, by Region
Percentage points



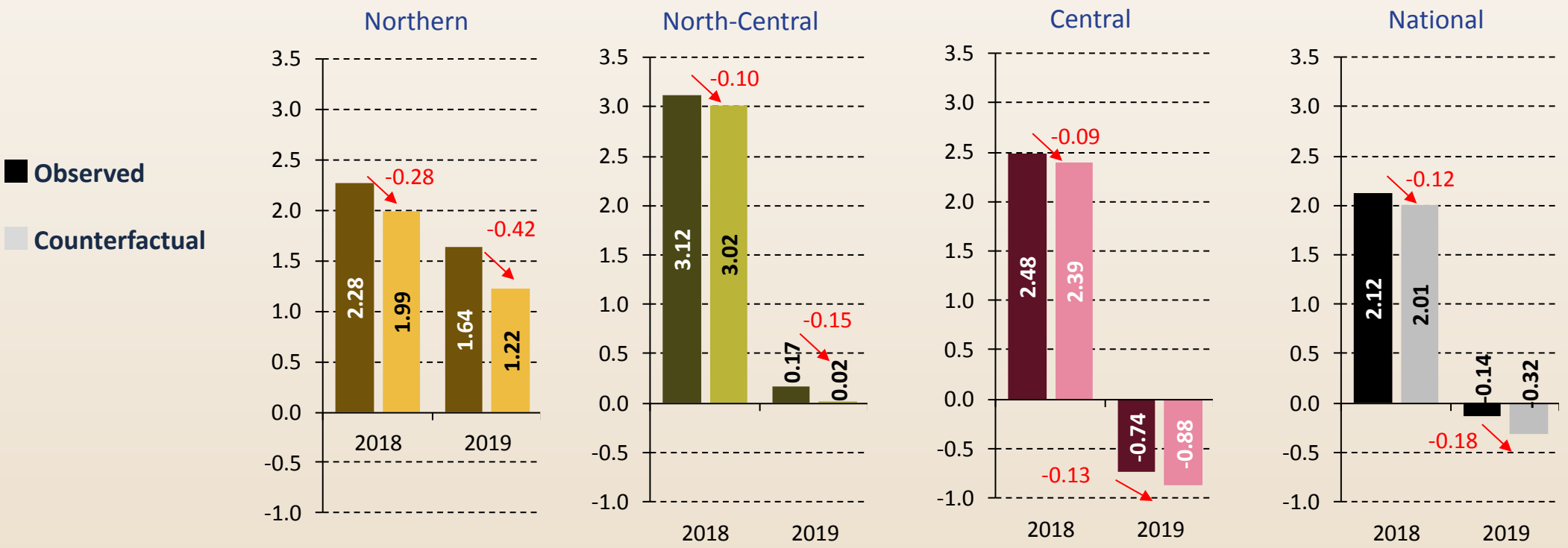
Regional Impact on Added Value, as a Share of GDP
Percentage points of GDP



Note: For the Southern region, the total effect of 0.03 includes both direct (0.01) and indirect (0.02) effects.

Impact of Tariff Measures Imposed by the U.S. on China on Regional Economic Activity in Mexico

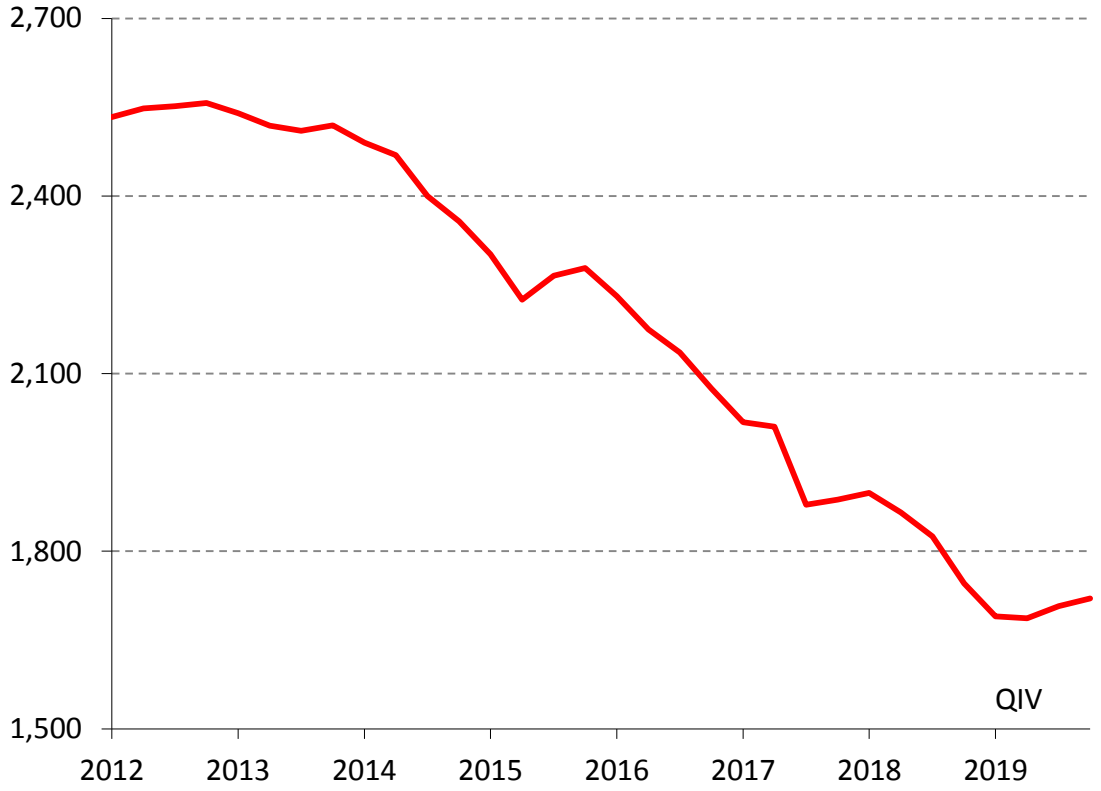
Annual Growth Rate of Observed GDP and Counterfactual GDP
Percent and percentage points



Note: The value observed for 2019 considers a forecast for the last quarter of that year.
Source: Banco de México estimates of the regional GDP, based on data of the seasonally adjusted Quarterly Indicator of Economic Activity by State (ITAEE), published by INEGI, and estimates based on 2013 Regional MCS.

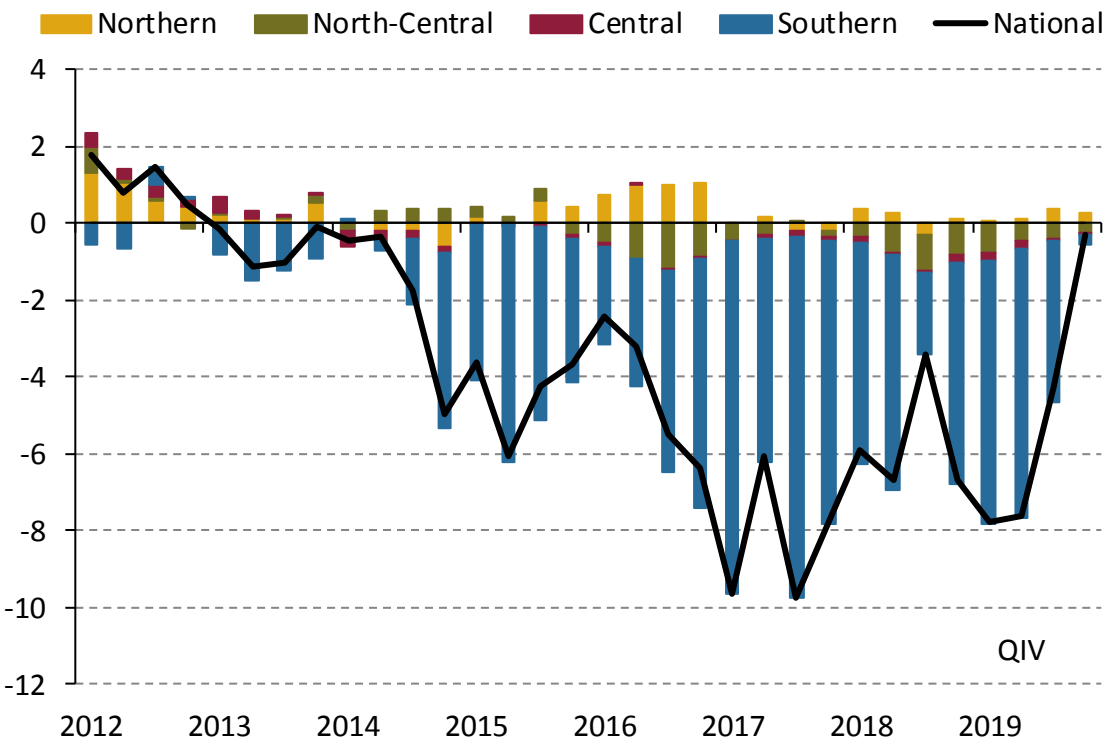
In Q4 2019, mining recovered incipiently, which was largely associated with the slight recovery in the oil production platform. As a result, the negative contribution of the Southern region to the annual growth rate of national mining activity decreased considerably.

Oil Production Platform
Thousands of barrels daily, s. a.



s. a. / Seasonally adjusted data.
Source: Estimated by Banco de México with data from PEMEX.

Regional Contribution to Annual Growth of Mining
Percentage points, s. a.



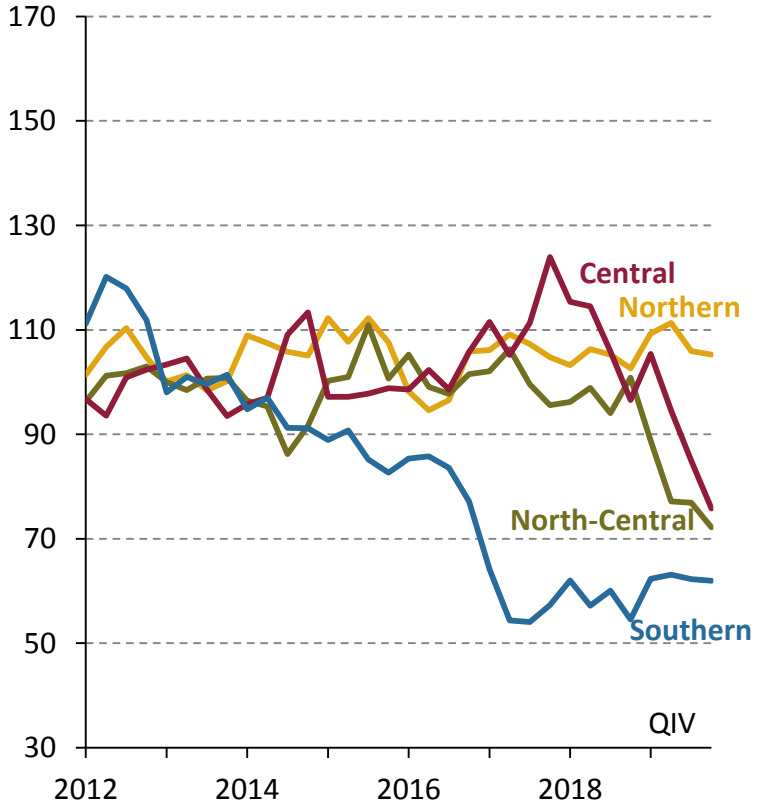
s. a. / Seasonally adjusted data.
Source: Estimated and seasonally adjusted by Banco de México with the series of the Monthly Indicator of Mining Activity, by State. INEGI.

During Q4 2019, the construction industry continued on a negative trend in the central regions, while the rest of the regions exhibited a lack of vigor.

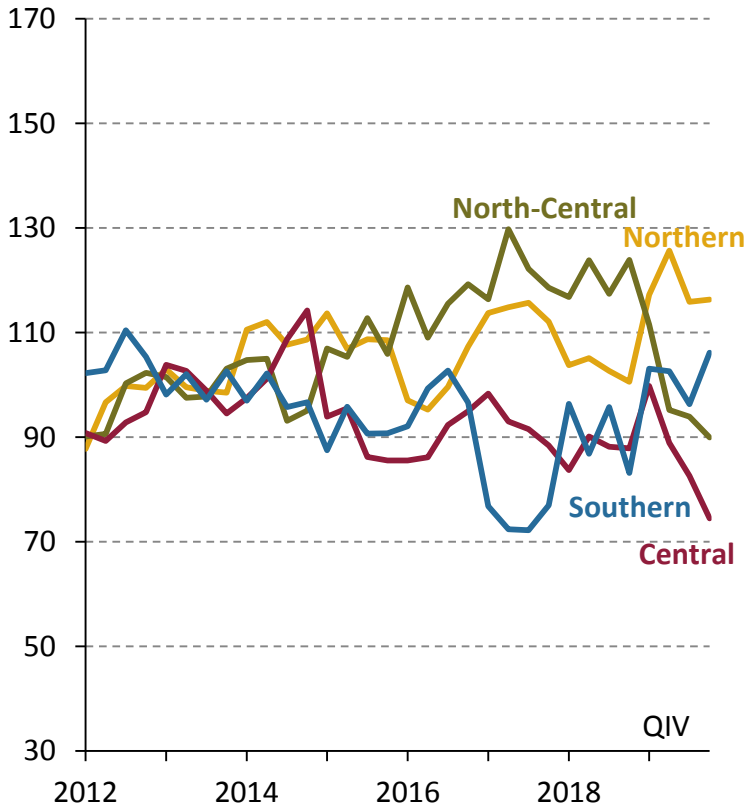
Real Value of Production in the Construction Industry, by Region

Index 2013=100, quarterly average, s. a.

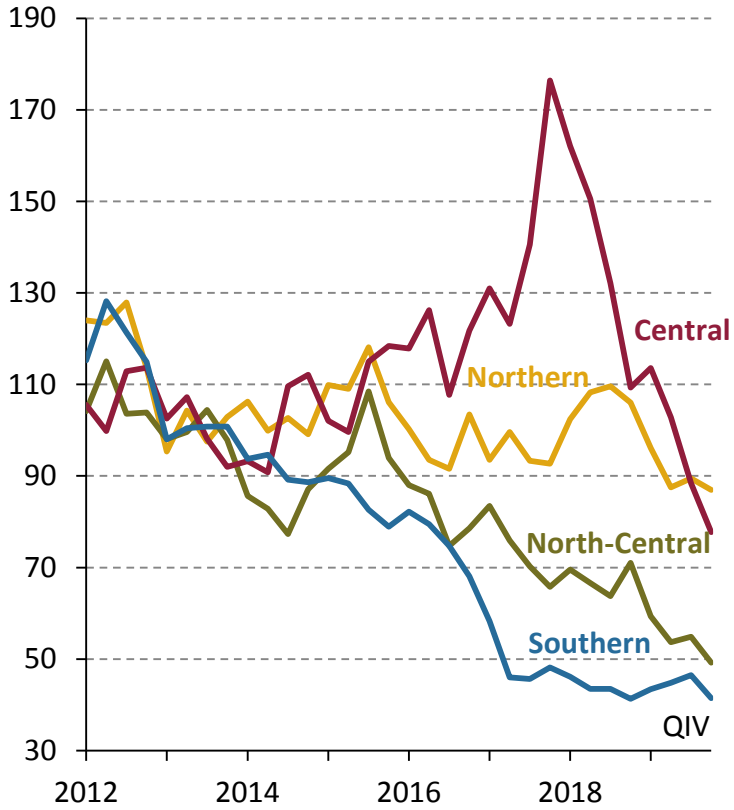
Total



Private



Public



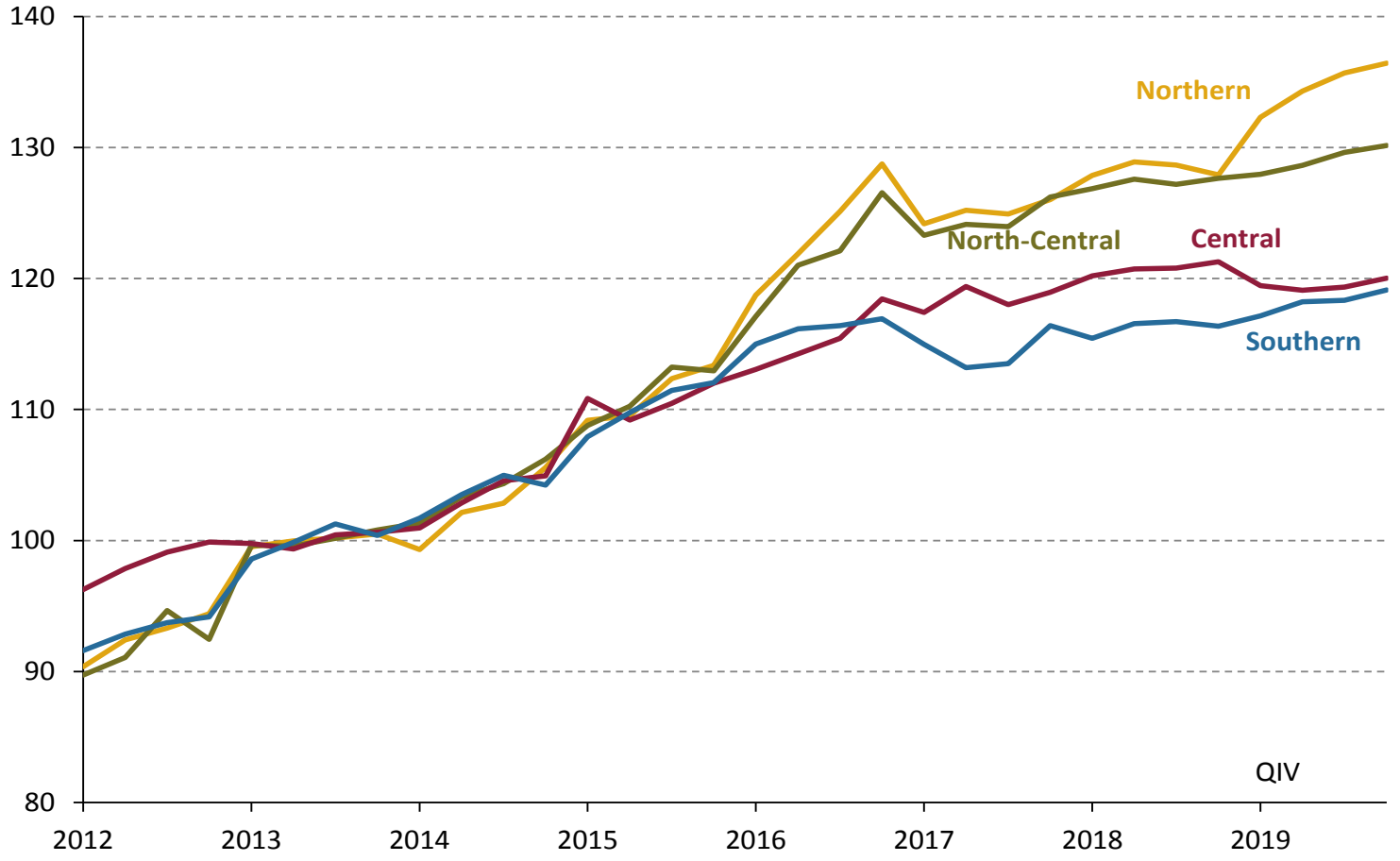
s. a. / Seasonally adjusted figures.

Source: Prepared and seasonally adjusted by Banco de México with data from the National Survey of Construction Companies. INEGI.

During the period October-December 2019, commerce continued to expand in all regions.

Regional Trade Indicator

Index 2013=100, quarterly average, s. a.

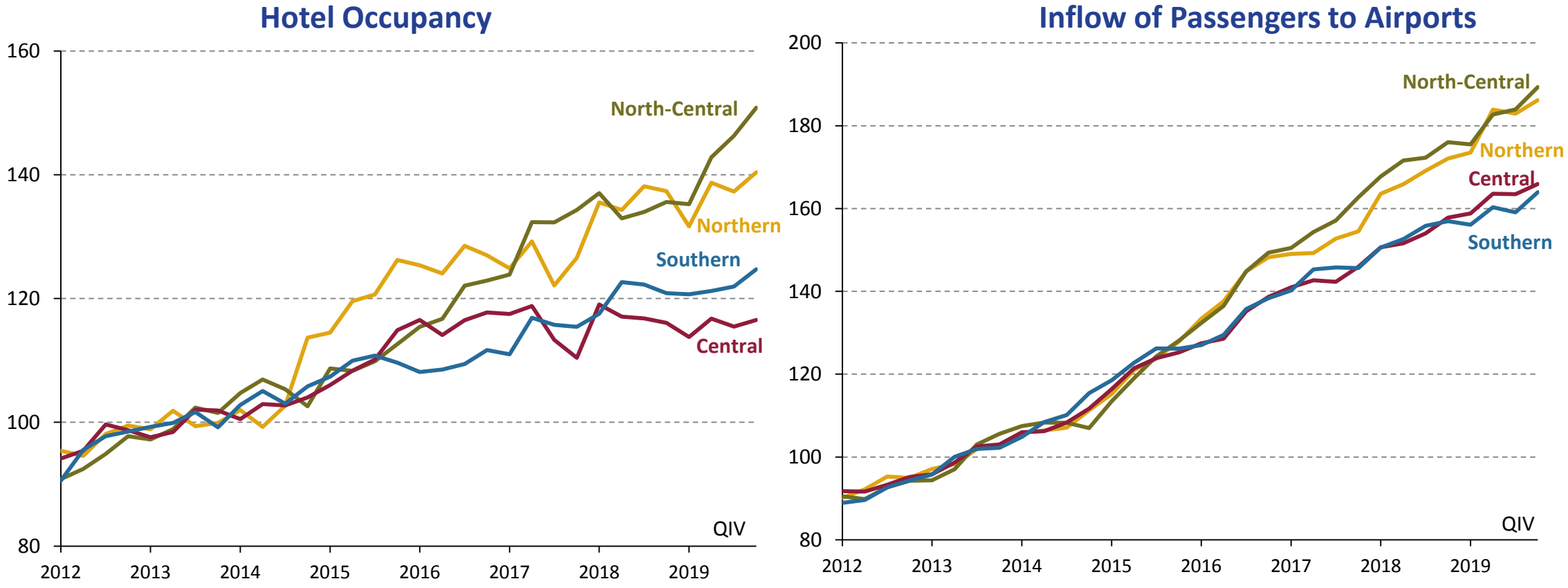


s. a. / Seasonally adjusted data.
Source: Prepared and seasonally adjusted by Banco de México with the series of Revenues from Retailers' Supply of Goods and Services, by State. INEGI.

Tourism activity, measured by hotel occupancy and inflow of passengers to airports, expanded across the four regions of Mexico during Q4 2019.

Regional Indicators of Tourism

Index 2013=100, quarterly average, s. a.



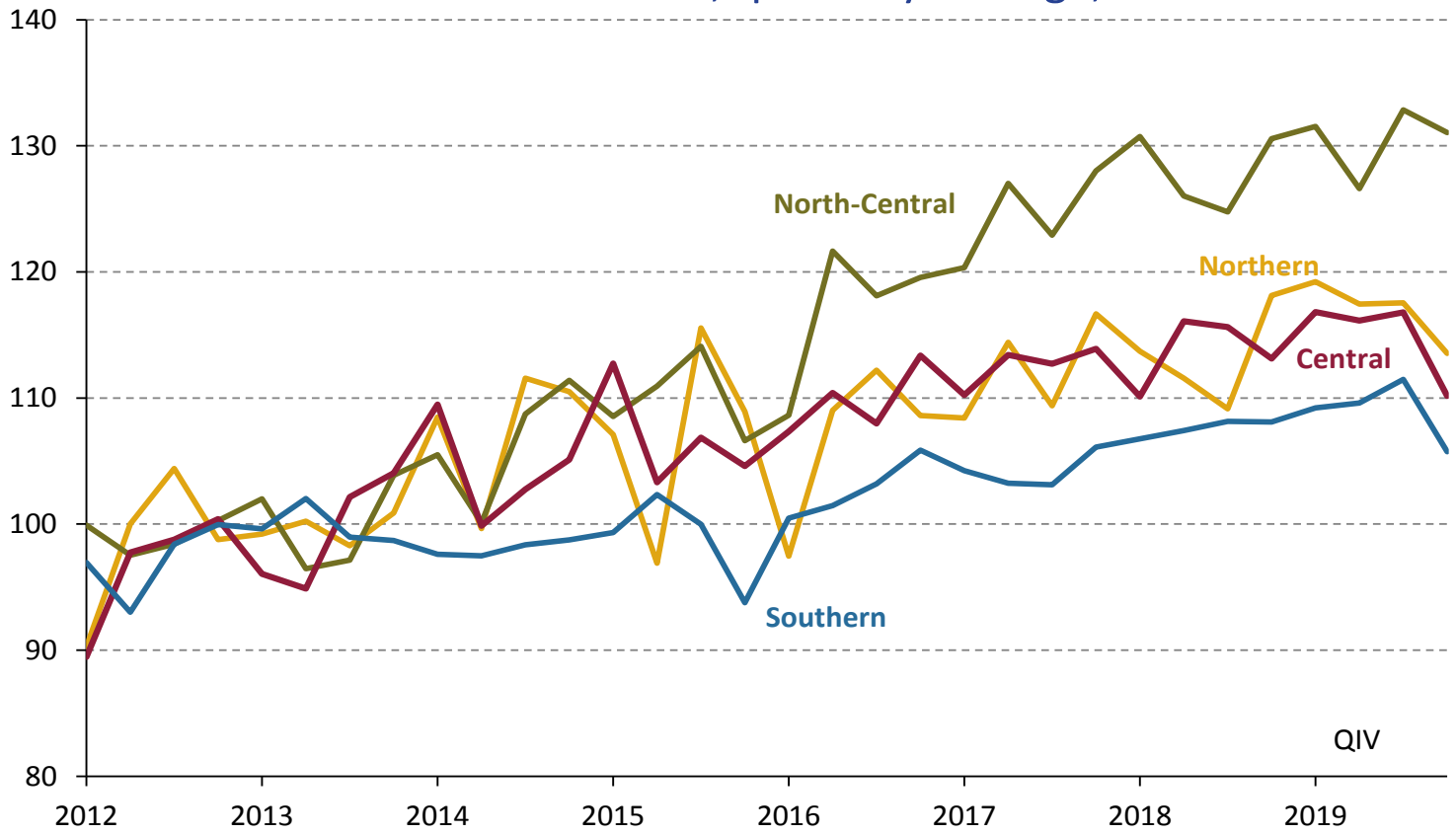
s. a. / Seasonally adjusted figures.

Source: Prepared and seasonally adjusted by Banco de México with data from the Mexican Secretariat of Tourism and the state-owned company Airport and Auxiliary Services (ASA, for its acronym in Spanish).

During Q4 2019, the agricultural and livestock product industry contracted in all regions of Mexico.

Index of Regional Agricultural and Livestock Product Production

Index 2013=100, quarterly average, s. a.



s. a. / Seasonally adjusted data.

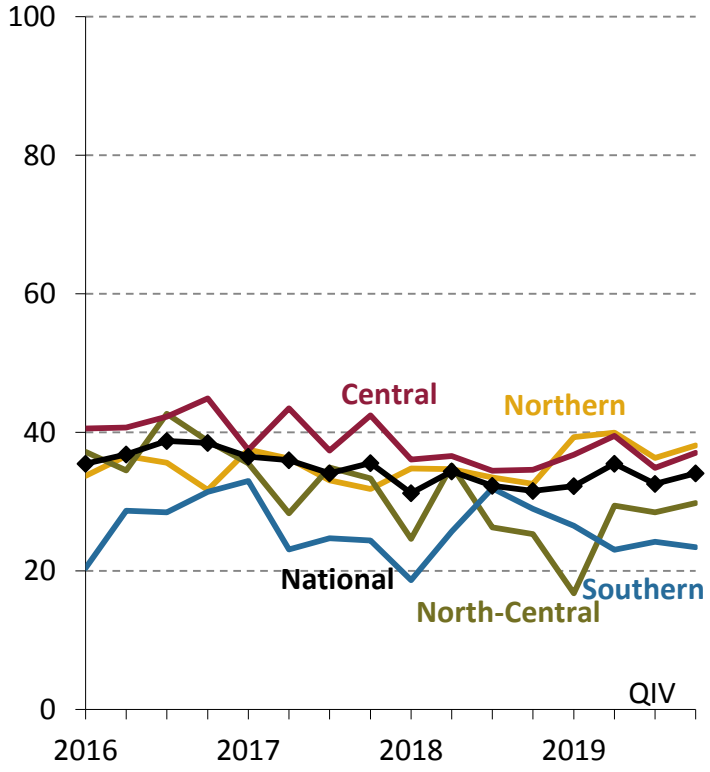
Source: Estimated and seasonally adjusted by Banco de México based on data from the Agricultural and Fisheries Information Service (SIAP, for its acronym in Spanish). Unlike GDP estimates, this indicator excludes information on the value generated by land cultivation and approximates a measurement of the gross production value, rather than a measurement of the added value generated in the sector.

The share of firms that resorted to financing their activity through commercial banks increased in all regions, except for the Southern one. The share of firms that resorted to financing with own resources continued growing in the Central and Southern regions, while in the Northern and North-Central ones it contracted.

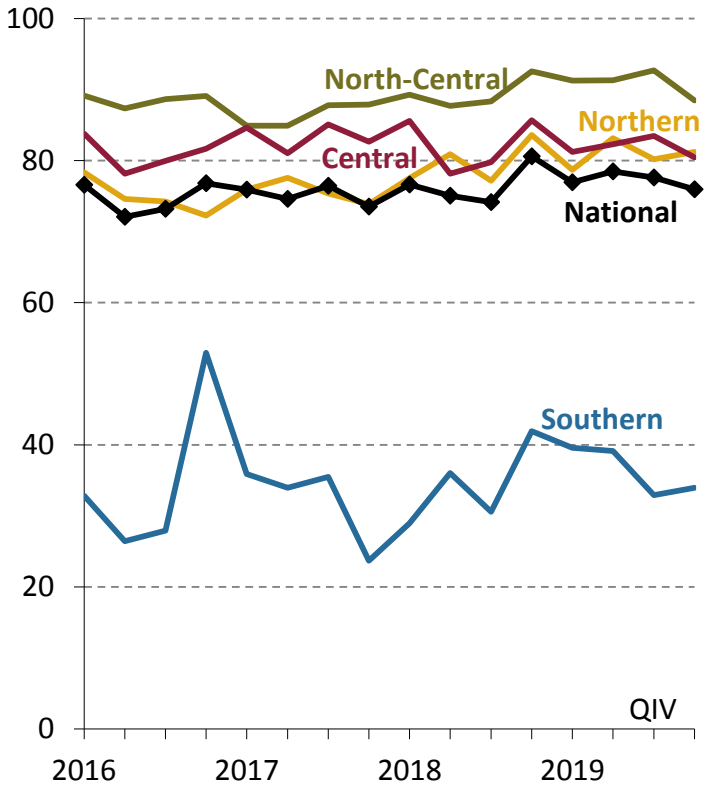
Main Sources of Financing Used by Firms in Q4

Percent of businesses that used each source of financing

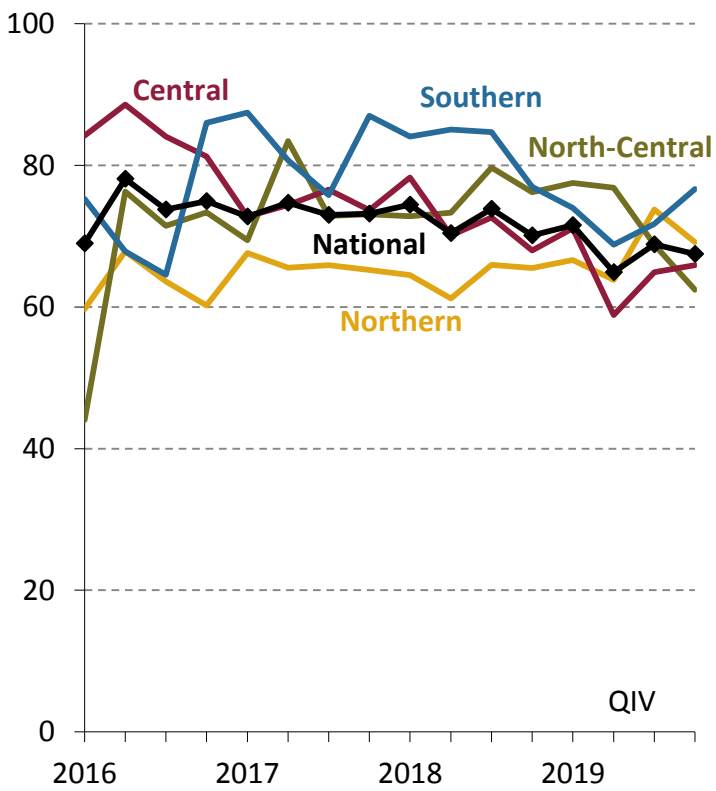
Commercial banks



Suppliers



Own resources

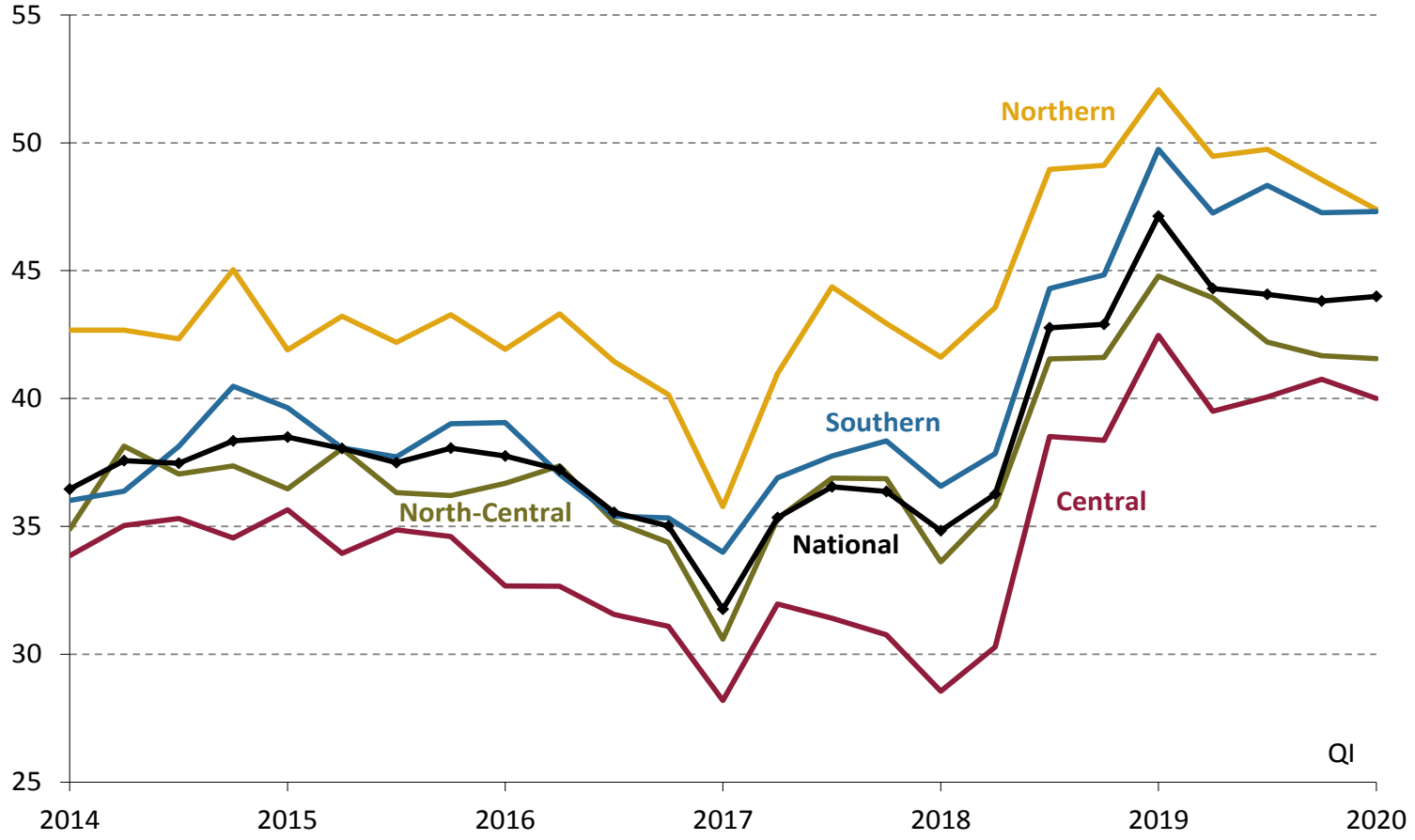


Source: Banco de México.

The Consumer Confidence Index remained at relatively high levels during the period October 2019 – February 2020.

Consumer Confidence 1/

Balance of responses, s. a.

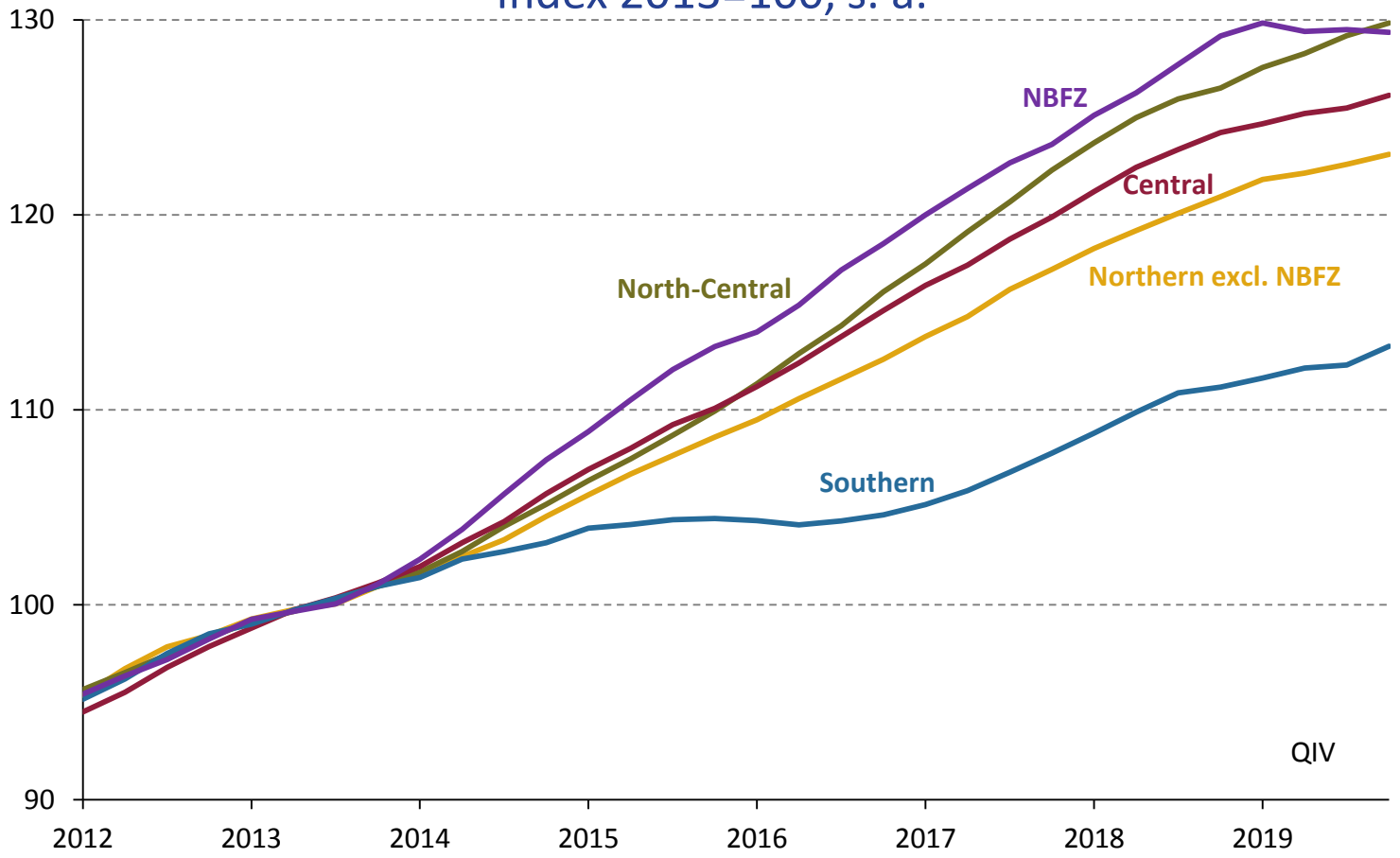


1/ This indicator's values in Q1 2020 correspond to the average of January and February.
s. a. / Seasonally adjusted data.
Source: Prepared and seasonally adjusted by Banco de México with data from the series of the Consumer Confidence Index (INEGI) and Banco de México.

In Q4 2019, the growth rate of newly created IMSS-insured jobs remained weak, except for the Southern region, where it recovered slightly.

Number of IMSS-insured Workers

Index 2013=100, s. a. 1/

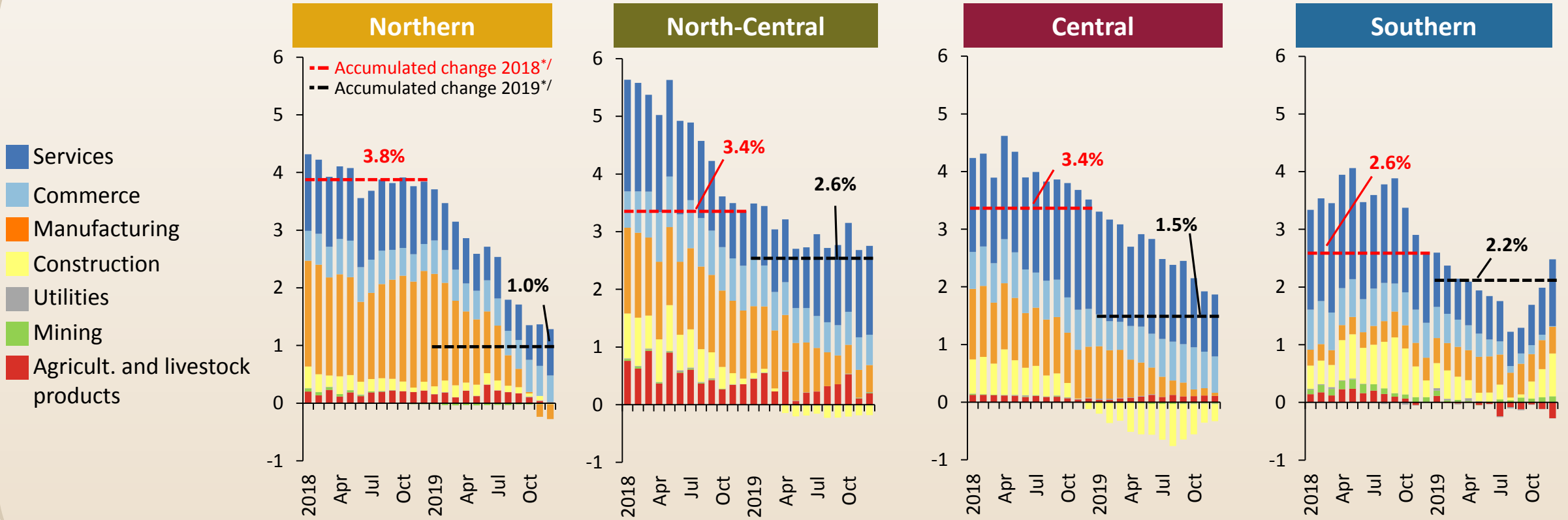


s. a. / Seasonally adjusted data.
1/ Permanent and temporary jobs in urban areas.
Source: Estimated and seasonally adjusted by Banco de México with IMSS data.

Formal Employment in Mexican Regions

Number of IMSS-insured Jobs, by Sector

Annual change and contribution by sector, percent and percentage points

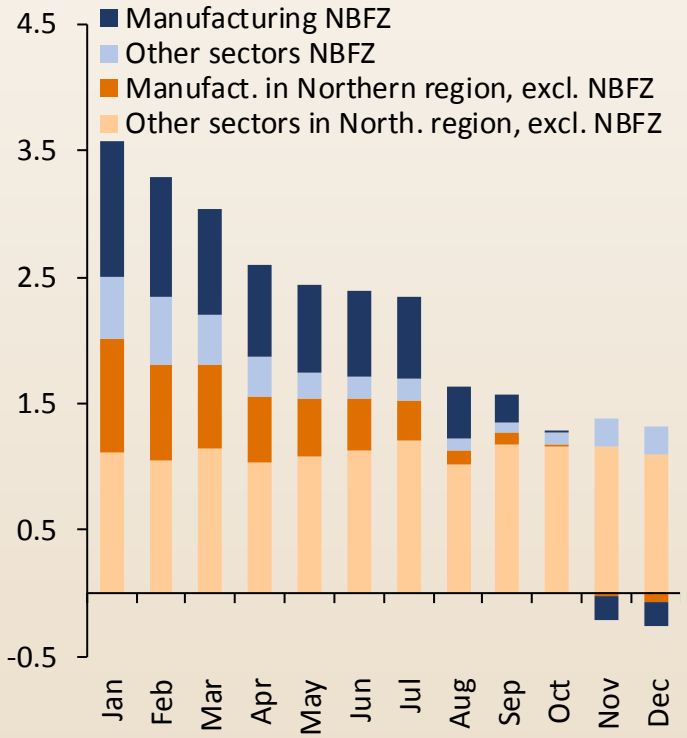


*/ The accumulated percentage change from December 2017 to December 2018 and from December 2018 to December 2019, respectively.
Source: Prepared by Banco de México with IMSS data.

Formal Employment in Mexican Regions

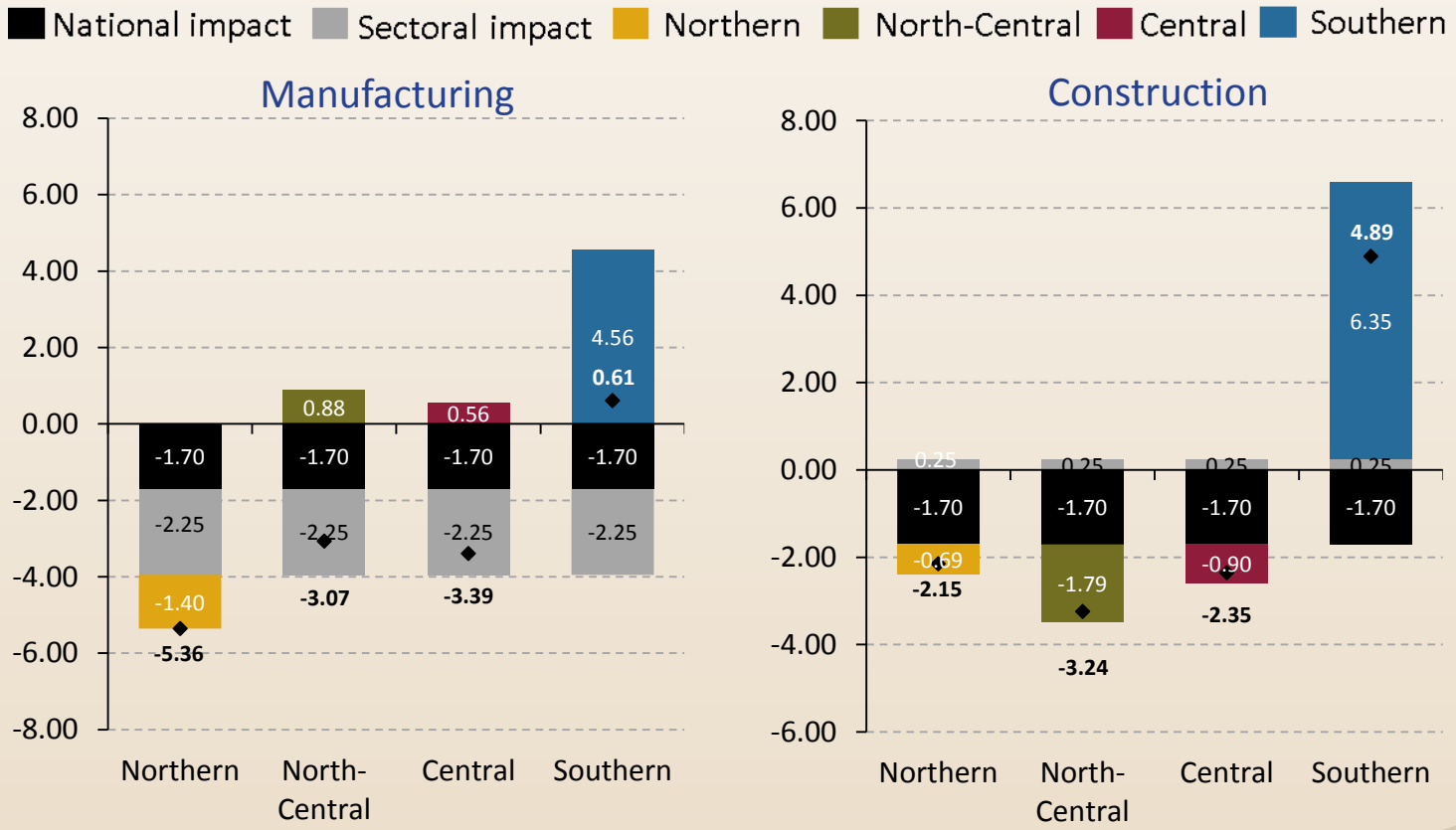
Number of IMSS-insured Jobs in the Northern Region, 2019

Contribution to the annual change, percentage points



Contribution to the Annual Growth Rate of 2019 vs. 2018, in the Number of IMSS-insured Jobs, at Sector-Region Level

Contribution to the annual change, percentage points



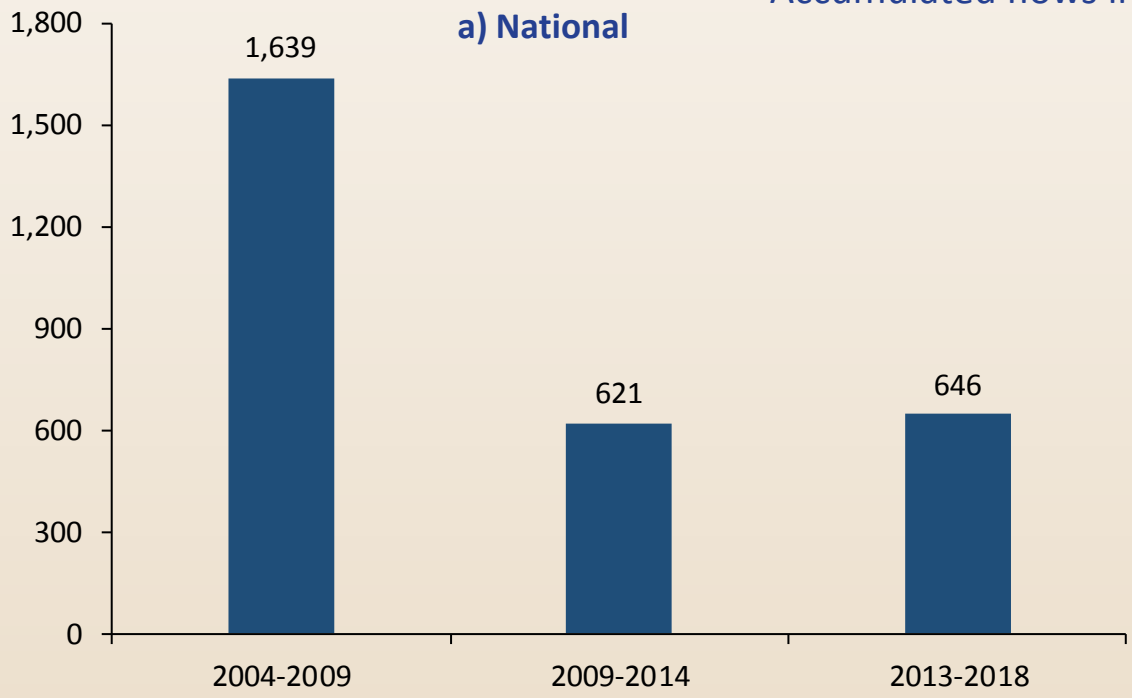
Source: Prepared by Banco de México with IMSS data.

Recent Regional Patterns of Mexican Migration to the U.S.

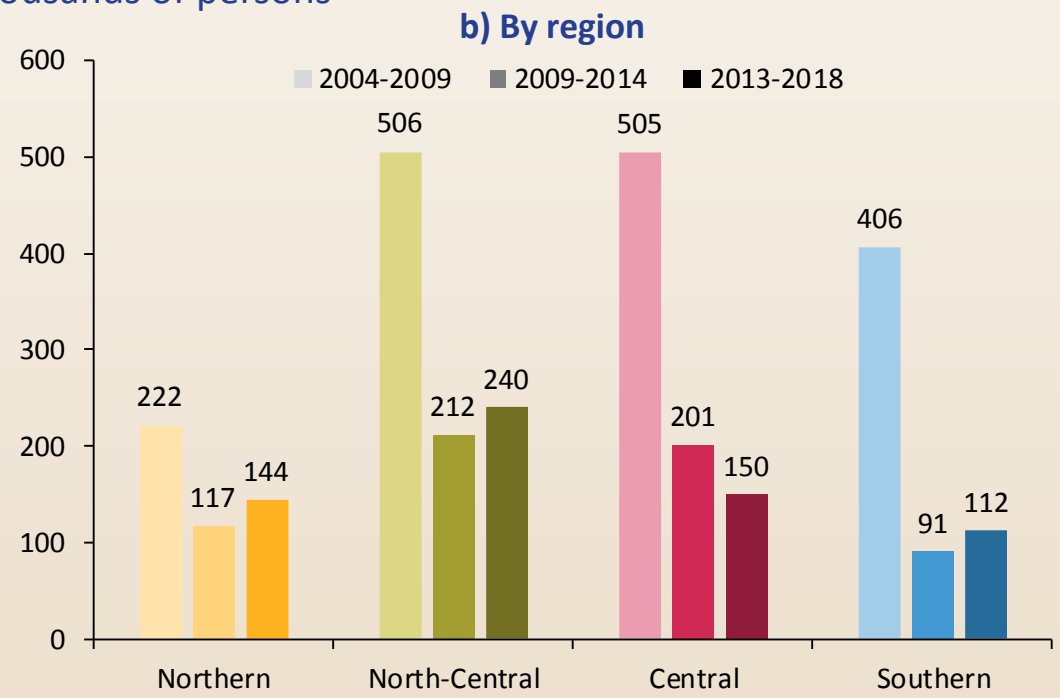
- In the periods 2004-2009 and 2009-2014, the total flow of migrants more than halved and remained relatively stable in the period 2013-2018.

Total Migrants from Mexico to the U.S.

Accumulated flows in thousands of persons



Source: Prepared with data from ENADID 2009, 2014 and 2018.



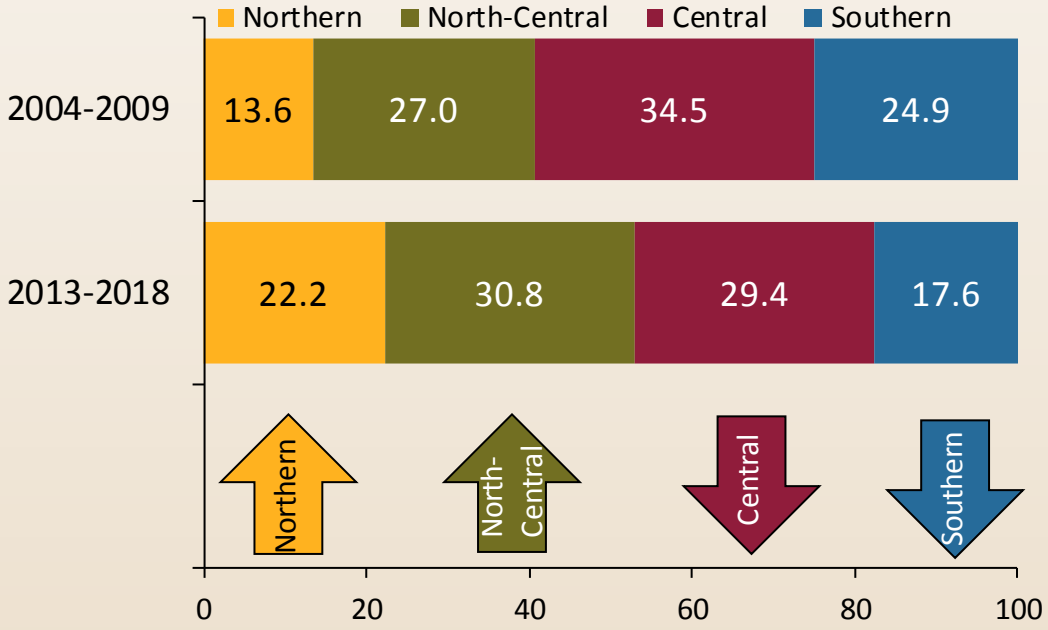
Source: Prepared with data from ENADID 2009, 2014 and 2018.

Recent Regional Patterns of Mexican Migration to the U.S.

- In the Central and Southern regions, migrant flows decreased more than proportionally in the country's total flows. The reduction was widespread across the states of said regions.

Flow of Total Migrants from Mexico to the U.S., by Region

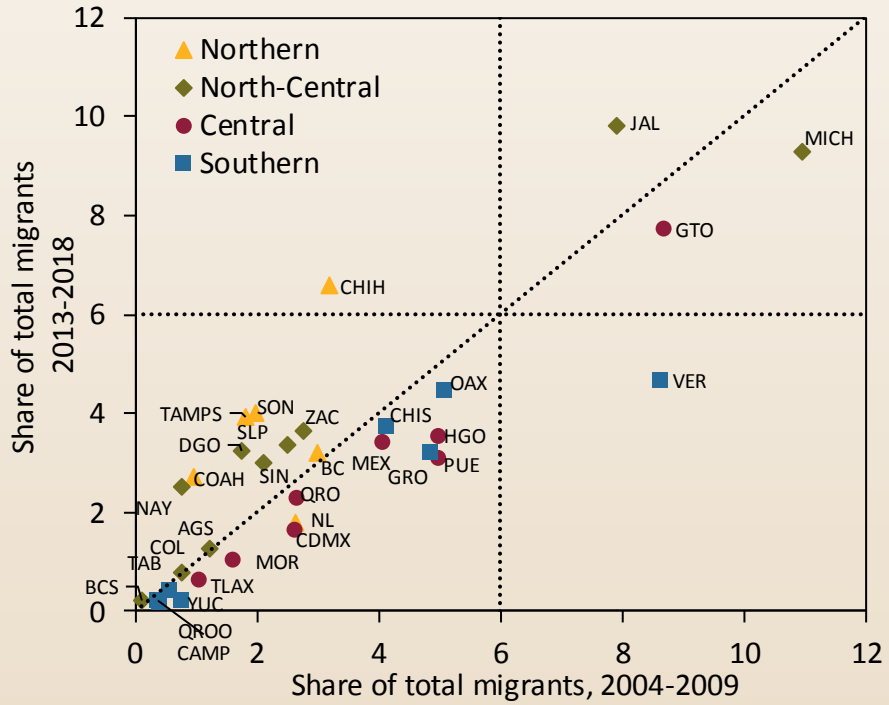
Region's share in the country's total (%)



Source: Prepared with data from the US Department of State.

Migrants from Mexico to the U.S., by State 2013-2018 and 2004-2009

State's share in the country's total (%)



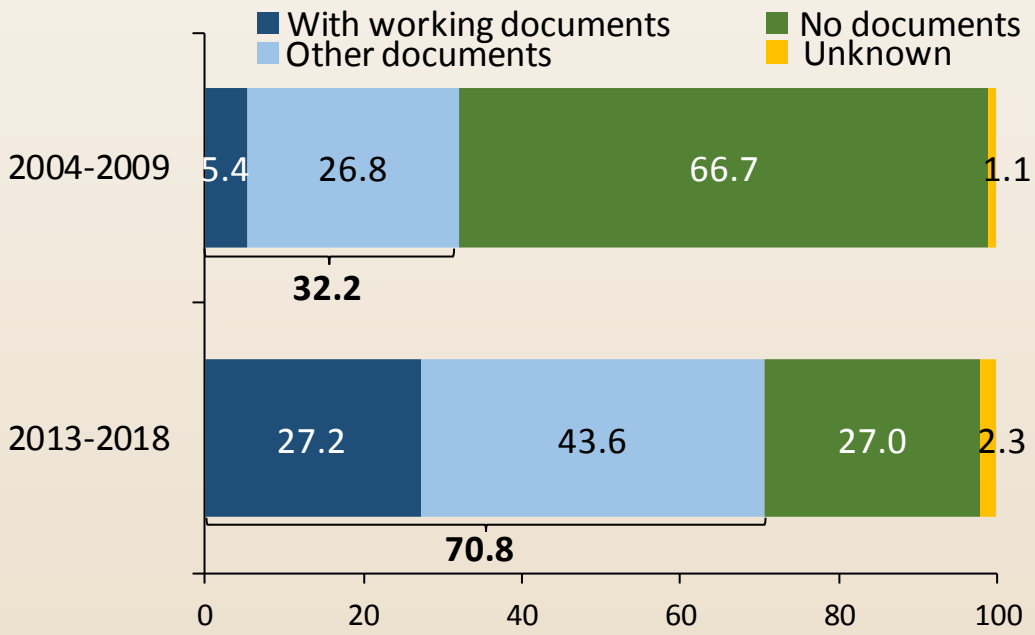
Source: Prepared with data from ENADID 2009, 2014 and 2018.

Recent Regional Patterns of Mexican Migration to the U.S.

- The composition of migration flows changed as well: the share of undocumented immigrants declined, and the share of immigrants with working documents increased.

Total Migrants from Mexico to the U.S., by Type of Document

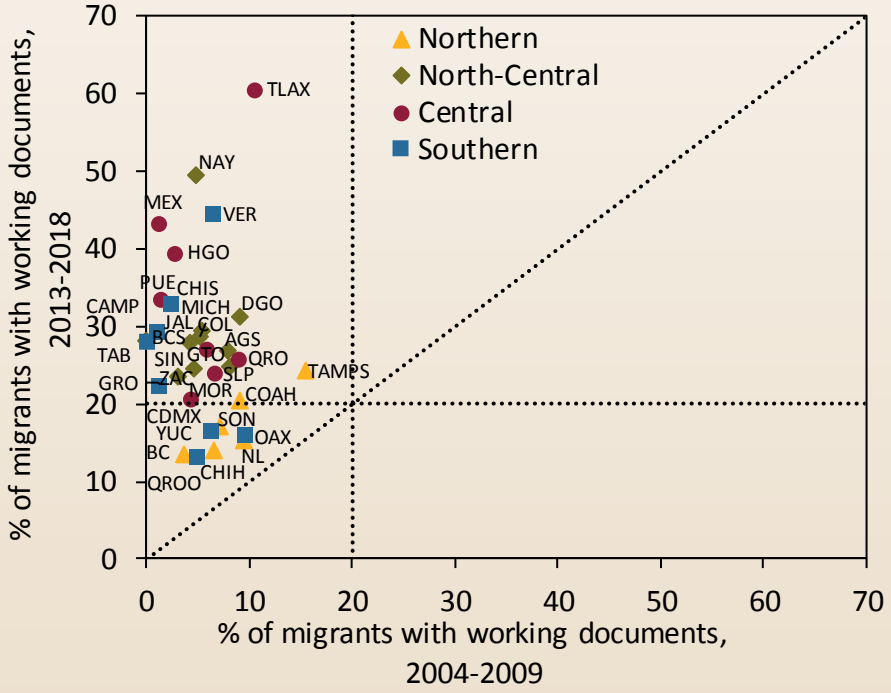
Percent



Note: "Other documents" include the resident permit, student visa, tourist visa, US citizenship and other documents.
Source: Prepared with data from ENADID 2009, 2004 and 2018.

Migrants from Mexico to the U.S. with Working Papers vs. Total Migrants by State 2013-2018 and 2004-2009

Percent



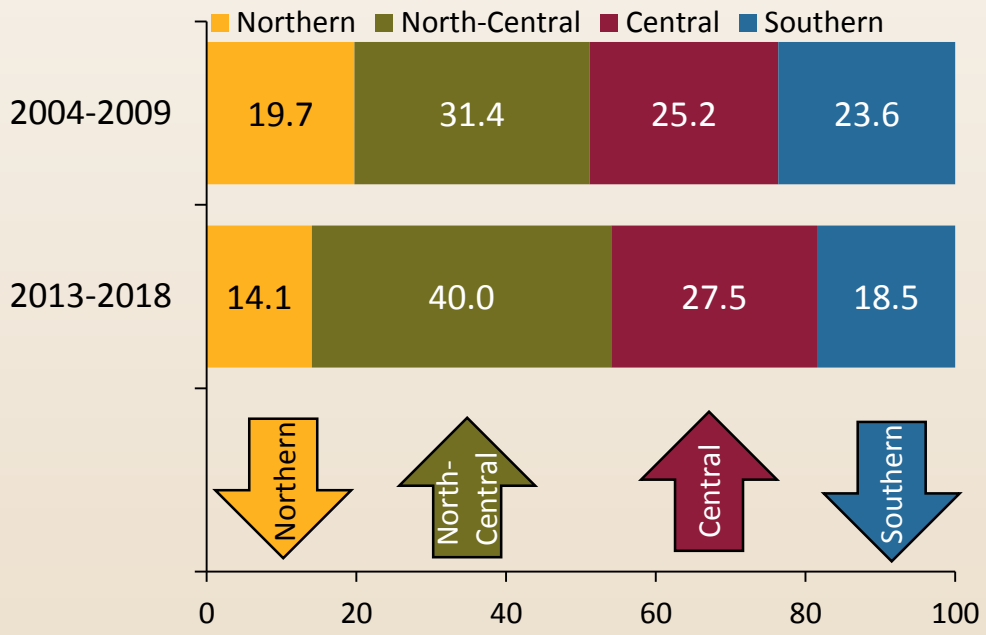
Source: Prepared with data from ENADID 2009 and 2018.

Recent Regional Patterns of Mexican Migration to the U.S.

- The North-Central region had the largest share of migrants with working papers. However, no homogeneous pattern is observed among each region's states.

Migrants with Working Papers, from Mexico to the U.S., by Region

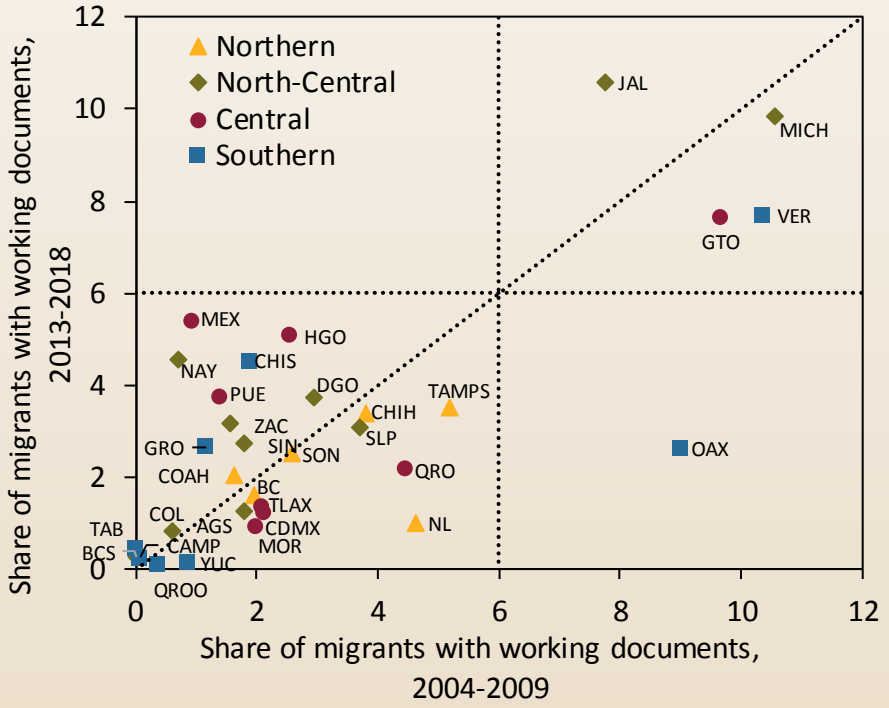
Share of the region in the total of the country



Source: Estimated by Banco de México with data from ENADID 2009, 2004 and 2018.

Migrants from Mexico to the U.S., with Working Papers, by State 2013-2018 and 2004-2009

Share of the state in the total of the country (%)



Source: Estimated with data from ENADID 2009 and 2018.

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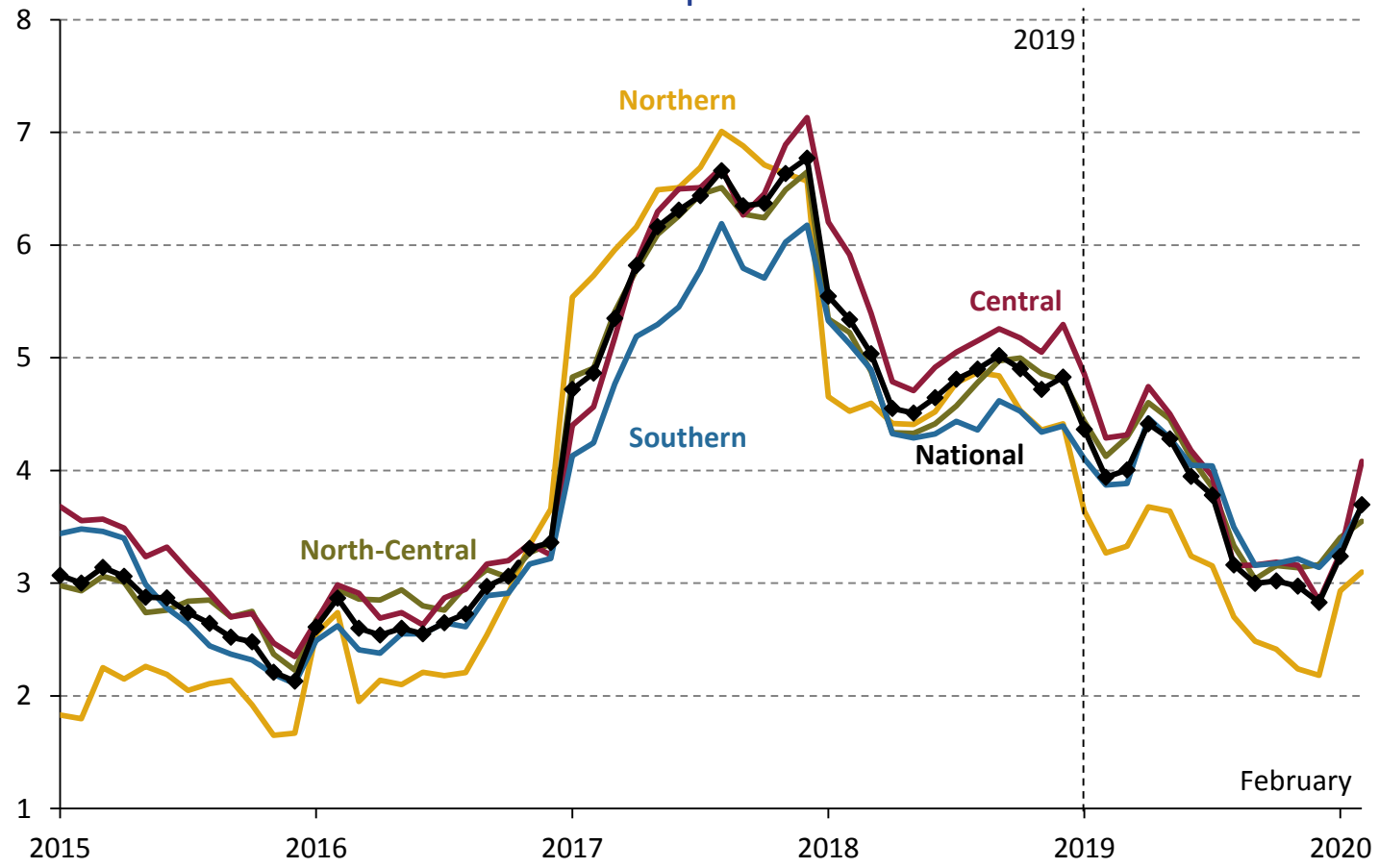
(based on data obtained between January 6 and January 30, 2020)

III. Final remarks

In Q4 2019, average annual headline inflation in the regions considered in this Report declined with respect to Q3 2019. In early 2020, said annual headline inflation rebounded.

Annual Headline Inflation, by Region

Data in percent

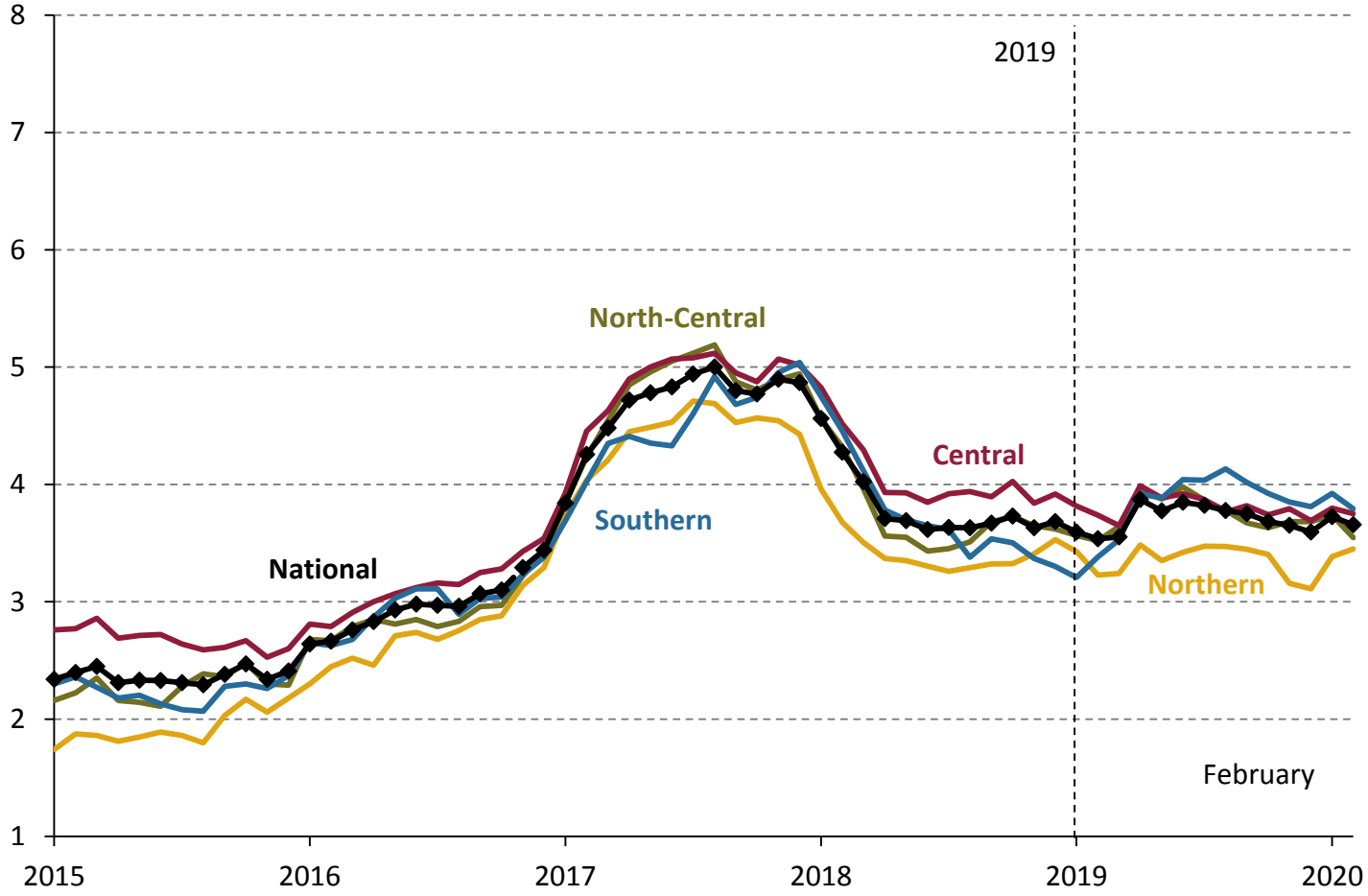


Source: Prepared by Banco de México with data from INEGI and Banco de México.

Annual core inflation in most regions continued to show persistence during the reference period.

Annual Core Inflation, by Region

Data in percent

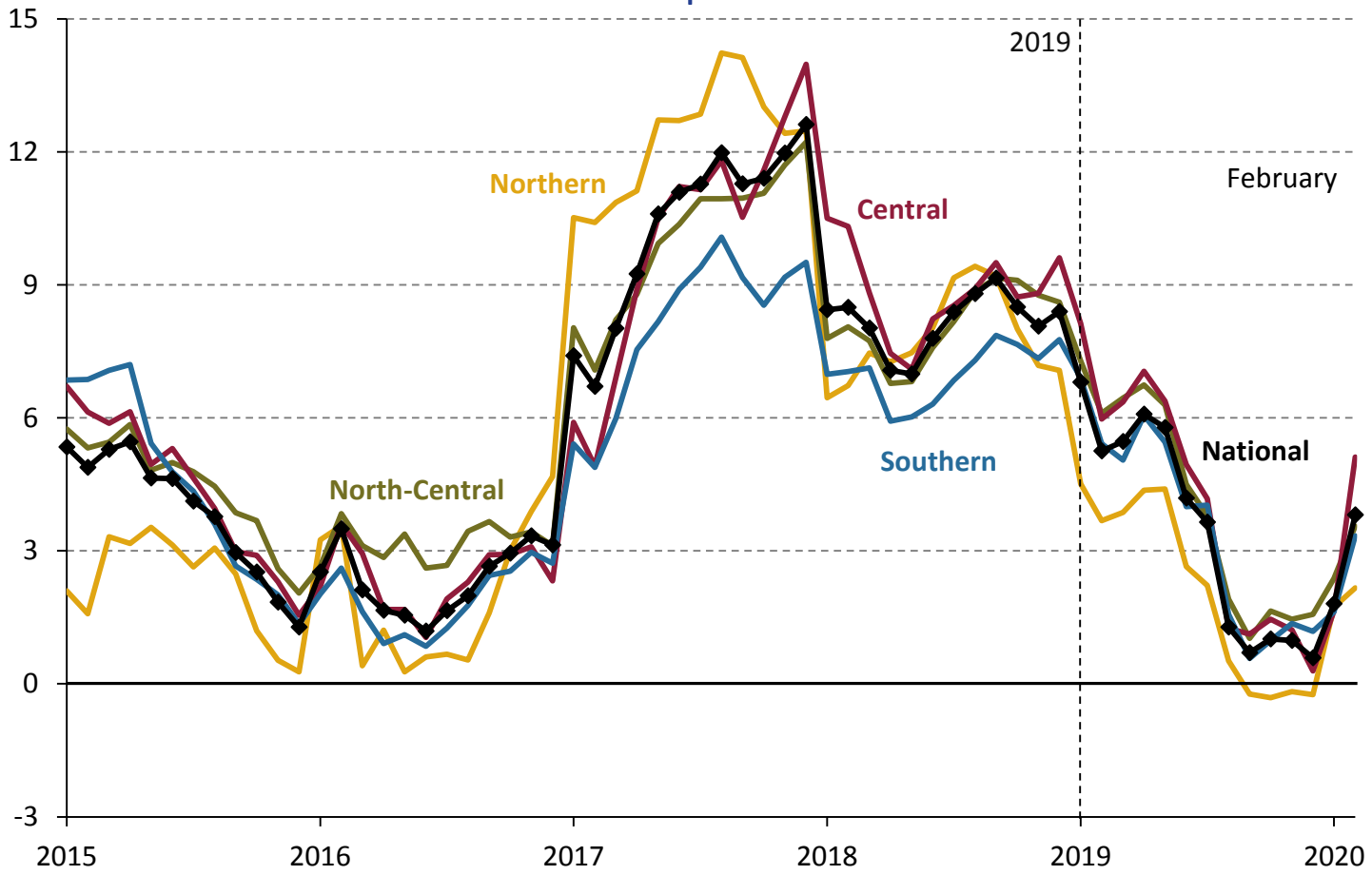


Source: Prepared by Banco de México with data from INEGI and Banco de México.

Annual non-core inflation in all regions remained at particularly low levels during Q4 2019, although in early 2020 it increased.

Annual Non-core Inflation, by Region

Data in percent



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

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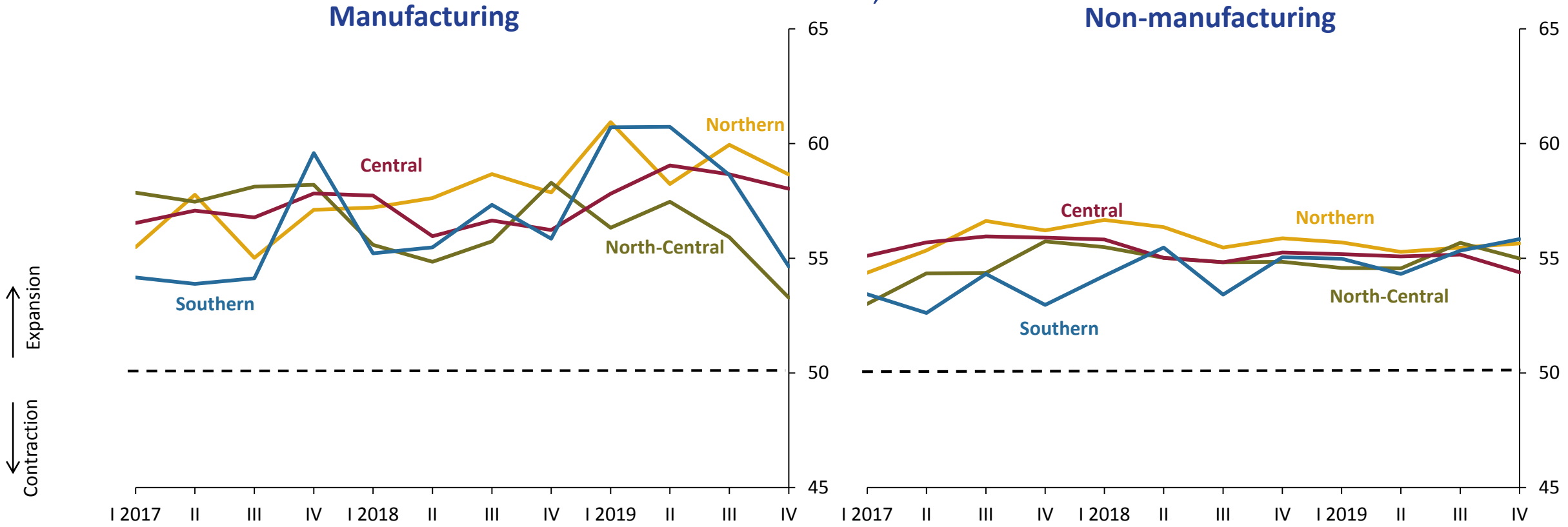
(based on data obtained between January 6 and January 30, 2020)

III. Final remarks

Regional indices signal an expansion in both manufacturing and non-manufacturing activity during the next 3 months in all Mexican regions. However, in the manufacturing sector, said signal weakened in all regions. In the non-manufacturing sector the signal strengthened slightly in the Northern and Southern regions, while it weakened slightly in the Central regions.

Regional Index of Manufacturing and Non-manufacturing Orders: Activity Outlook, Next 3 Months

Diffusion indices, s. a.



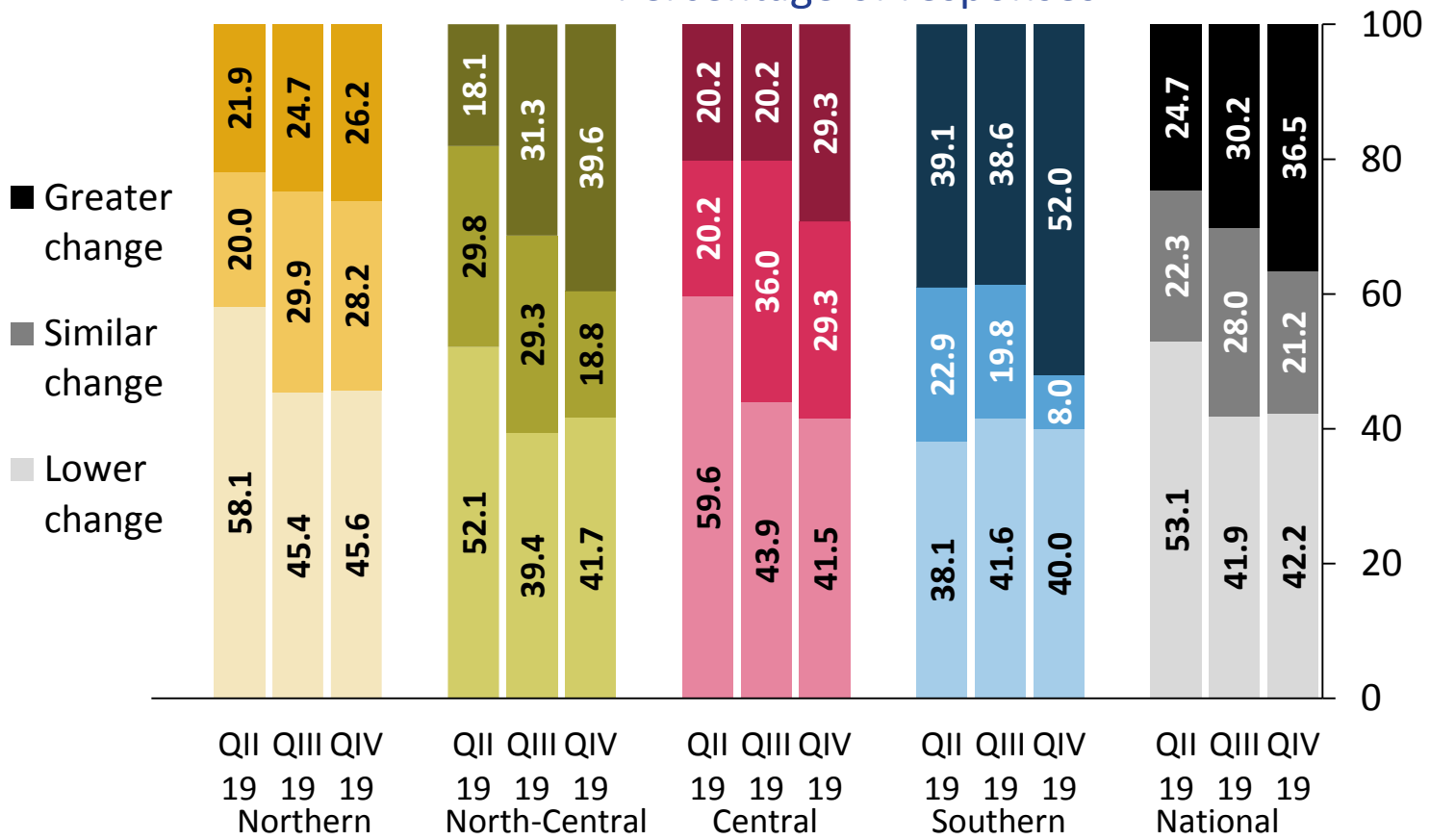
s. a. / Seasonally adjusted data.

Source: Banco de México. Figures for Q4 2019 were obtained from data collected between October 1 and December 30, 2019.

Regarding demand for own goods and services, in all regions, the majority of consulted business agents anticipate equal or greater growth than that observed in the previous 12 months.

Business Agents' Expectations: Demand over Next 12 Months 1/

Percentage of responses

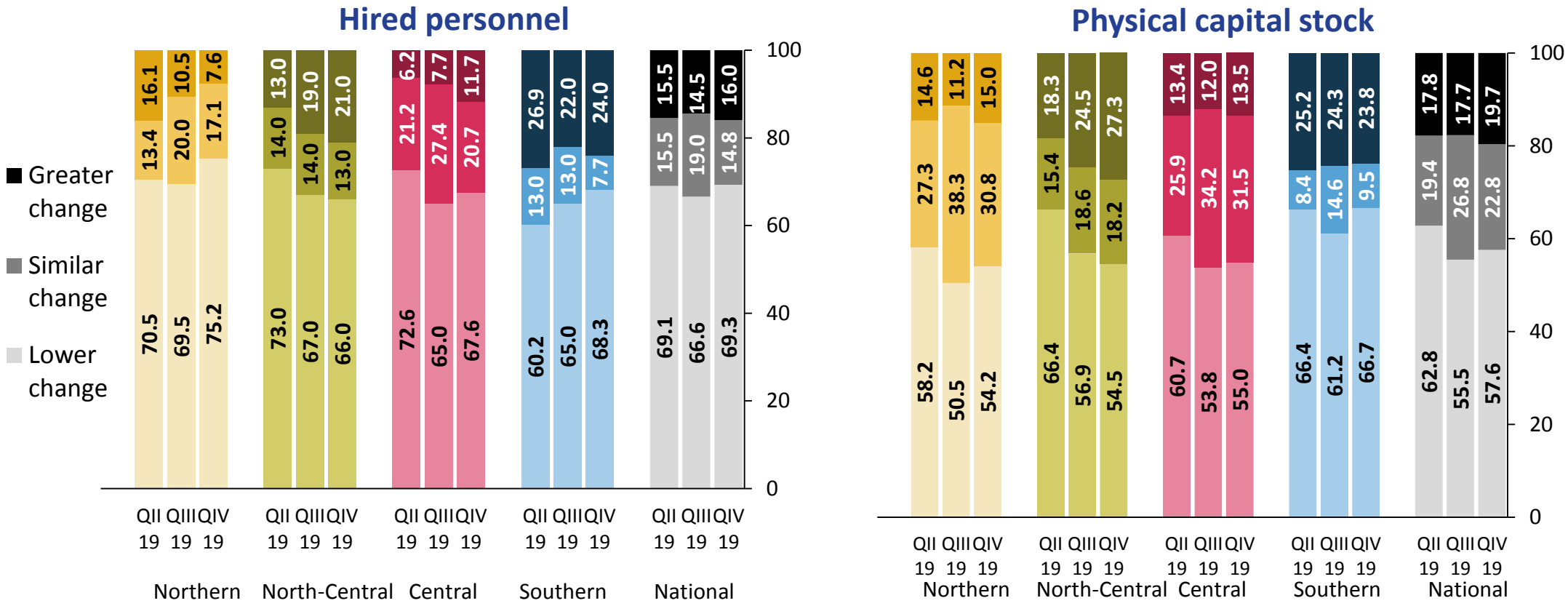


1/ Results obtained from responses to the question: "With respect to the volume of sales of your goods and services in the previous 12 months, how do you expect your sales volume to change in the next 12 months?", from interviews conducted by Banco de México. Figures for Q4 2019 were obtained between January 6 and January 30, 2020.

Consistent with the expected growth in demand for own goods and services, business agents anticipate an increase in the volume of hired personnel and physical capital in all regional economies.

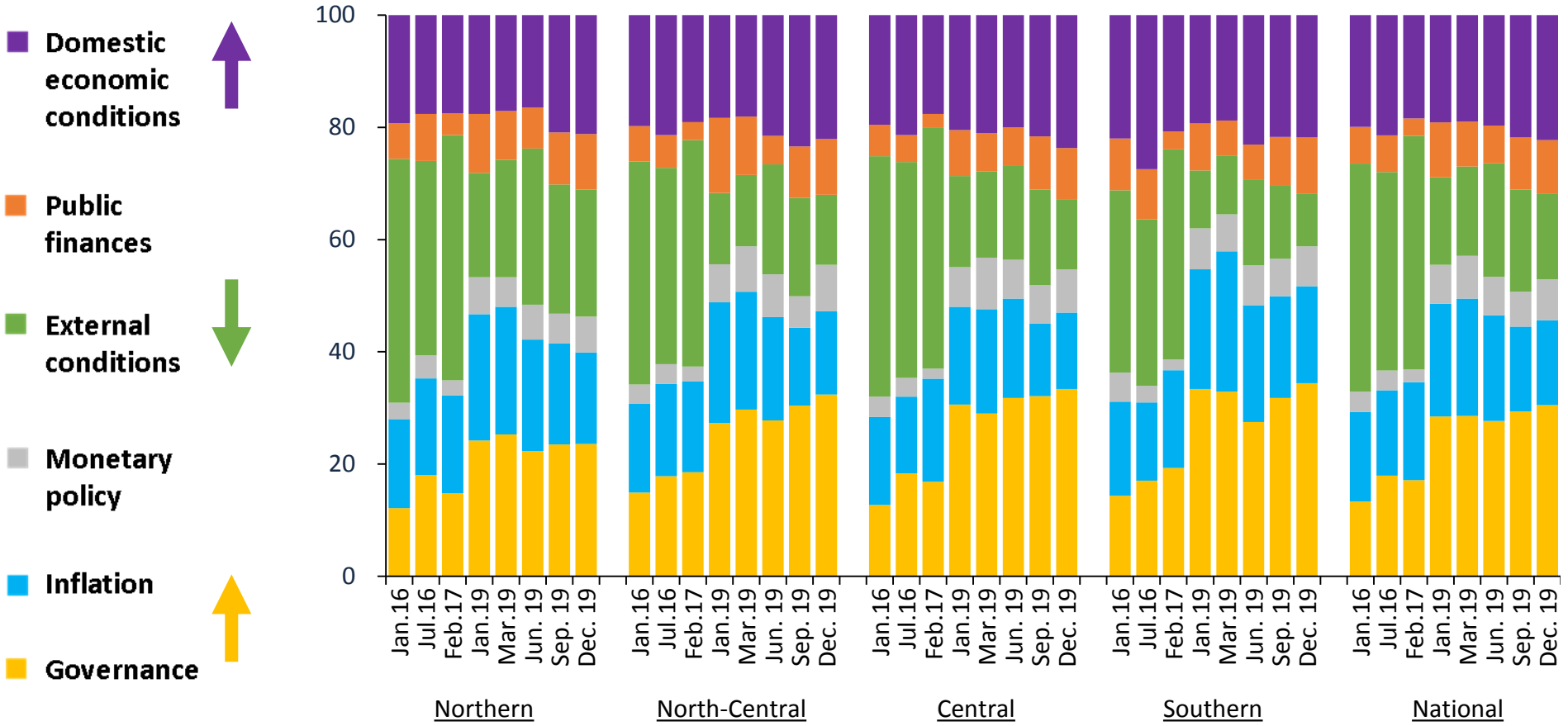
Business Agents' Expectations: Hired Personnel and Physical Capital Stock, Next 12 Months [1/]

Percentage of responses



1/ Results obtained from responses to questions: "With respect to the previous 12 months, how do you expect the total number of workers in your firm to change in the next 12 months?", and "With respect to your firm's investment in fixed assets during the previous 12 months, how do you expect investment levels to change in the following 12 months?", from interviews conducted by Banco de México. Figures for Q4 2019 were obtained between January 6 and January 30, 2020.

Percentage Distribution of Business Agents' Responses when Interviewed about the Main Three Factors that Could Hinder Growth of Economic Activity in their States in the Next 6 Months [1/]



1/ Question: "Which do you consider to be the main three limiting factors for growth of economic activity in your state during the next 6 months?" This question is similar to that included in the questionnaire of the Survey among Private Sector Forecasters. Figures for December 2019 were obtained based on data collected between December 2-30, 2019.
Source: Banco de México.

Business Agents' Opinion on Risks to Regional Economic Activity (based on data collected between January 6 and January 30, 2020) 1/

Upward risks

- That the levels of private investment are higher than expected, particularly due to the ratification of the USMCA.
- That public investment in infrastructure is revamped.

Downward risks

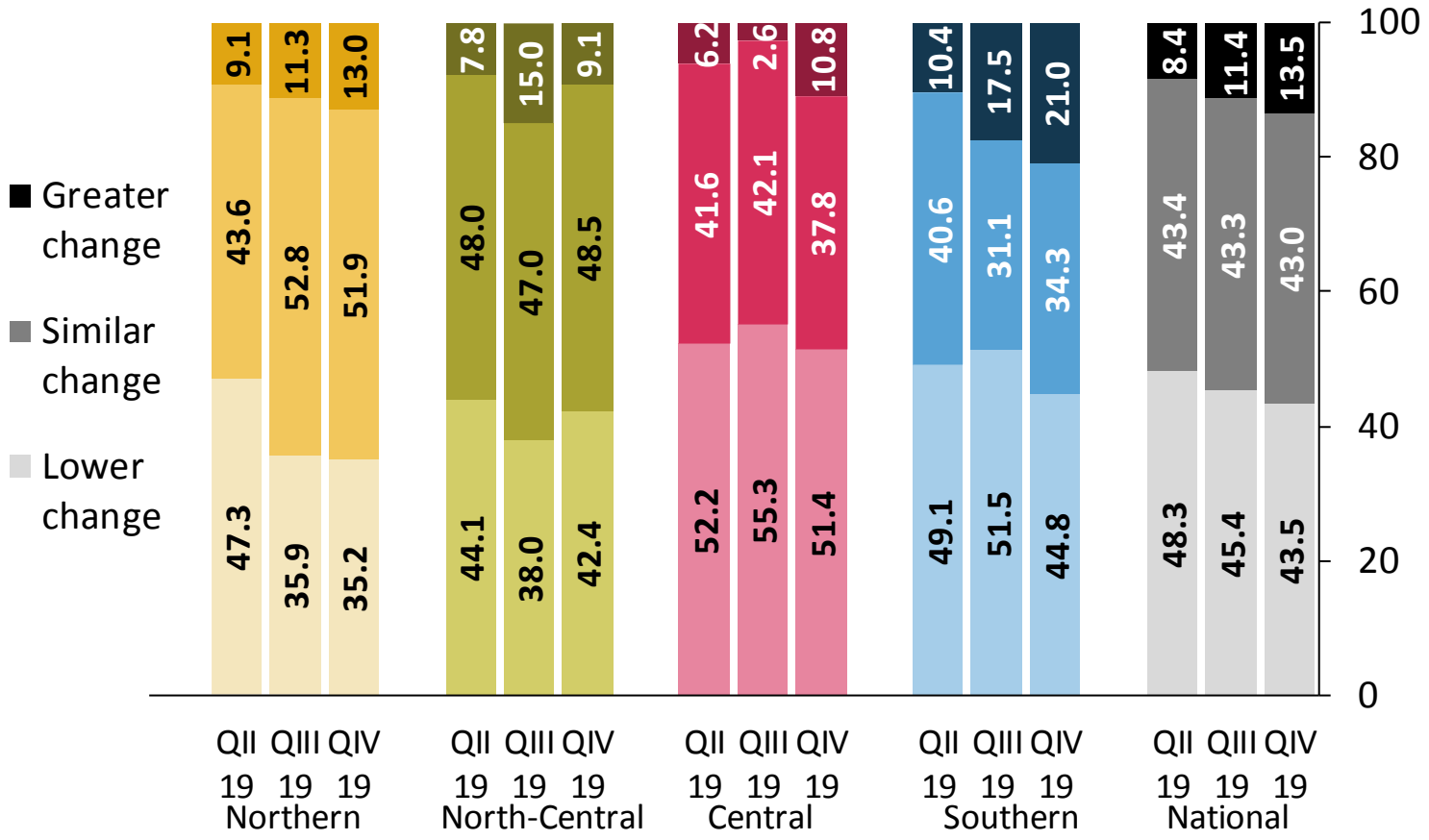
- That public insecurity increases.
- That the environment of domestic uncertainty that has been affecting investment persists.
- That public spending is lower than expected, particularly that corresponding to federal transfers to states and municipalities.

1/ Results obtained from responses to the questions: "Which are the main 2 events/situations/facts that, if they occur, would boost economic performance in your state in the next 12 months?" and "Which are the main 2 events/situations/facts that, if they occur, would hinder economic growth in your state in the next 12 months?", from interviews conducted by Banco de México between January 6 and January 30, 2020.

Regarding sales prices of own goods and services, most business agents interviewed in different regions anticipate similar or lower annual changes than those observed in the previous 12 months.

Business Agents' Expectations: Annual Change of Sales Prices, Next 12 Months 1/

Percentage of responses

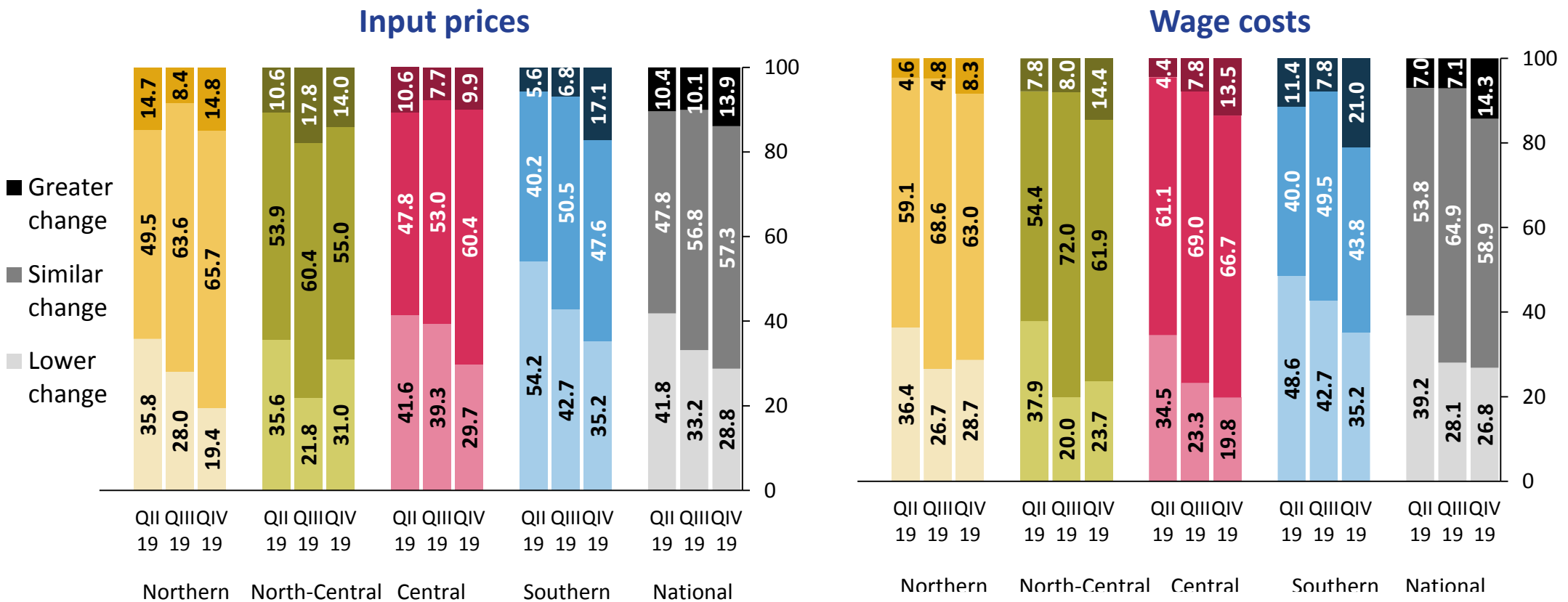


1/ Results obtained from responses to the question: "With respect to the previous 12 months, how do you expect sales prices in your sector to change for the next 12 months?", from interviews conducted by Banco de México. Figures for Q4 2019 were obtained from data collected between January 6 and January 30, 2020.

Similarly, most business agents interviewed in all regions expect input prices and wage costs to grow at a similar or lower growth rates than those registered in the previous 12 months.

Business Agents' Expectations: Annual Change of Input Prices and Wage Costs, Next 12 Months [1/]

Percentage of responses



1/ Results obtained from responses to the question: "With respect to the previous 12 months, how do you anticipate the change in input prices (goods and services) used in your sector to be for the next 12 months?", and "With respect to the previous 12 months, how do you anticipate the change in wages of workers in your sector to be in the next 12 months?", from interviews conducted by Banco de México. Figures for Q4 2019 were obtained from data collected between January 6 and January 30, 2020.

Outline

I. Regional Economic Report

II. Results October – December 2019

A. Economic activity

B. Inflation

C. Economic outlook

(based on data obtained between January 6 and January 30, 2020)

III. Final remarks

Final remarks

1. The moderate downside trajectory of economic activity, which persisted in Q4 2019, reflected the **weakness of the Northern and Central regions**. In contrast, the **Southern region is estimated to show a second consecutive expansion**, albeit starting from low levels.

2. Annual headline inflation in different regions **decreased** in Q4 2019 with respect to Q3 2019, although it rebounded in early 2020.

3. Interviewed business agents highlighted the following risks:

   - ✓ *To the upside: i) that private investment levels are higher than expected, and ii) that public investment in infrastructure is revamped.*
   - ✓ *To the downside: i) that public insecurity levels increase; ii) that the environment of domestic uncertainty persists, and iii) that public spending is lower than expected.*

4. In all regions, it is key to take actions that:

   - ✓ *Promote an environment of confidence and certainty.*
   - ✓ *Strengthen the institutional framework, the rule of law and public safety.*



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