

Regional Economic Report
April – June 2020

BANCO DE MÉXICO

Outline

I. Regional Economic Report

II. Results April – June 2020

A. Economic activity

B. Inflation

C. Economic outlook

(based on data collected between June 22 and July 16, 2020)

III. Final remarks

Regional Economic Report

- The Regional Economic Report is a quarterly publication on the 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 and inflation in the regions in Q2 2020, and the prospects of surveyed business agents between June 22 and July 16 for regional economic activity over the following 12 months are analyzed herein.

Outline

I. Regional Economic Report

II. **Results April – June 2020**

   A. **Economic activity**

   B. Inflation

   C. Economic outlook

      (based on data collected between June 22 and July 16, 2020)

III. Final remarks

Regional Economic Activity

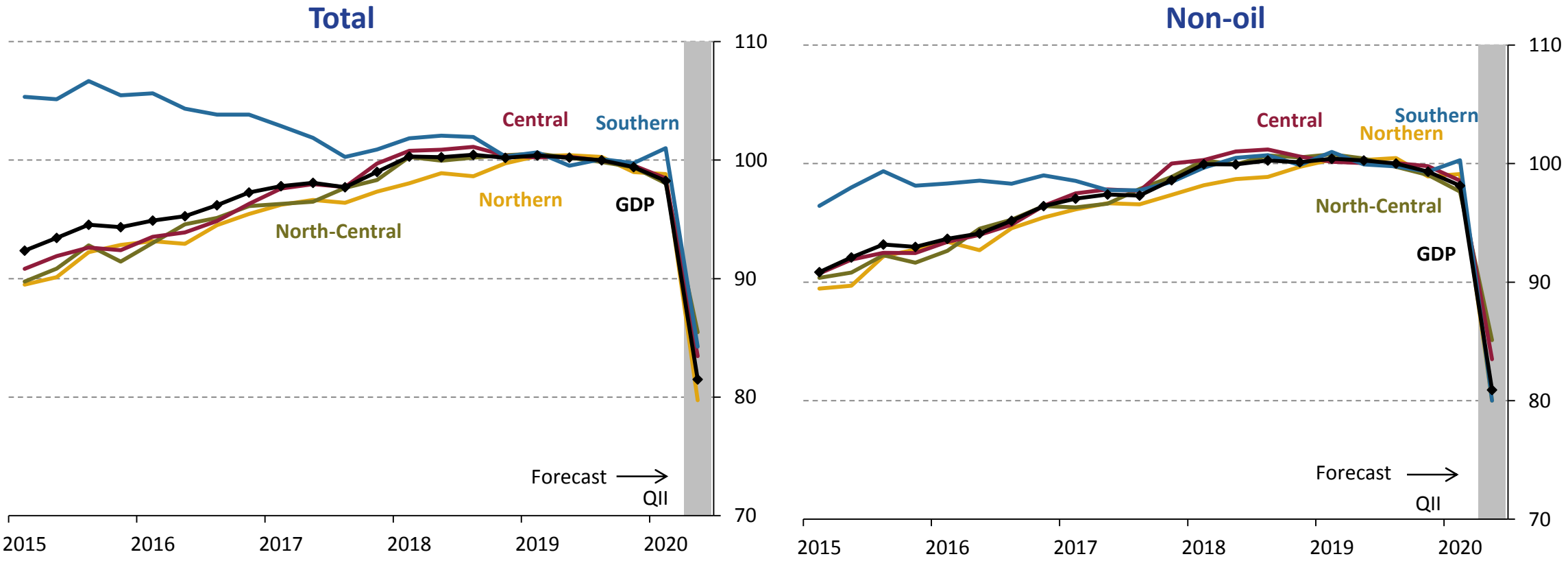
- During Q2 2020, the effects on economic activity caused by the COVID-19 pandemic and the actions implemented to contain it intensified considerably. These events affected negatively economic activity both on the supply side, given the restrictions on production in various sectors classified by the authorities as non-essential, and, on the demand side, given the lockdown and social distancing measures, in addition to the marked weakness of the global economy.

- The fall in domestic economic activity during Q2 2020 responded to a significant decrease in production across all regions. A widespread decline in trade, construction, manufacturing, mining and tourism across regions is expected to have contributed to this outcome.

In Q2 2020, economic activity in all regions is estimated to have contracted, as a result of the impact of the COVID-19 pandemic and the measures implemented to contain it.

Quarterly Indicator of Regional Economic Activity 1/

Index 2019=100, s. a.



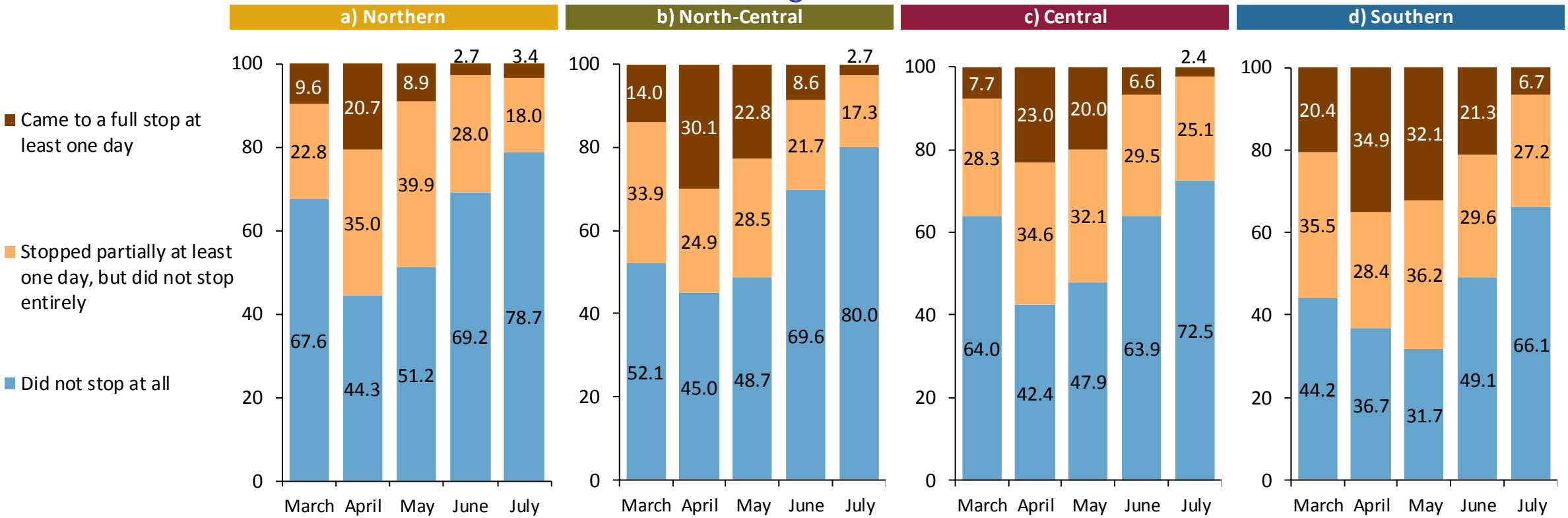
s. a. / Seasonally adjusted data.

1/ The value of Gross Domestic Product (GDP) for Q2 2020 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).

In all regions, the effects of the pandemic and the measures adopted to contain it have implied that most firms stopped their activities entirely or partially between March and May.

Suspension of the Production Process as a result of the COVID-19 Pandemic
March-July 2020
Percentage of firms

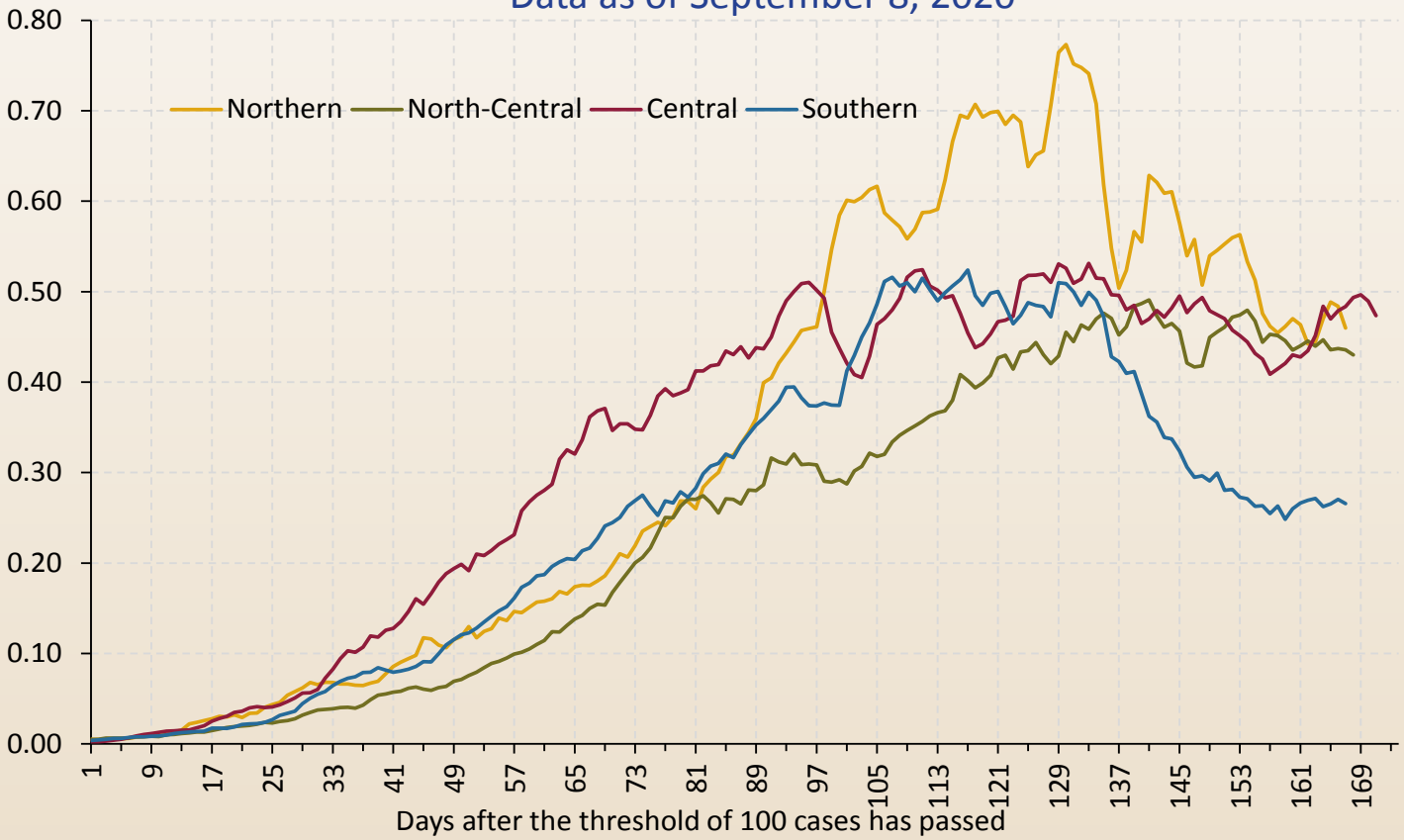


Source: Prepared by Banco de México with data from the Monthly Survey of Regional Economic Activity, based on data collected between in the periods from April 1 to April 29, 2020, from May 4 to May 28, 2020, from June 1 to June 29, 2020, from July 1 to July 31,2020, and from August 3 to August 28, 2020. The results obtained correspond to the question: "Due to the contingency caused by the COVID-19 spread, indicate if the production process in your firm stopped partially or entirely, exclusively due to this factor".

Spread of COVID-19 in Mexican Regions

7-day Moving Average of Number of New Cases by 10,000 Inhabitants 1/

Data as of September 8, 2020



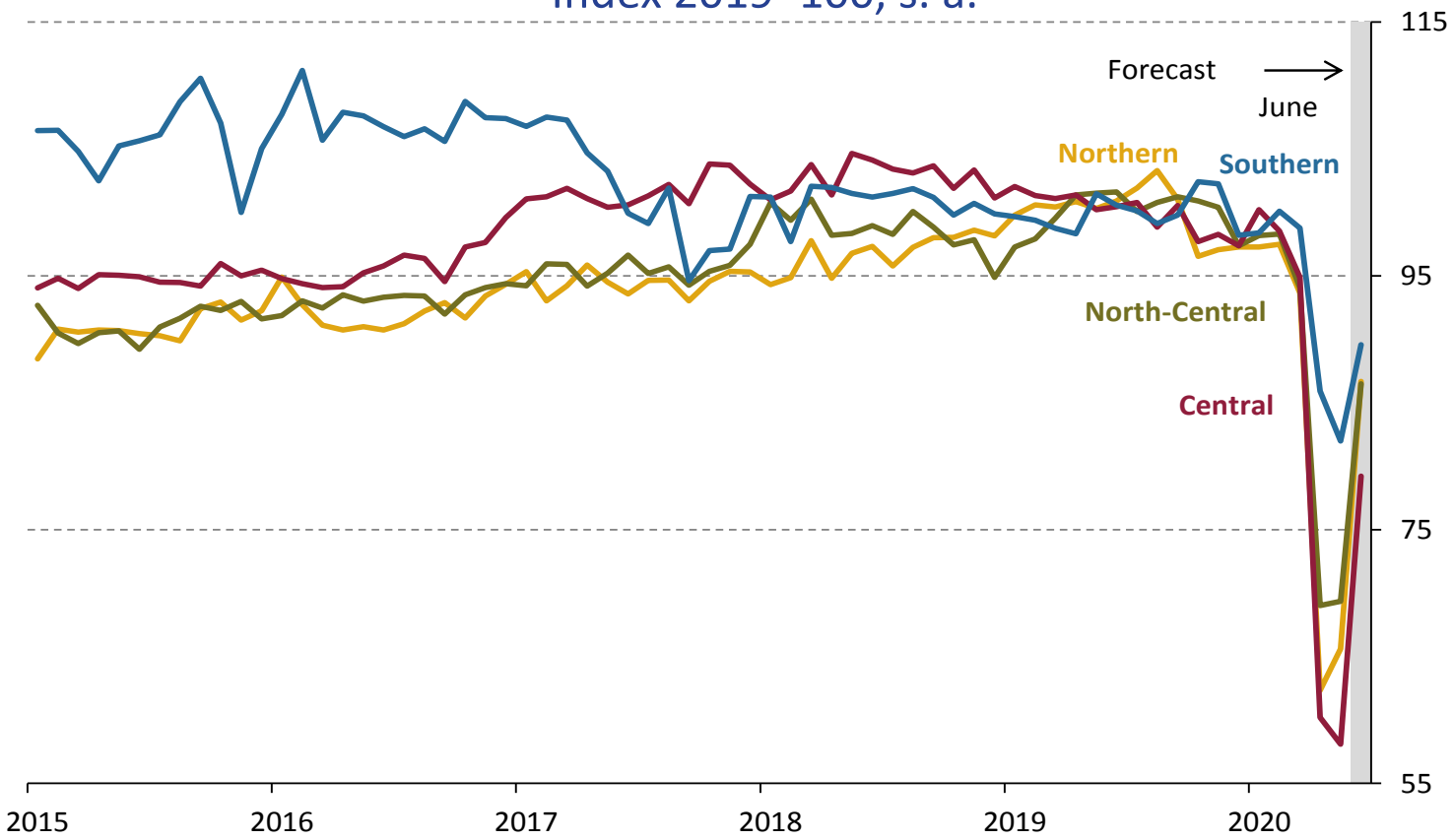
1/ The horizontal axis represents the number of days since 100 cases were detected, that is, day 0 is the day in which the number is higher than or equal to 100 in each region. Considering that each region registered said level on different dates, the length of the plotted series varies.

Source: Prepared by Banco de México with data from the Mexico's Secretariat of Health and CONAPO population projections for 2020.

For Q2 2020 as a whole, a significant contraction in manufacturing production is anticipated, especially in the Northern and Central regions.

Regional Manufacturing Indicator

Index 2019=100, s. a.

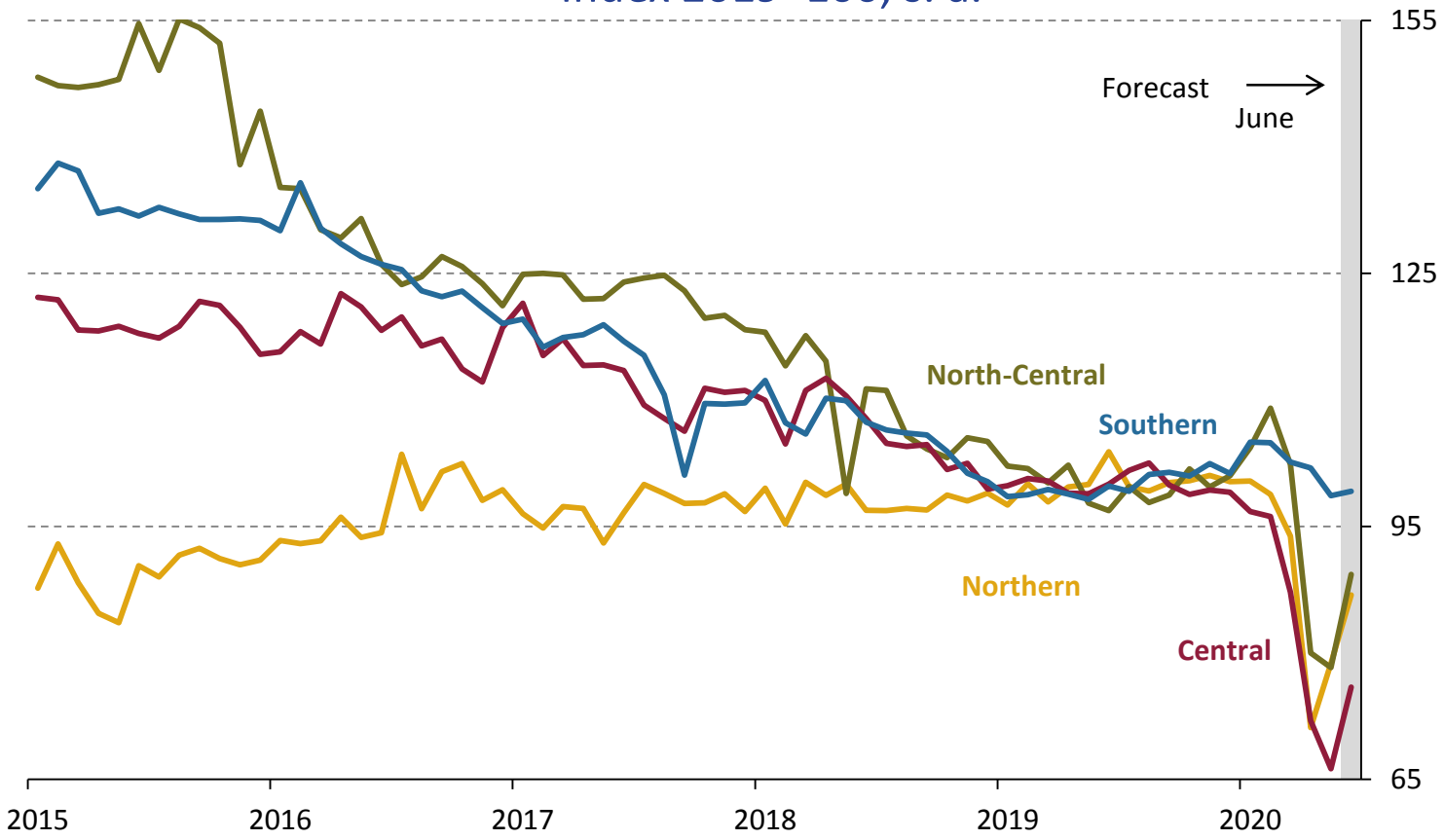


s. a. / Seasonally adjusted data.
Source: Estimated by Banco de México with seasonally adjusted series of the Monthly Indicator of Manufacturing Activity by state(INEGI).

In the April-June quarter, mining declined significantly in the Northern and Central regions, and more moderately in the South, given that in the latter oil mining prevails, an activity that was declared as essential since the beginning of the health emergency.

Regional Indicator of Mining, Quarrying, and Oil and Gas Extraction

Index 2019=100, s. a.

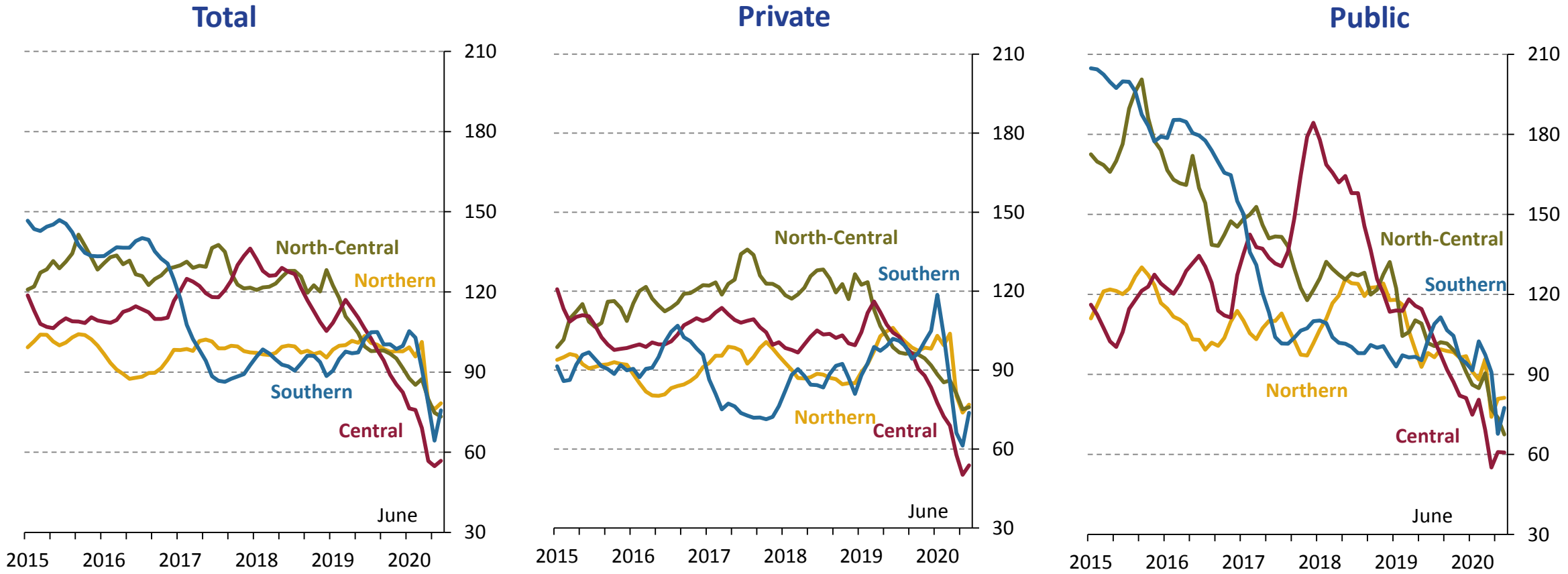


s. a. / Seasonally adjusted data.
Source: Estimated and seasonally adjusted by Banco de México with the series of the Monthly Indicator of Mining Activity by state (INEGI).

Construction contracted significantly in all regions in April, followed by further, more moderate contraction, in May. In June, after having gradually reactivated, it recovered slightly in all regions, except for the North-Central one.

Real Value of Production in the Construction Industry by Region

Index 2019=100, s. a. 3-month moving average except for 2020



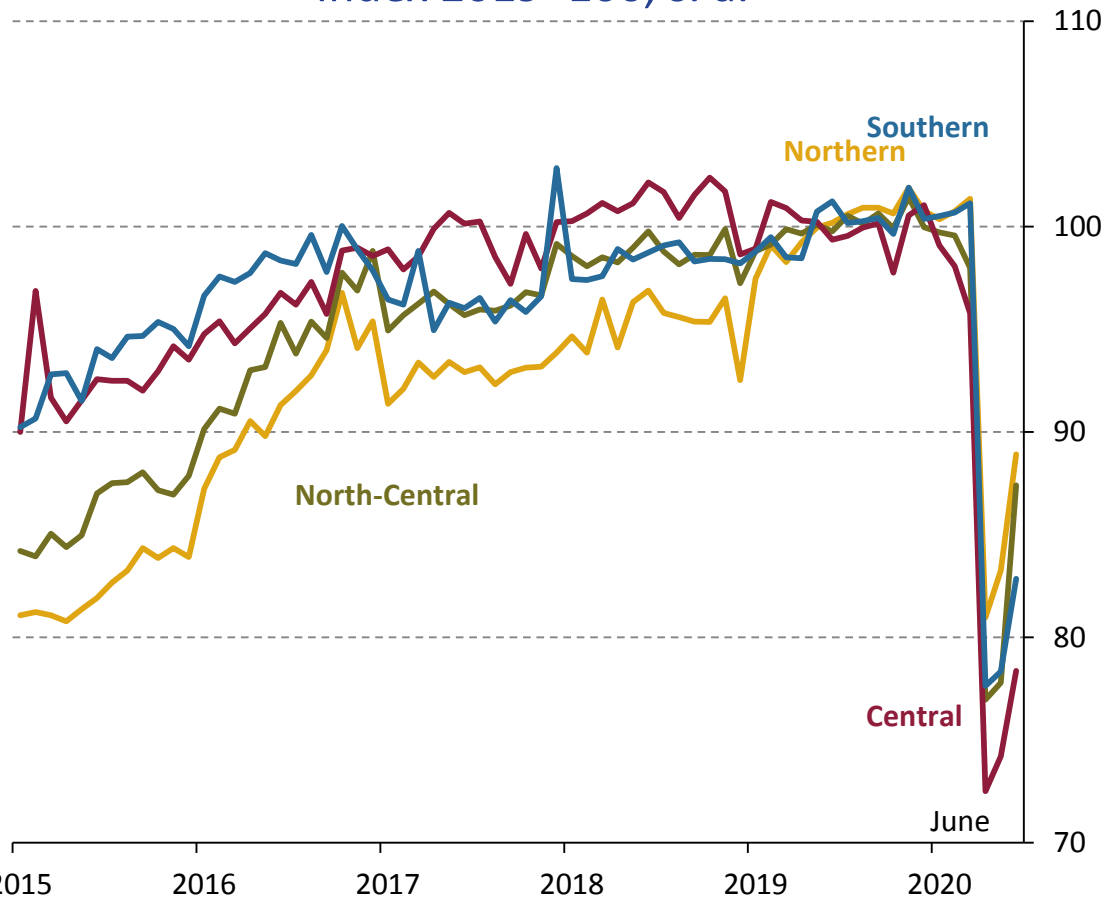
s . a. / Seasonally adjusted figures.

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

Retail trade contracted sharply across all Mexican regions. Subsequently, in May, and, to a larger extent, in June, this indicator recovered moderately. The impact on retail sales has been greater in those states where the population has observed stricter social distancing measures.

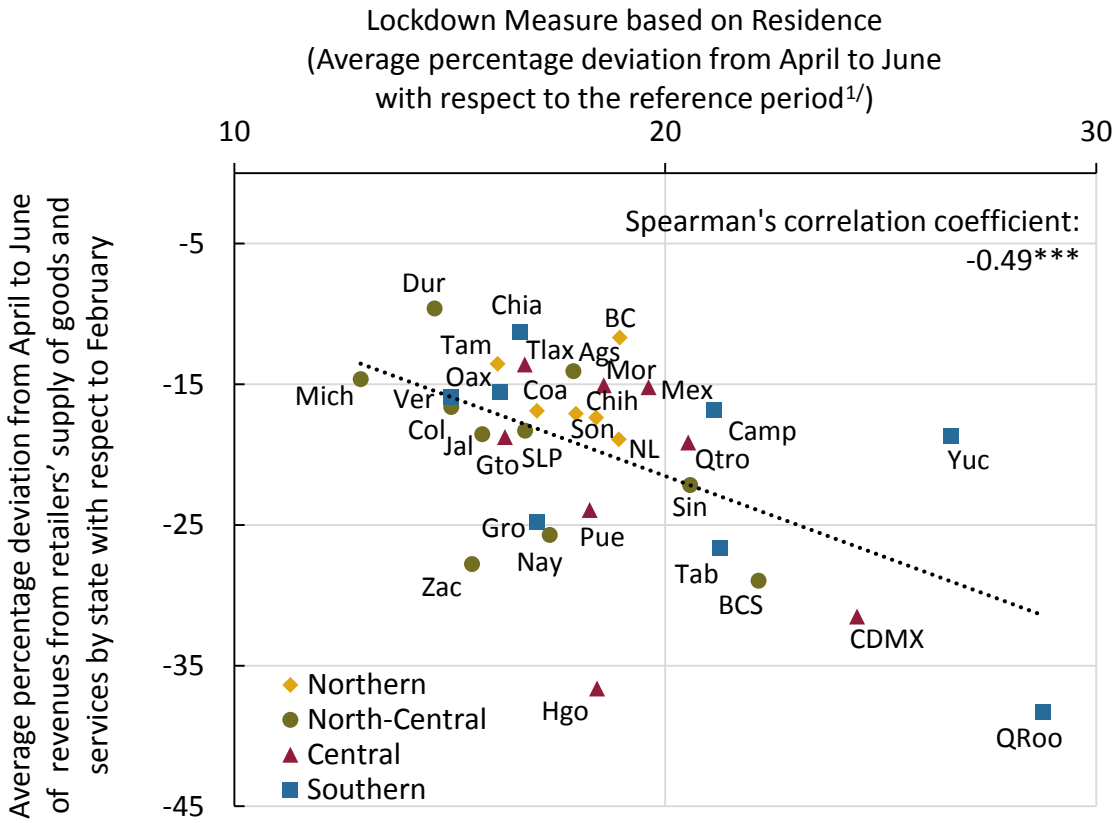
Regional Retail Trade Indicator

Index 2019=100, 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).

Social Distancing and Trade in Mexican States during the Pandemic

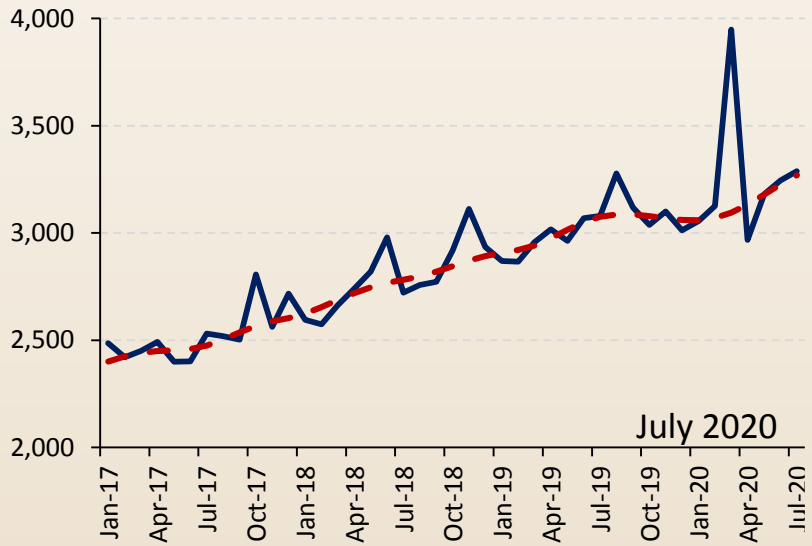


***,**,* indicate statistical significance at 1%, 5% and 10%, respectively.
1/ The reference period covers from January 3 to February 6, 2020.
Note: If Quintana Roo is excluded, which is the entity with the highest level of lockdown and effects on economic activity, Spearman's coefficient is -0.44**.
Source: Prepared by Banco de México with data from INEGI and the Global Mobility Report by Google.

Remittances in Mexican States in the Context of the COVID-19 Pandemic

Total Remittances Received in Mexico from the United States

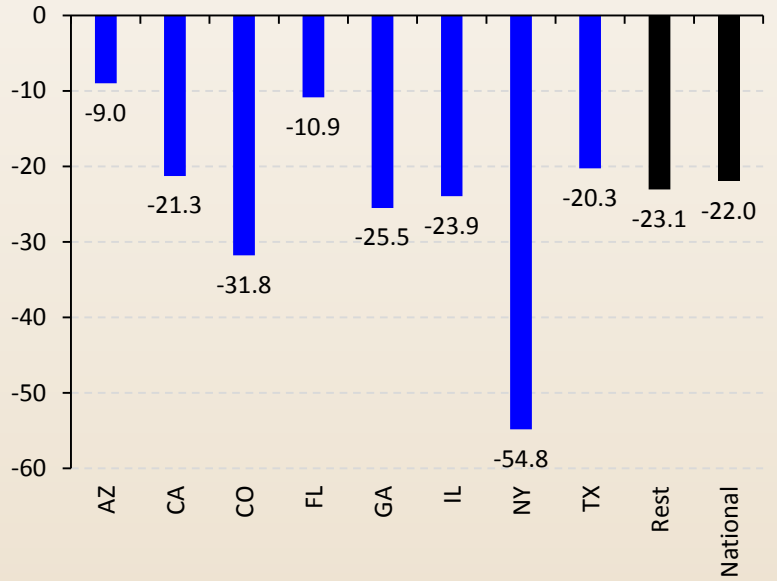
Monthly flows in USD millions, s. a.



s.a./ Seasonally adjusted series and trend series. The former is presented with a solid line, and the latter with a dotted line.
Source: Banco de México.

Employment of Mexican Immigrants in the United States

Annual percentage change Q2 2020 vs. Q2 2019

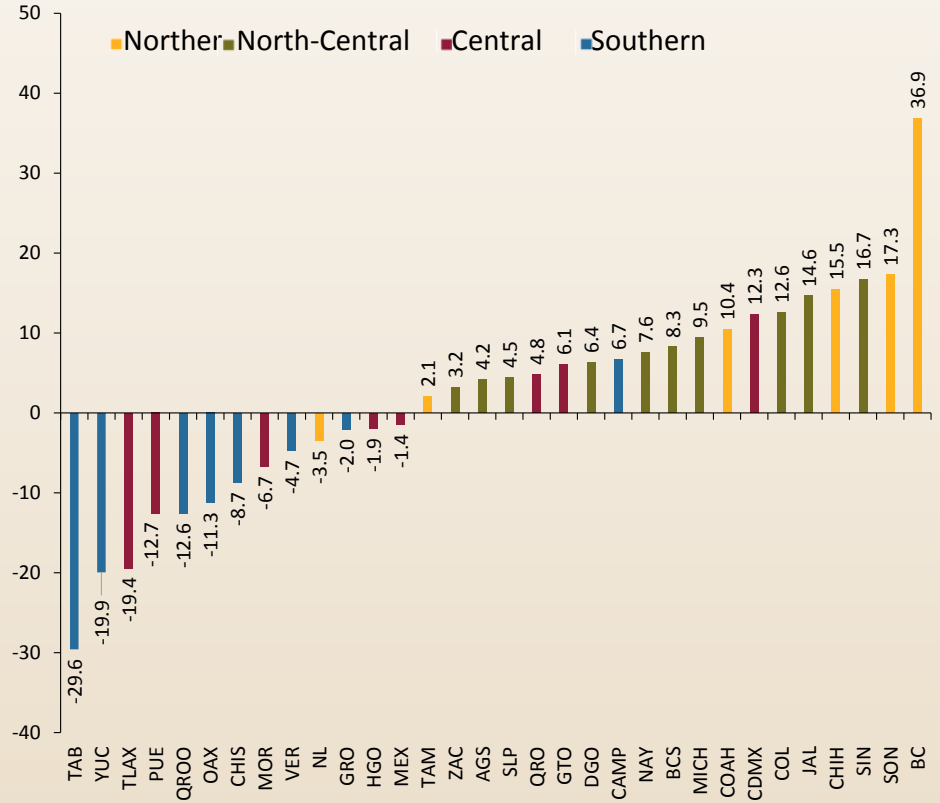


Note: For the purposes of this chart, Mexican immigrant workers in the U.S. are included in the group of people born in Mexico and which state having migrated to the U.S.
Source: Prepared by Banco de México with data from the US Department of Labor.

Remittances in Mexican States in the Context of the COVID-19 Pandemic

Remittances to Mexico from the U.S., by State

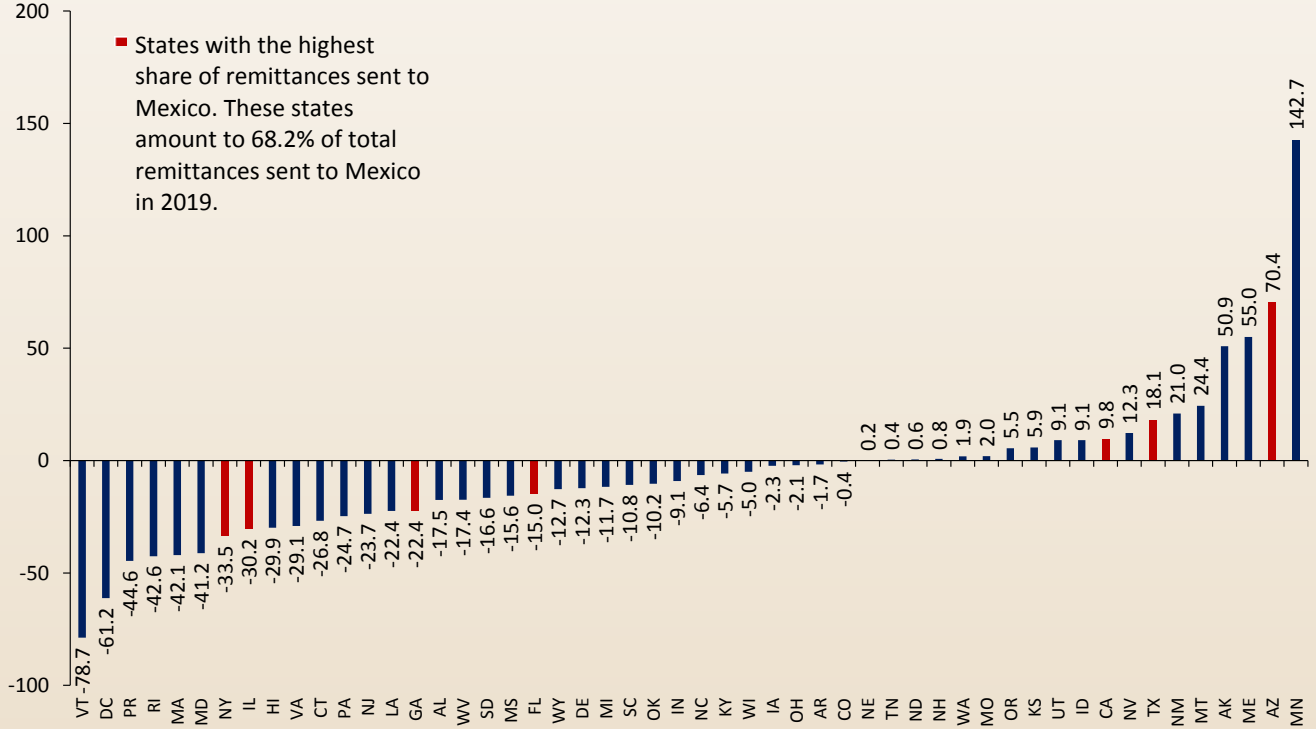
Annual percentage change Q2 2020 vs. Q2 2019



Source: Banco de México.

Remittances Sent to Mexico from the U.S., by State[1/]

Annual percentage change Q2 2020 vs. Q2 2019



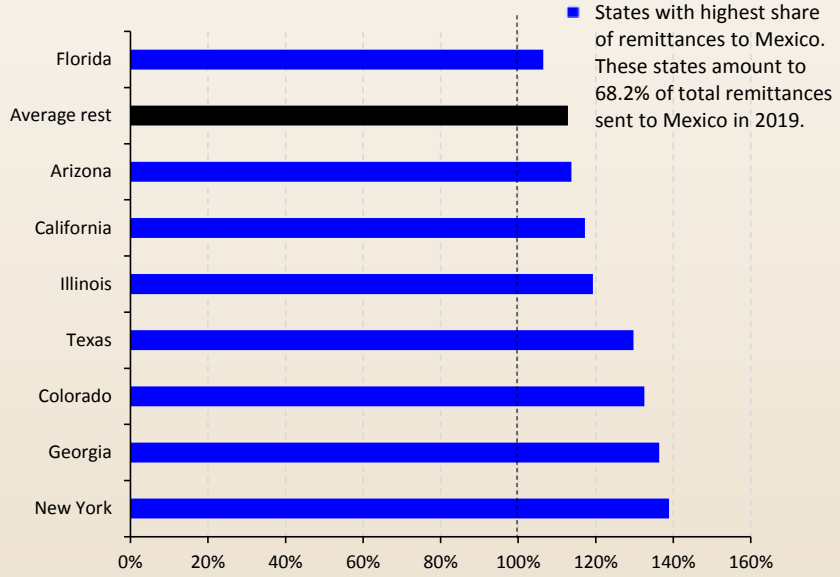
1/ Colorado is one of the eight states with the highest share, but its red bar is not distinguished since its annual change in remittances sent to Mexico is very close to zero.

Source: Banco de México.

Remittances in Mexican States in the Context of the COVID-19 Pandemic

Unemployment Insurance Benefits in the U.S. in the Context of the COVID-19 Pandemic

As a share of the average wage of a Mexican worker in the U.S.

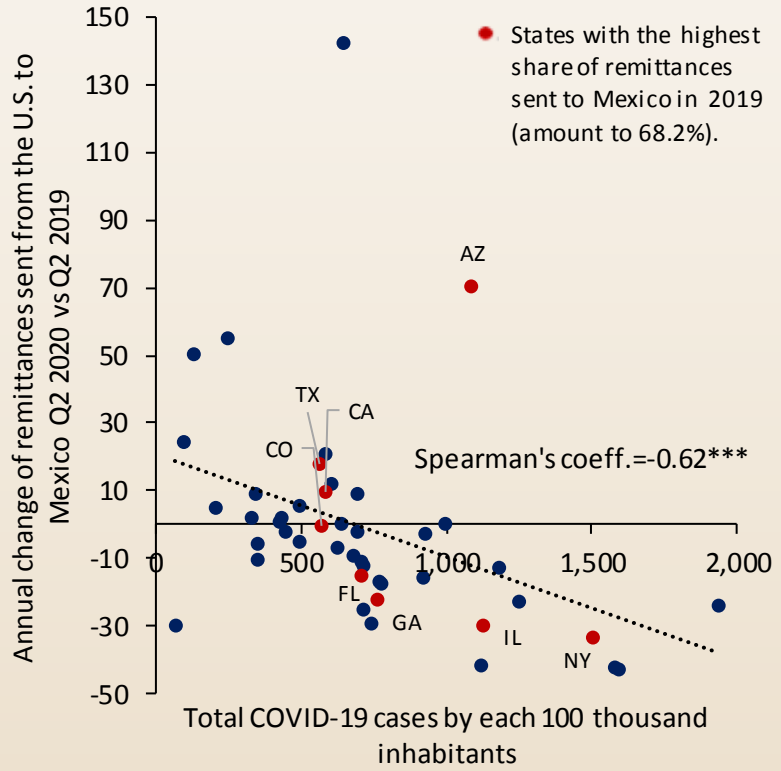


Note: Average profit is calculated as the average of the minimum and maximum profit of the Individual State Unemployment Insurance, plus the federal weekly support of 600 USD. The average weekly wage for 2019 of the Annual Social and Economic Supplement (ASEC) of the US Current Population Survey is used.

Source: Prepared by Banco de México with data from the Annual Social and Economic Supplement (ASEC) 2019 of the US Current Population Survey and Coronavirus Aid, Relief, and Economic Security (CARES) Act 2020.

Remittances and COVID-19 Cases in the U.S.

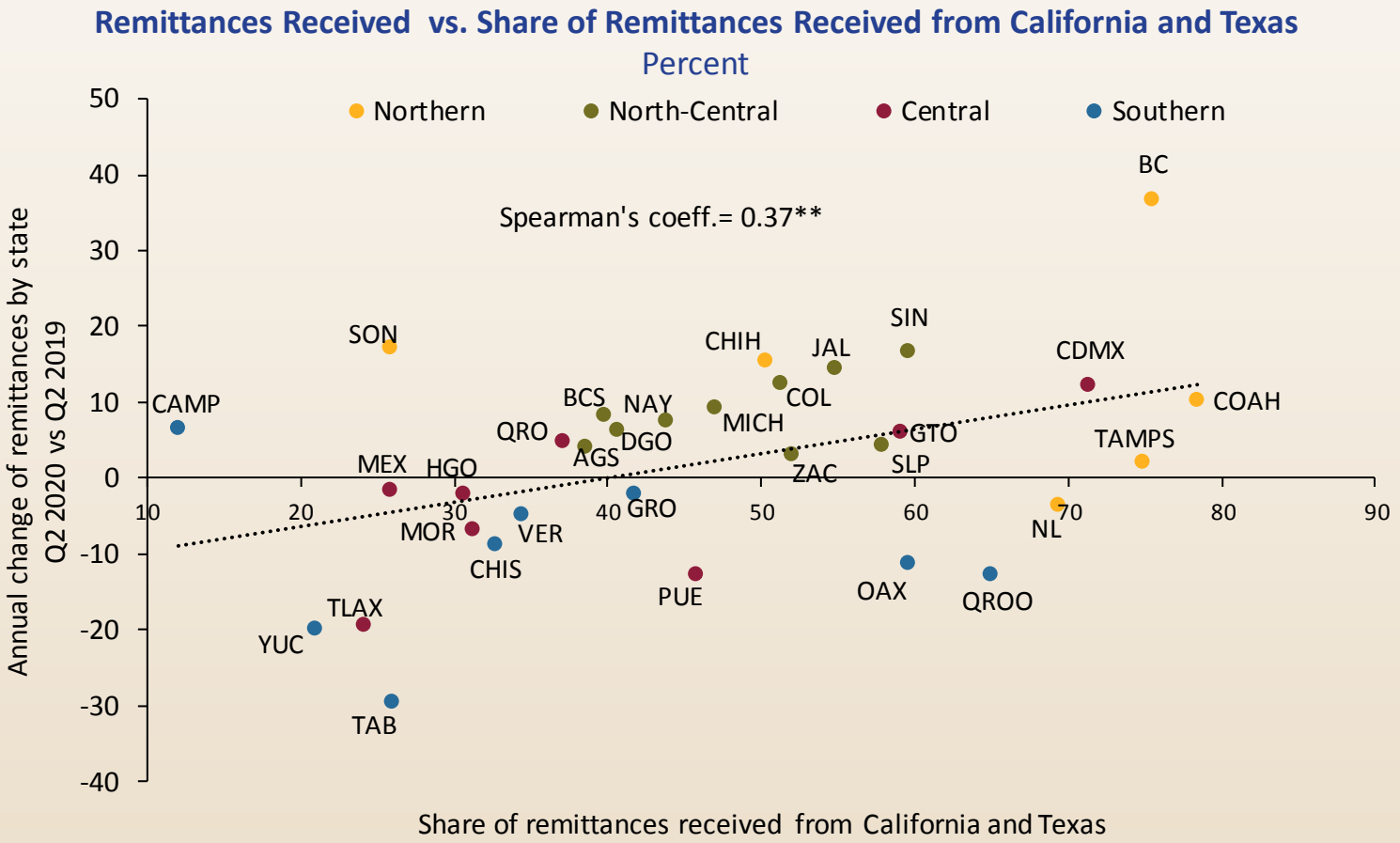
Percent



Note: *** Denotes statistical significance at 1%. To estimate the rate of cases, the number of accumulated cases of COVID-19 as of June 2020 in each US state was divided by total population of that state and multiplied by 100 thousand.

Source: Prepared with data from the Johns Hopkins University and Banco de México.

Remittances in Mexican States in the Context of the COVID-19 Pandemic



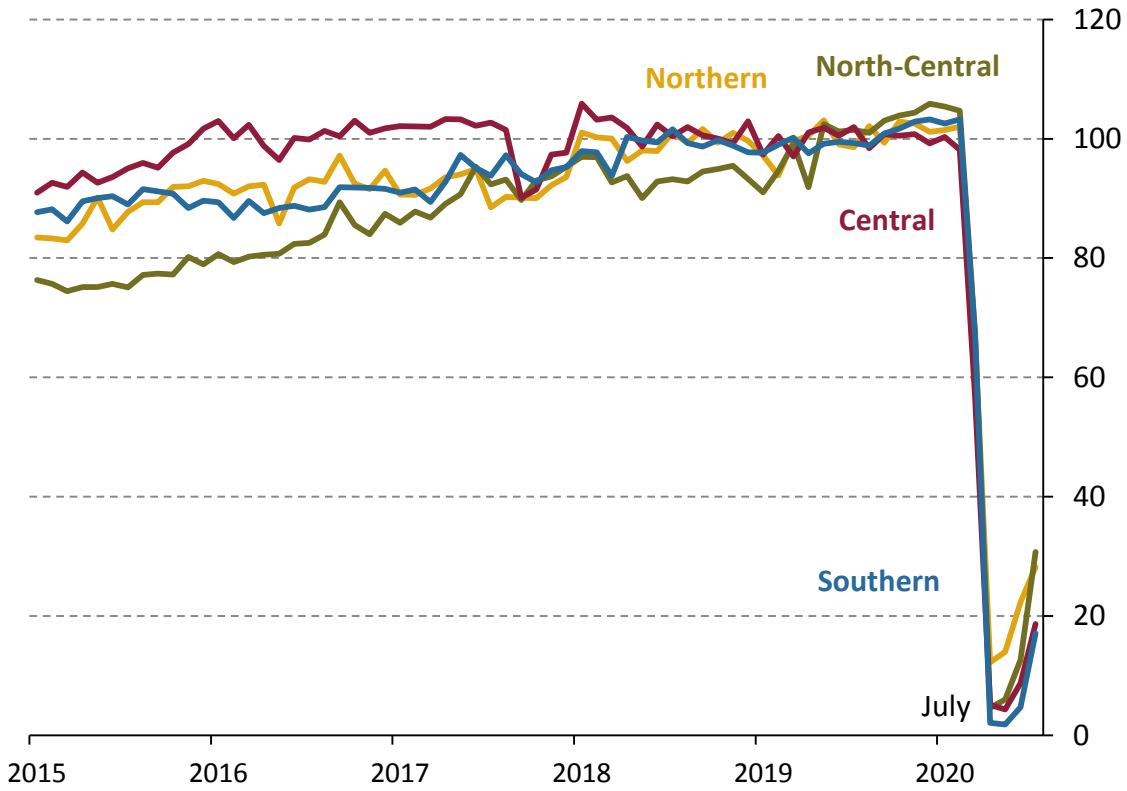
Note: ** Denotes statistical significance at 5%.
Source: Prepared with data from ENADID 2018 and Banco de México.

In April 2020, tourism fell sharply in all regions of Mexico. Subsequently, after the reactivation of economic activity, the indicators showed an incipient progress starting from June, although levels remain low.

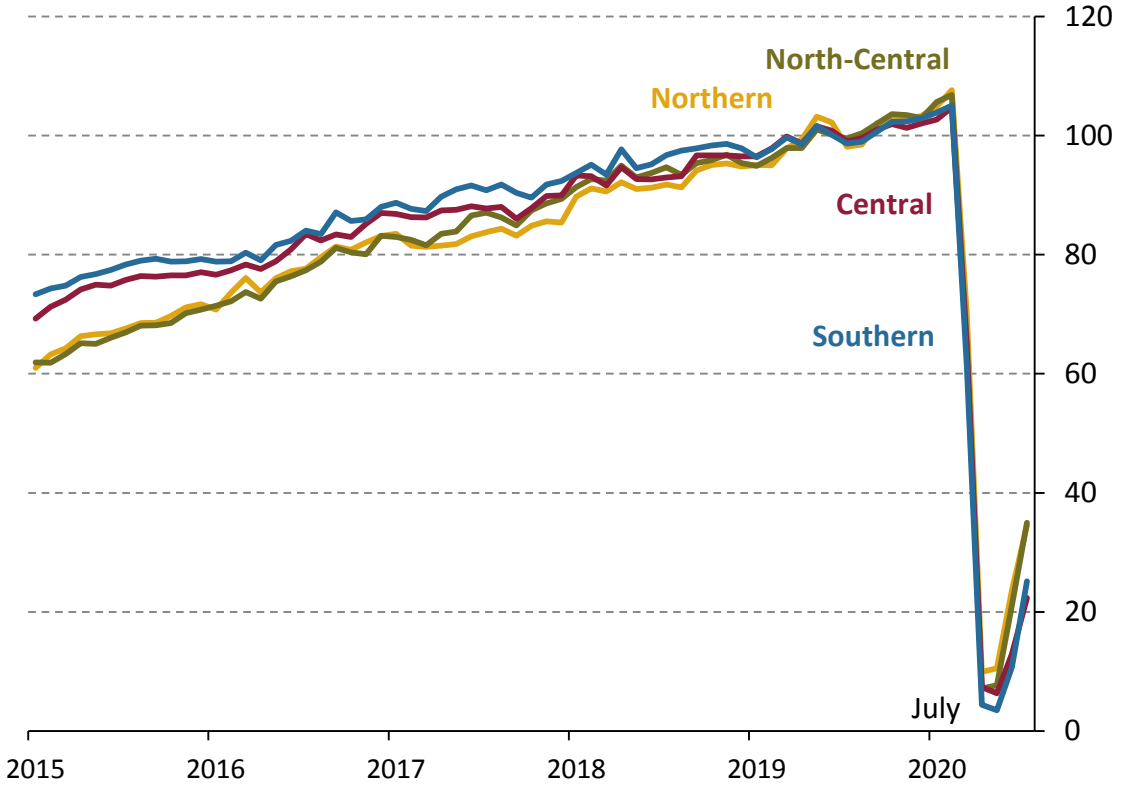
Regional Indicators of Tourism

Index 2019=100, s. a.

Hotel Occupancy



Inflow of Passengers to Airports

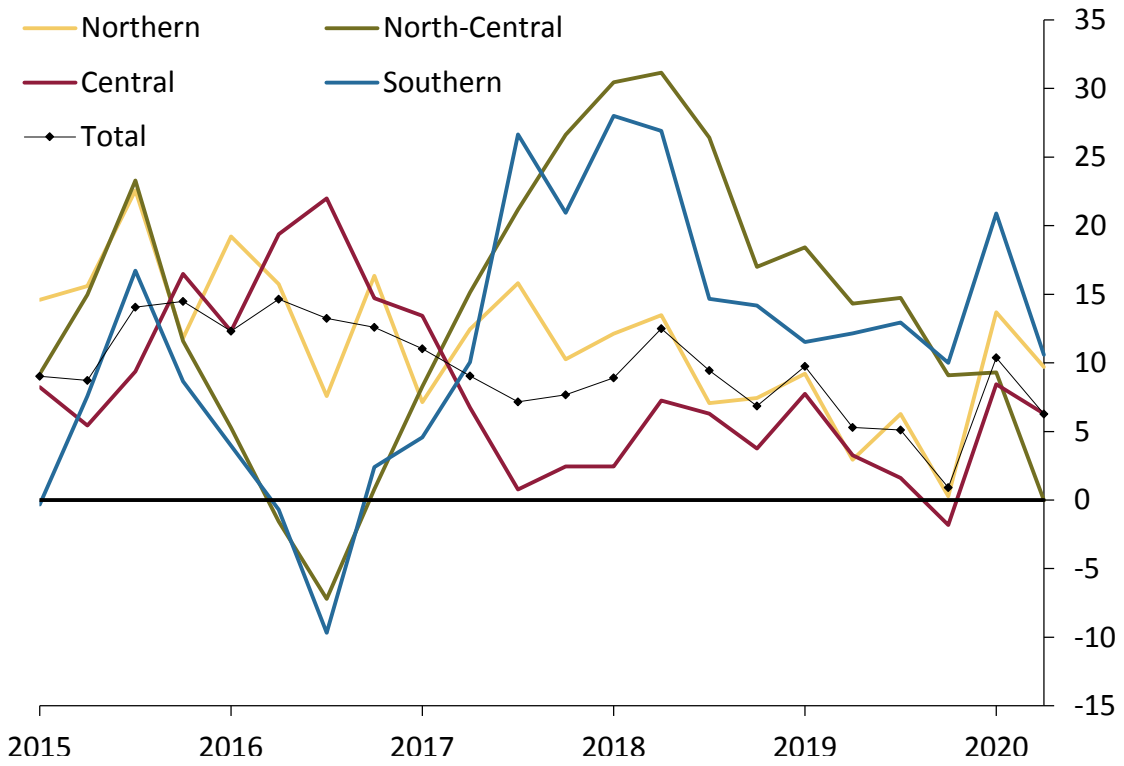


s . a. / Seasonally adjusted figures.

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).

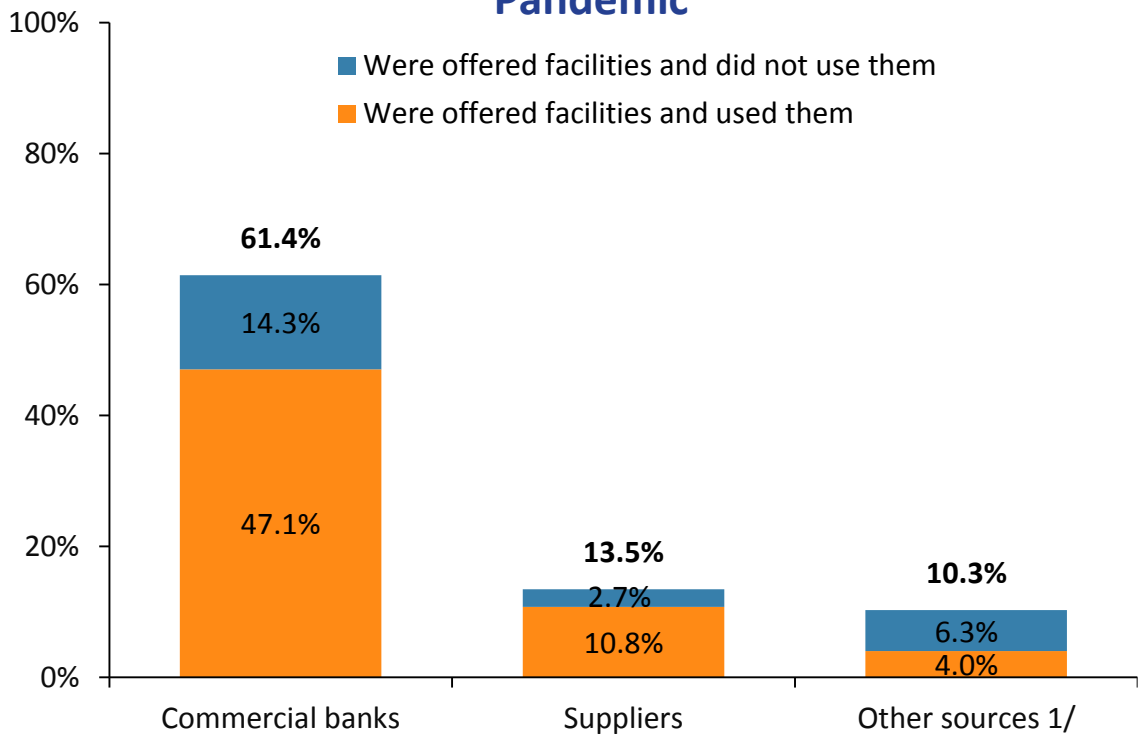
Commercial banks' performing credit to non-financial private firms decreased its annual growth rate in all regions in Q2 2020. 61.4% of said firms reported that commercial banks had offered them some type of credit facility to comply with their financial commitments.

Commercial Banks' Performing Credit to Non-financial Private Firms 1/



1/ Excludes regulated sofomes subsidiaries of banking institutions and financial groups. The estimate of the real anual change excludes the effect of exchange rate fluctiations.
Source: Banco de México.

Use of Credit Payment Facilities among Firms that had Some Type of Credit Taken Out prior to the Pandemic

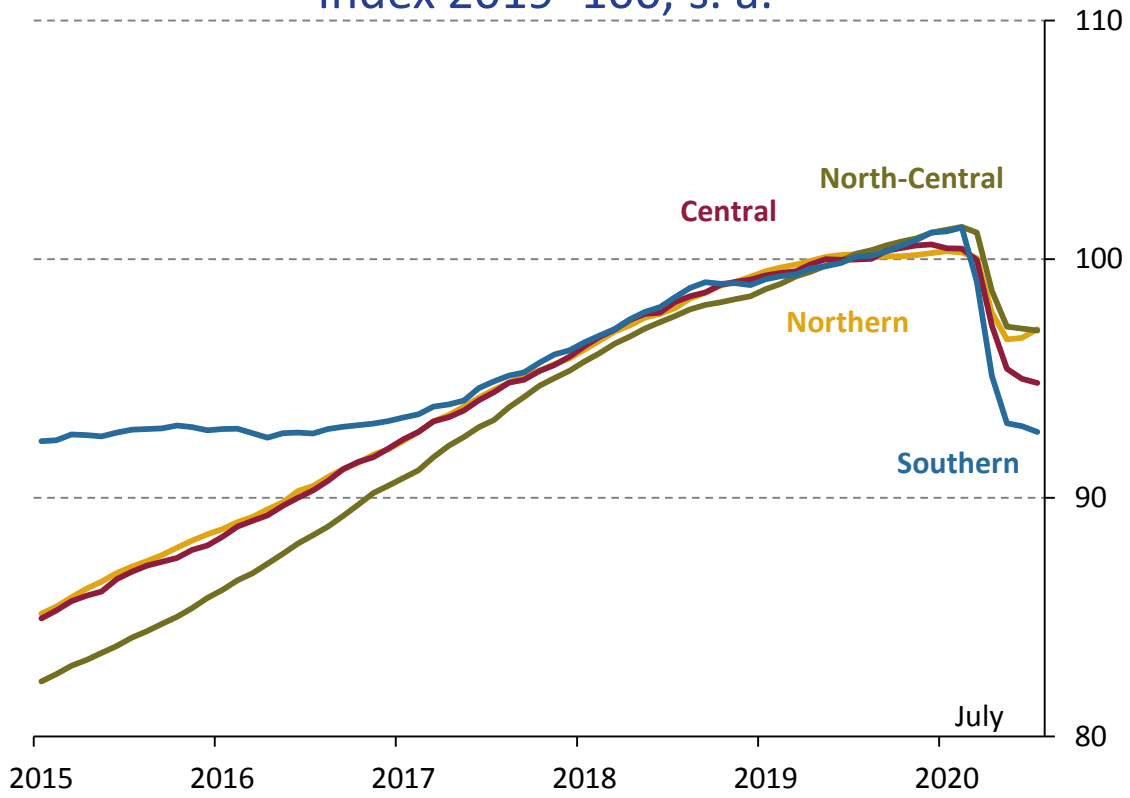


1/ Other sources include Federal government programs, State or municipal government programs, development banks (Nafin, FIRA, Bancomext, SHF, among others), and others.
Source: Prepared by Banco de México with data obtained from responses to the question: "Did the firm had credits taken out prior to the COVID-19 pandemic?" and "As a consequence of the COVID-19 pandemic, did some of the following source(s) of financing grant facilities to pay acquired credits prior to the pandemic (capital and interest deferrals, for example)?" in interviews made by Banco de México between June 22 and July 16, 2020.

In April, the number of IMSS-insured workers fell sharply in all regions. Between May and July, this indicator continued declining, although in a more moderate manner, except for the Northern region, where a slight expansion was registered by the end of the period. In the second quarter, a strong reduction in employment was observed in all Mexican regions.

Number of IMSS-insured Workers

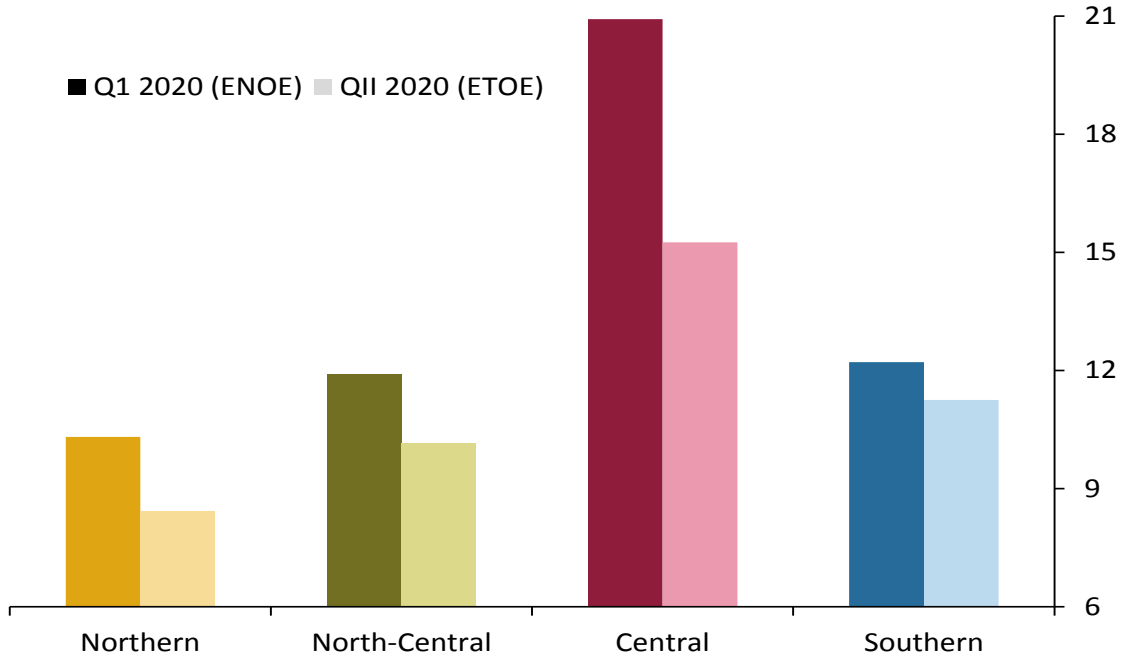
Index 2019=100, s. a. 1/



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

Employed Population

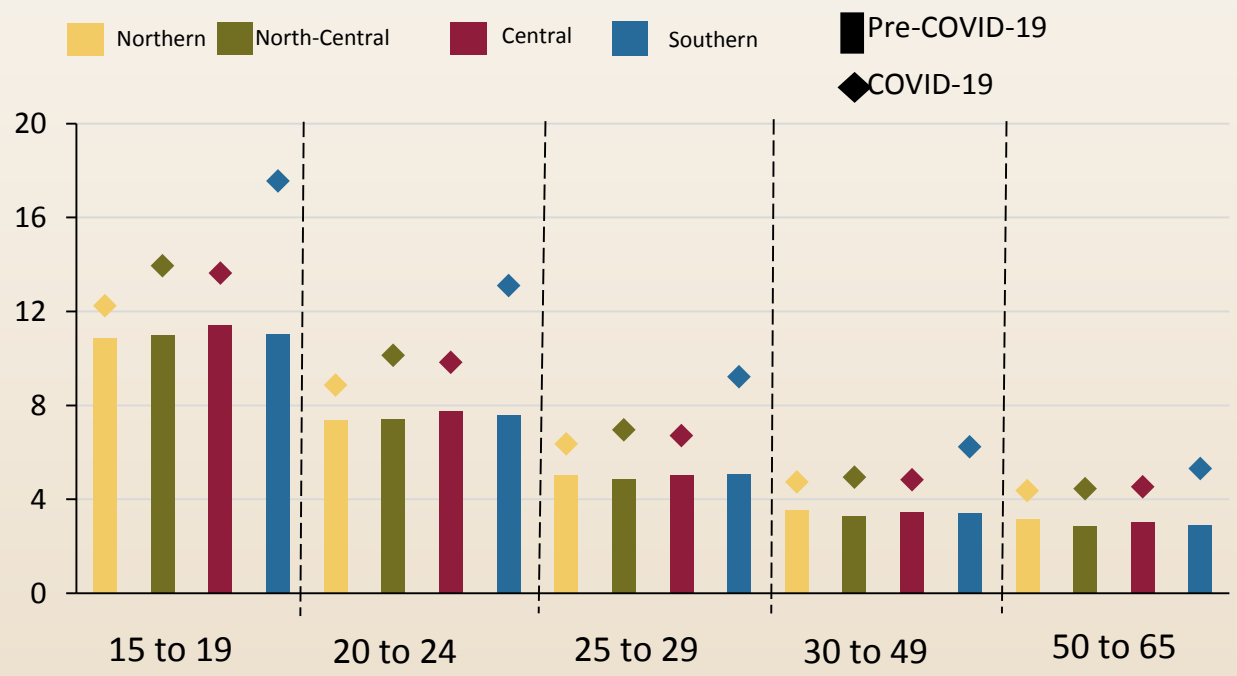
Millions of individuals



Source: Prepared by Banco de México with data from INEGI. Data as of Q1 2020 correspond to the National Survey on Occupation and Employment (ENOE), while data as of Q2 2020 correspond to the Telephone Survey on Occupation and Employment (ETOE). ETOE data are not strictly comparable in its theoretical contextualization with the ENOE design. However, they are an approximation to the indicators traditionally reflected by ENOE, and thus its comparison could be useful as a reference measure.

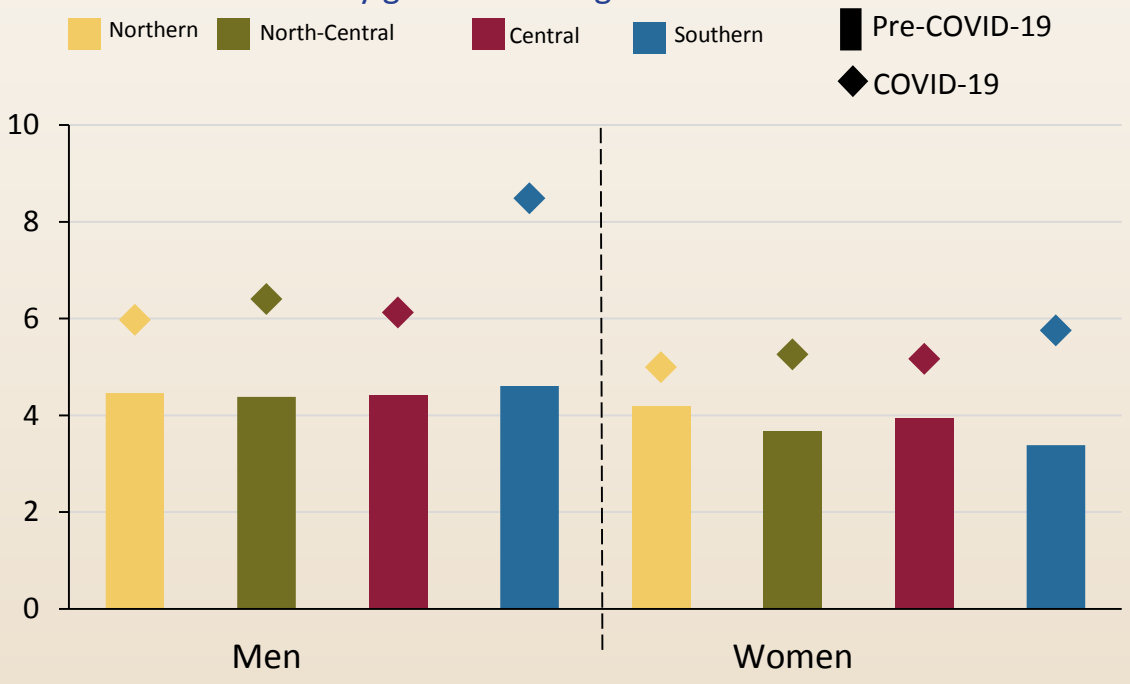
Analysis of the Effects of the COVID-19 Pandemic on IMSS-insured Workers by Age Group and Gender

Probability of Workers Being Separated from their IMSS-Insured Job
Probability in percent
By age group and region



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

Probability of Workers Being Separated from their IMSS-Insured Job
Probability in percent
By gender and region



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

Analysis of the Effects of the COVID-19 Pandemic on IMSS-insured Workers by Age Group and Gender

- A Blinder-Oaxaca decomposition model was estimated:

$$\overline{D}^{G1} - \overline{D}^{G2} = \underbrace{\left|\left(\overline{X}^{G1} - \overline{X}^{G2}\right)\hat{\beta}^{G1}\right|}_{\textit{Composition effect}} + \underbrace{\left|\overline{X}^{G2}\left(\hat{\beta}^{G1} - \hat{\beta}^{G2}\right)\right|}_{\textit{Valuation effect}}$$

Composition effect

The part attributable to differences in the observed characteristics.

Valuation effect

The part is explained by the differences in valuations provided by the market.

Observable characteristics (X)

- Income ranges
- Sectors of economic activity
- Ranges of experience in last employment
- Types of employment (permanent and temporary)
- Gender (men, women)
- Age categories
- State

Main results

- The probability of being separated from an IMSS-insured job increased to a larger extent for workers in the age group of 15 to 19 years old as compared to other age groups in the context of the pandemic, which seems to be explained by these workers having little experience in firms and having low wages.
- Similarly, the elements that contribute to explain the greater increase in the probability of separation from employment in men with respect to women during the pandemic are found to be the sectoral composition and the type of work. This reflects that men work in sectors most affected by the pandemic (such as construction), and that were more exposed to reductions in temporary jobs, for which male population is larger than female population.

Outline

I. Regional Economic Report

II. **Results April – June 2020**

A. Economic activity

B. **Inflation**

C. Economic outlook

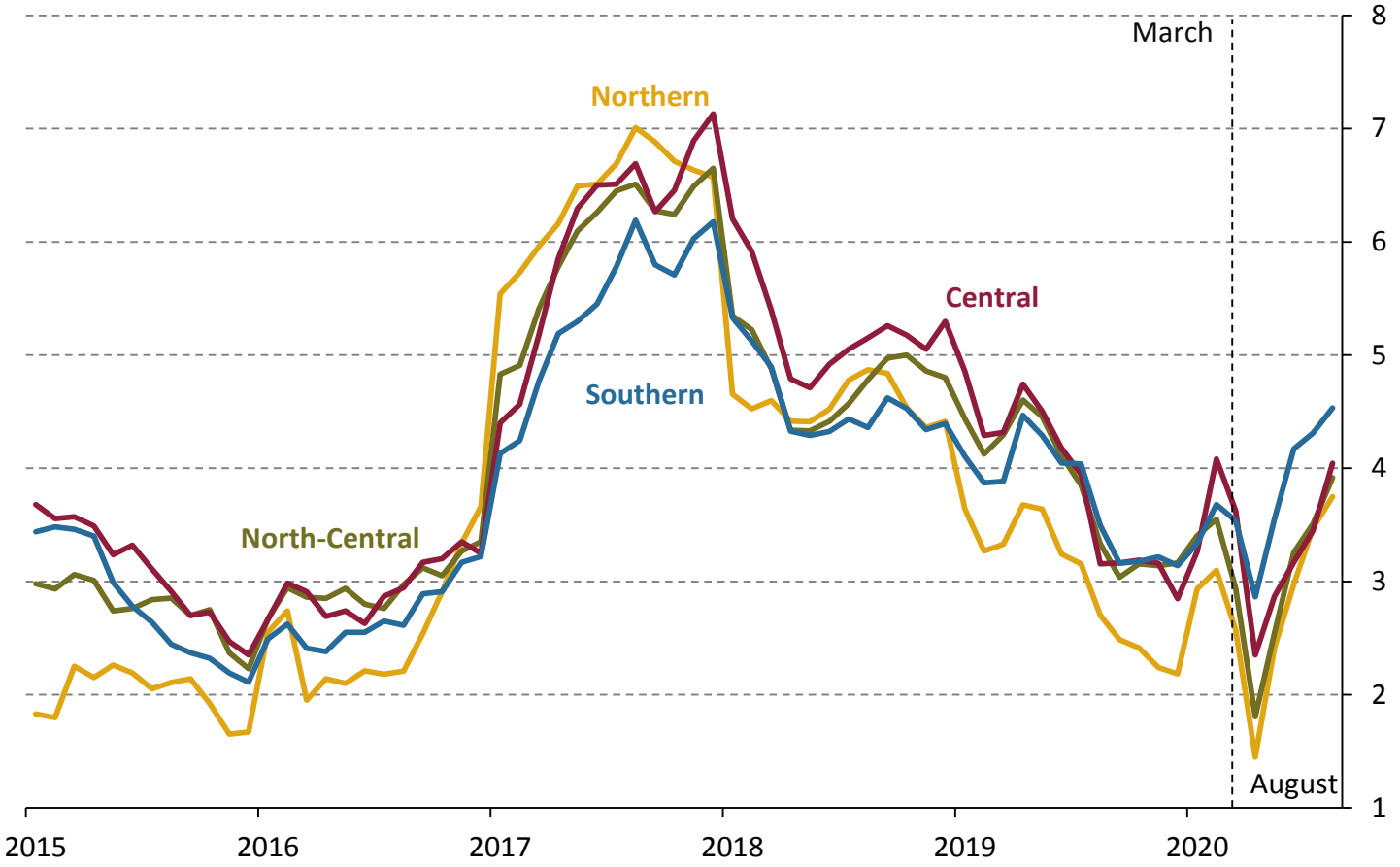
(based on data collected between June 22 and July 16, 2020)

III. Final remarks

At the national and regional levels, inflation has been determined by both upward and downward pressures, as a result of different shocks caused by the COVID-19 pandemic and by the measures adopted to prevent its spread.

Annual Headline Inflation by Region

Data in percent

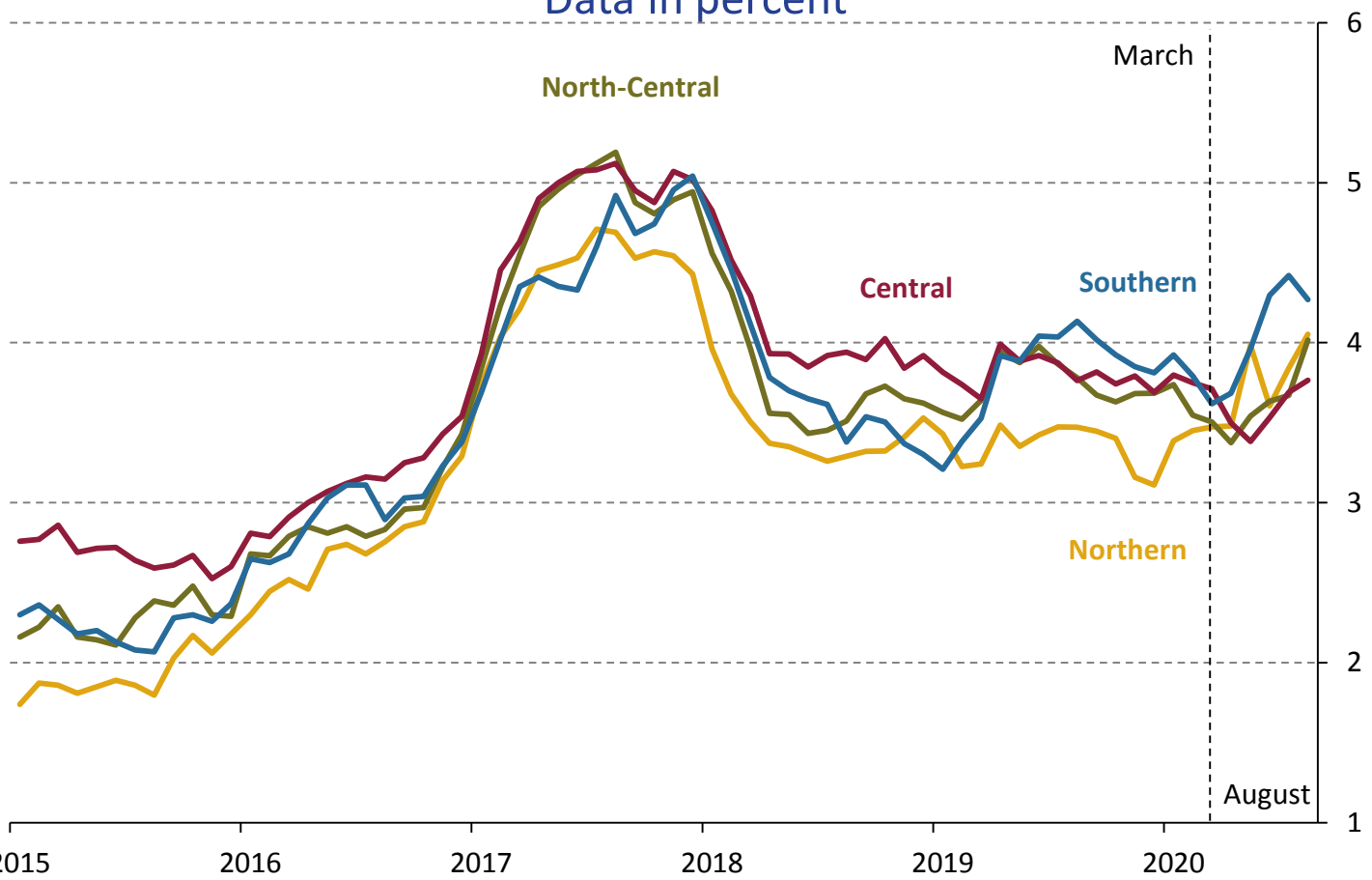


Source: Prepared by Banco de México with data from INEGI and Banco de México.

Affected by different shocks originated by the pandemic, annual core inflation in all regions was characterized by registering an increase throughout the second quarter and a notable recomposition within it, with downward pressures exerted on services inflation and upward pressures on merchandise inflation.

Annual Core Inflation by Region

Data in percent

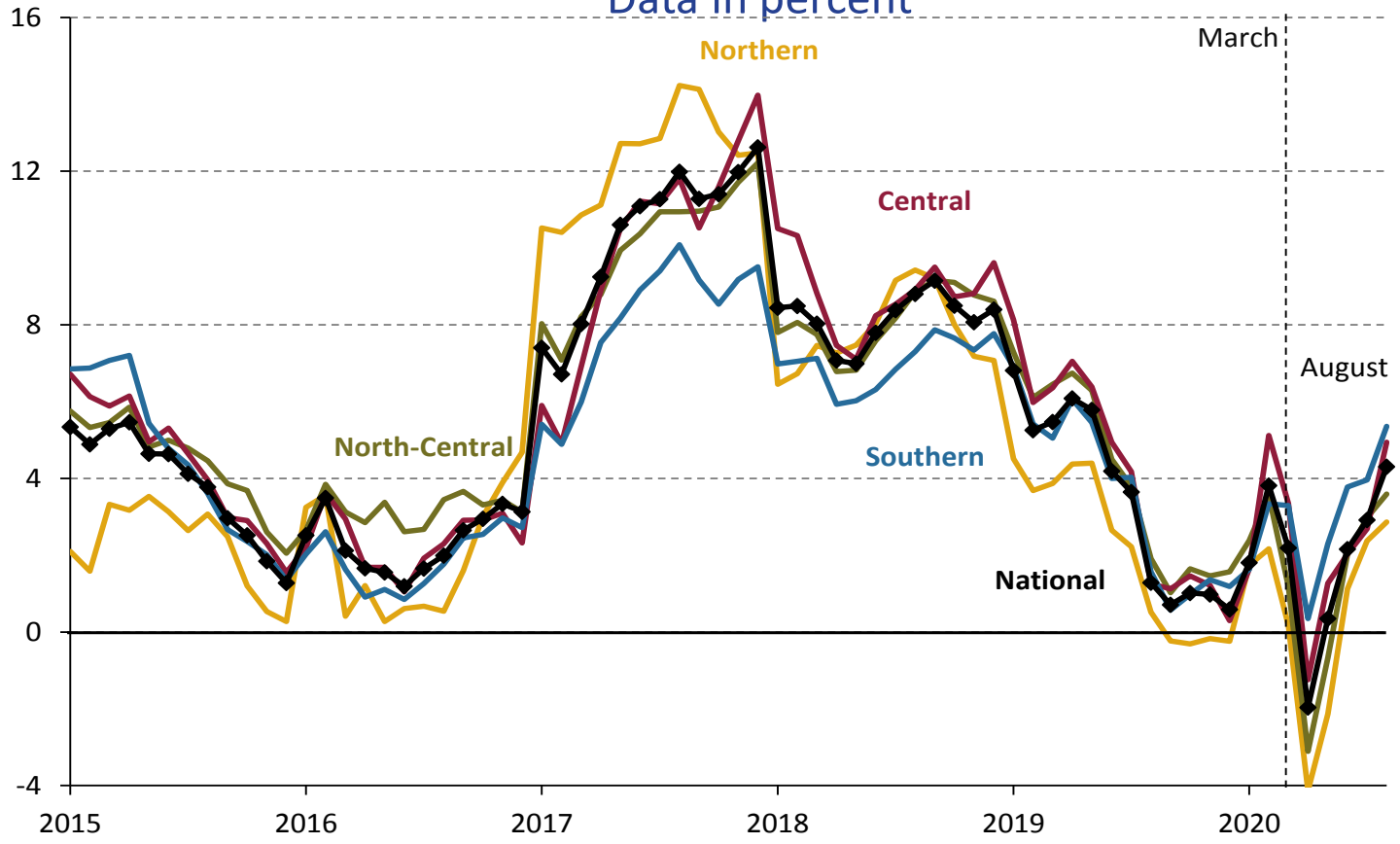


Source: Prepared by Banco de México with data from INEGI and Banco de México.

Non-core inflation in all regions exhibited particularly low levels due to the decline in energy prices, although this was partly offset by increases in agricultural and livestock product prices. However, in subsequent months, non-core inflation in all Mexican regions has been increasing.

Annual Non-core Inflation by Region

Data in percent



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

Outline

I. Regional Economic Report

II. Results April – June 2020

A. Economic activity

B. Inflation

C. Economic outlook

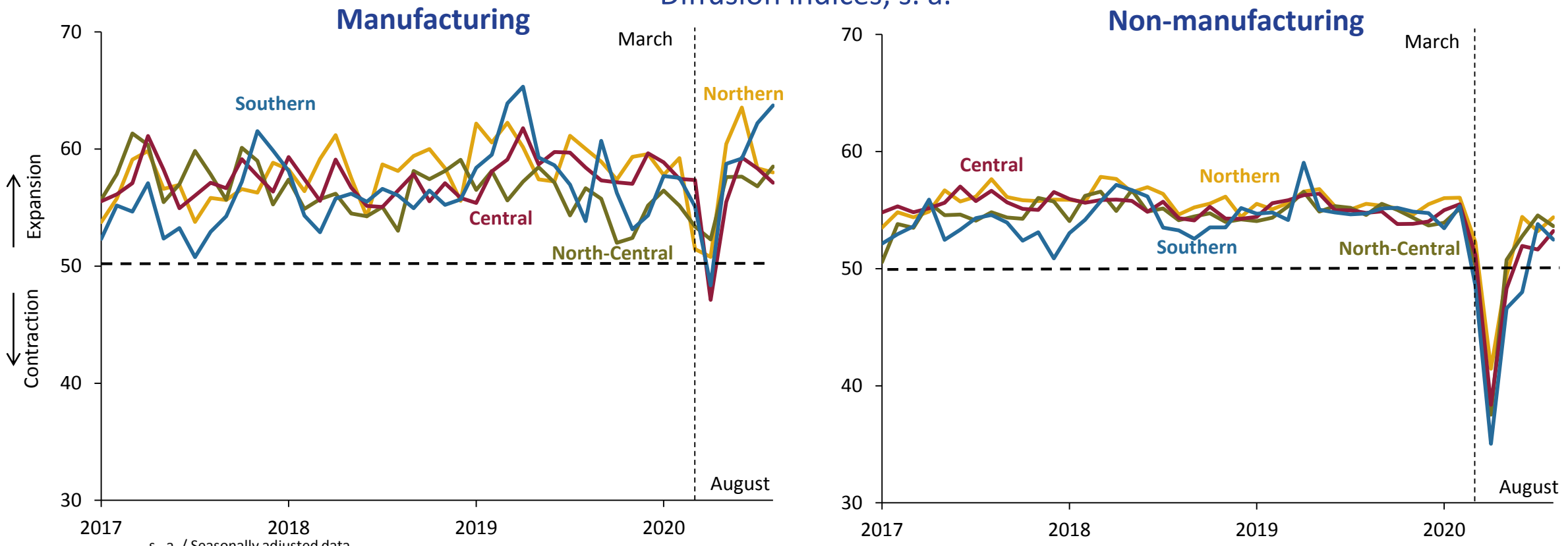
(based on data collected between June 22 and July 16, 2020)

III. Final remarks

After business expectations deteriorated during the March-April period in the context of the COVID-19 pandemic, the evolution of Regional Manufacturing and Non-manufacturing Orders between May and August suggests an improvement in expectations for said sectors for the next 3 months in all Mexican regions.

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

Diffusion indices, s. a.

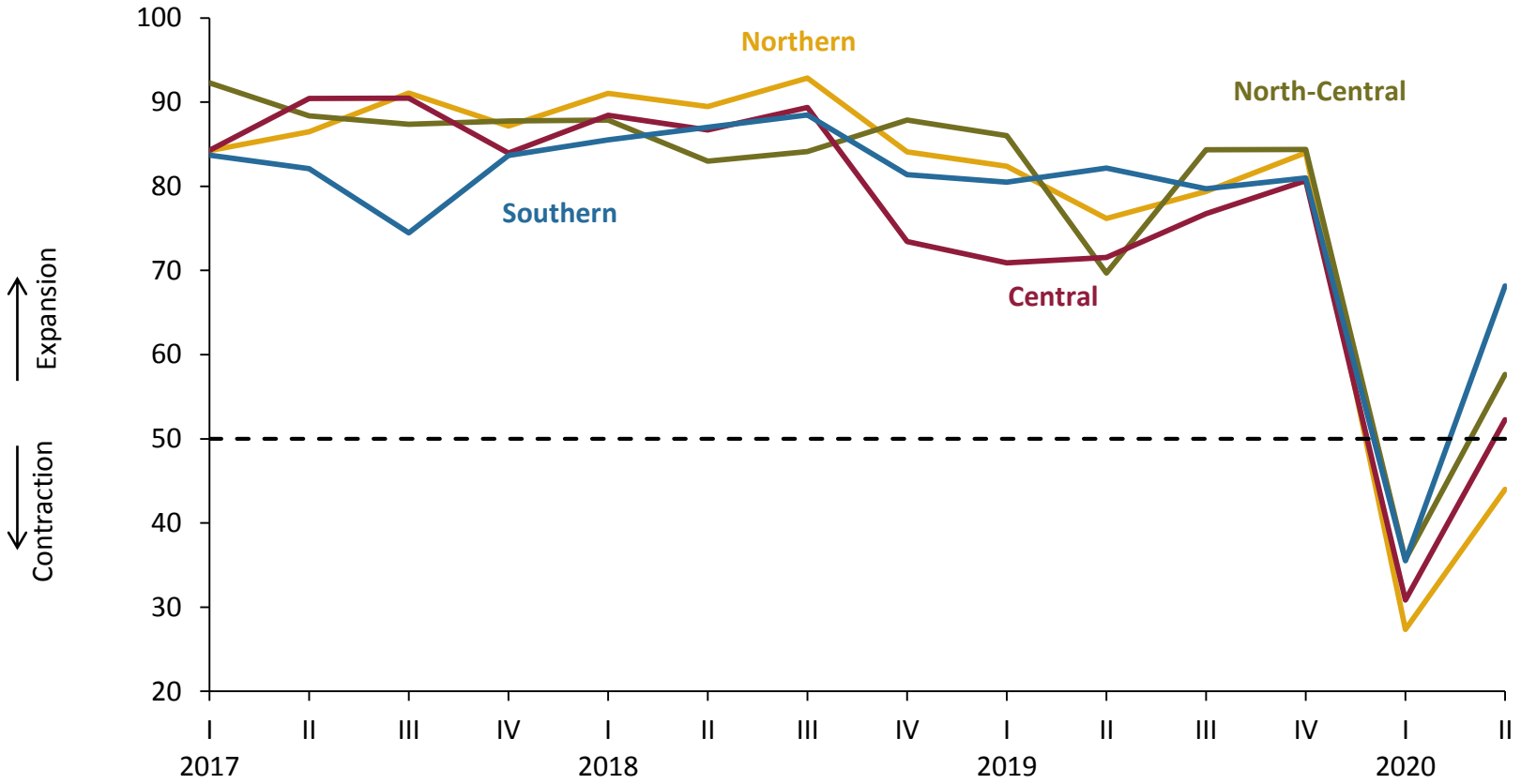


s . a. / Seasonally adjusted data.
Source: Banco de México.

Regarding demand for own goods and services, after a considerable deterioration in expectations over the next 12 months among business agents surveyed between March and April for the previous report, the more recent survey exhibited an improvement in said expectations in all Mexican regions.

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

Diffusion indices

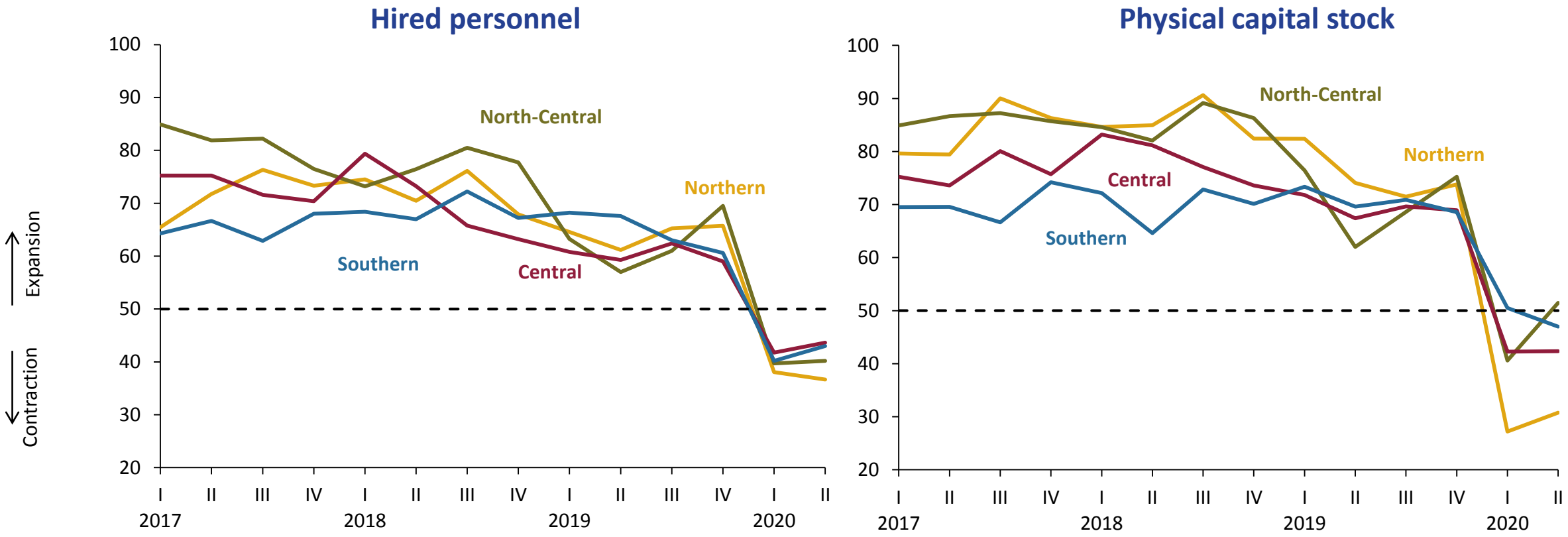


1/ Results obtained from responses to the question: "With respect to the volume of sales of your own goods and services in the previous 12 months, how do you expect your sales volume to change in the next 12 months?" from interviews conducted by Banco de México. Data corresponding to Q2 2020 were obtained from data collected between June 22 and July 16, 2020.

As to the expectations of the number of hired personnel in businesses and investment in fixed assets, in Q2 2020 the indicators remained below 50 points, except for the North-Central region in the case of investment.

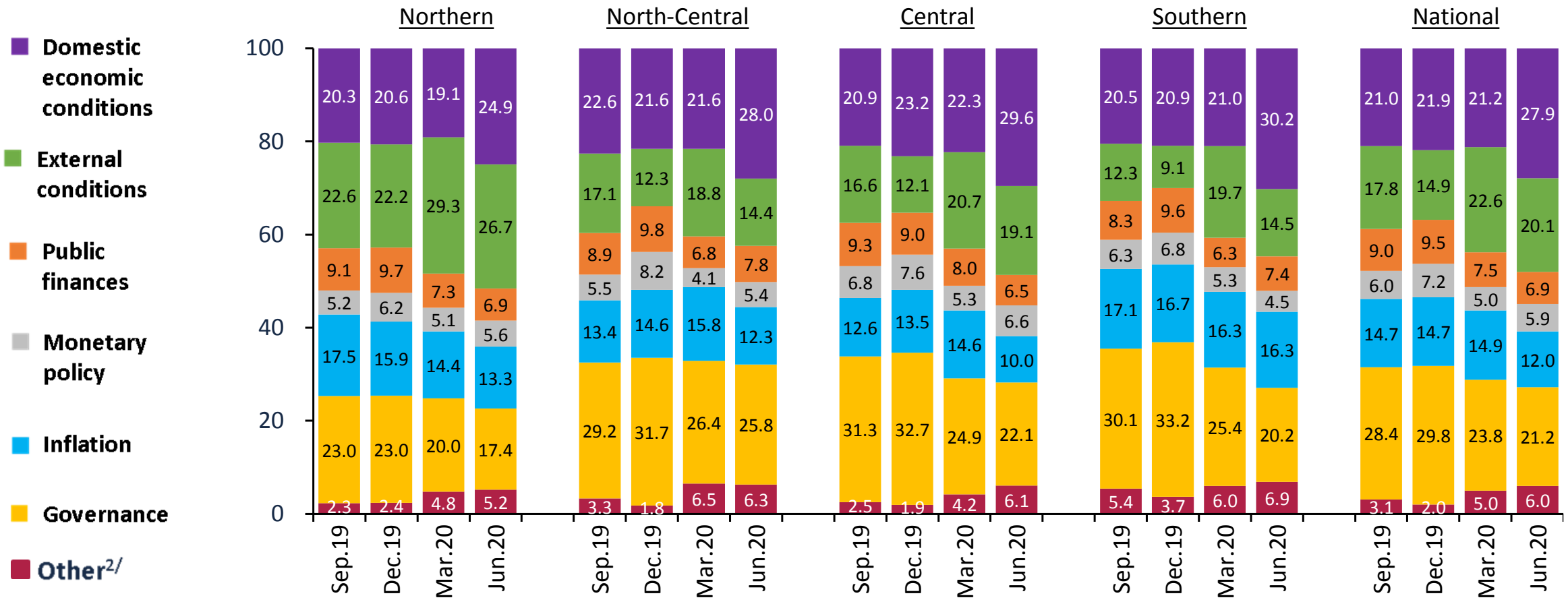
Business Agents' Expectations: Hired Personnel and Physical Capital Stock, Next 12 Months 1/

Percentage of responses



1/ Results obtained from responses to the 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 fi m'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 Q2 2020 were obtained from data collected between June 22 and July 16, 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 (based on data collected between June 1 and June 30, 2020)[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 June 2020 were obtained based on data collected between June 1 and June 29, 2020.

2/ The question includes different specific factors, as well as an open option "other", in which business contacts can indicate other factors they consider relevant. In the case of data collected in June 2020 in this item it is noteworthy that practically all responses make a reference of the COVID-19 pandemic.

Source: Banco de México.

Business Agents' Opinion on Risks to Regional Economic Activity (based on data collected between June 22 and July 16, 2020) 1/

Upward risks

- That the measures implemented are effective in mitigating the spread of the pandemic in Mexico, and that the pandemic dissipates earlier than anticipated.
- That the stimuli provided in different realms contribute to protect employment and the productive apparatus.

Downward risks

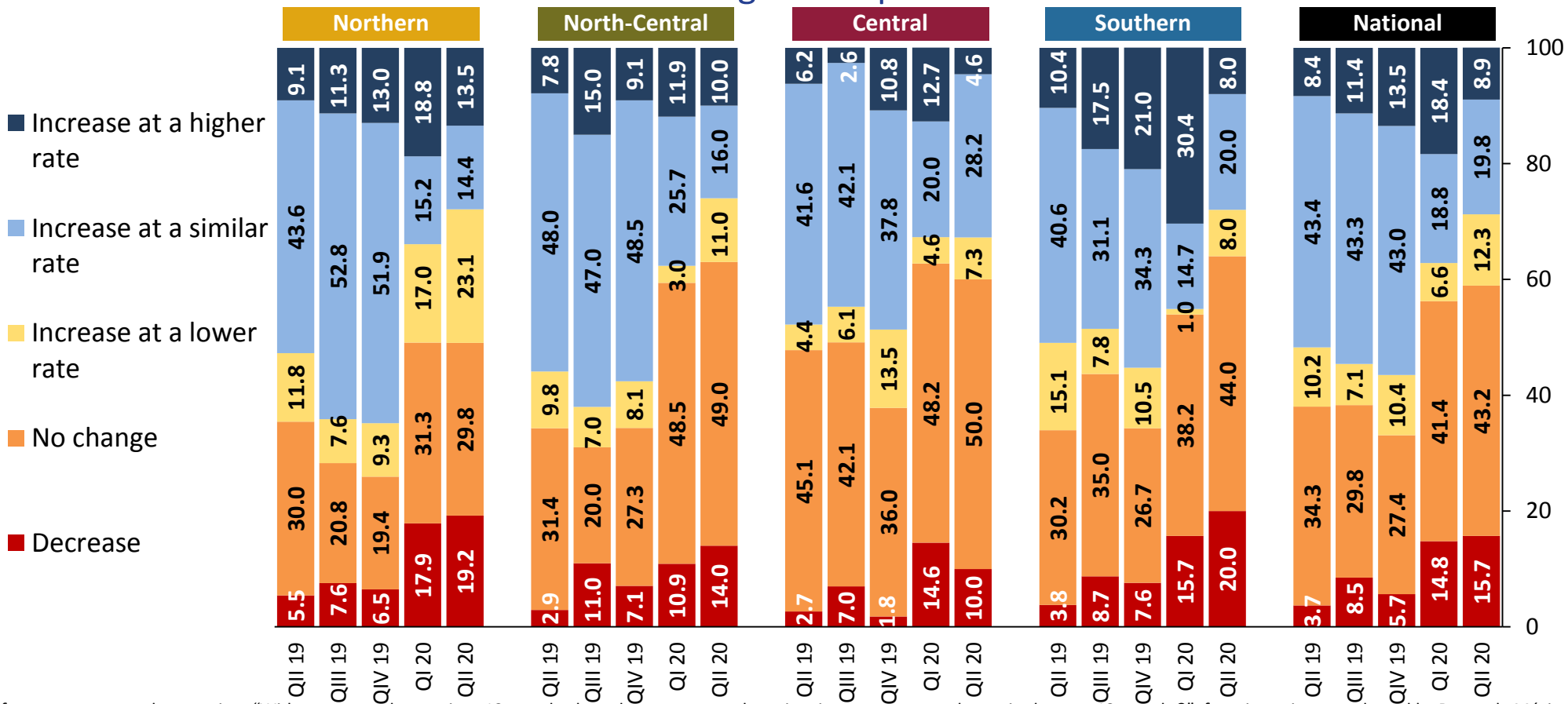
- That social distancing measures are extended or intensify due to new virus outbreaks, with the consequent impact on economic activity.
- That public safety indicators continue to deteriorate.
- That employment recovers slower than anticipated.
- That the environment of domestic uncertainty that has affected investment continues.

1/ Results obtained from responses to the questions: "Which are the main 2 events/situation/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 June 22 and July 16, 2020.

With respect to sales prices for own goods and services, just like in the previous quarter in all regions most business contacts responded that they anticipated them to remain at the same level during the next 12 months with respect to the previous 12 months.

Business Agents' Expectations: Sales Prices, Next 12 Months with respect to Last 12 Months 1/

Percentage of responses

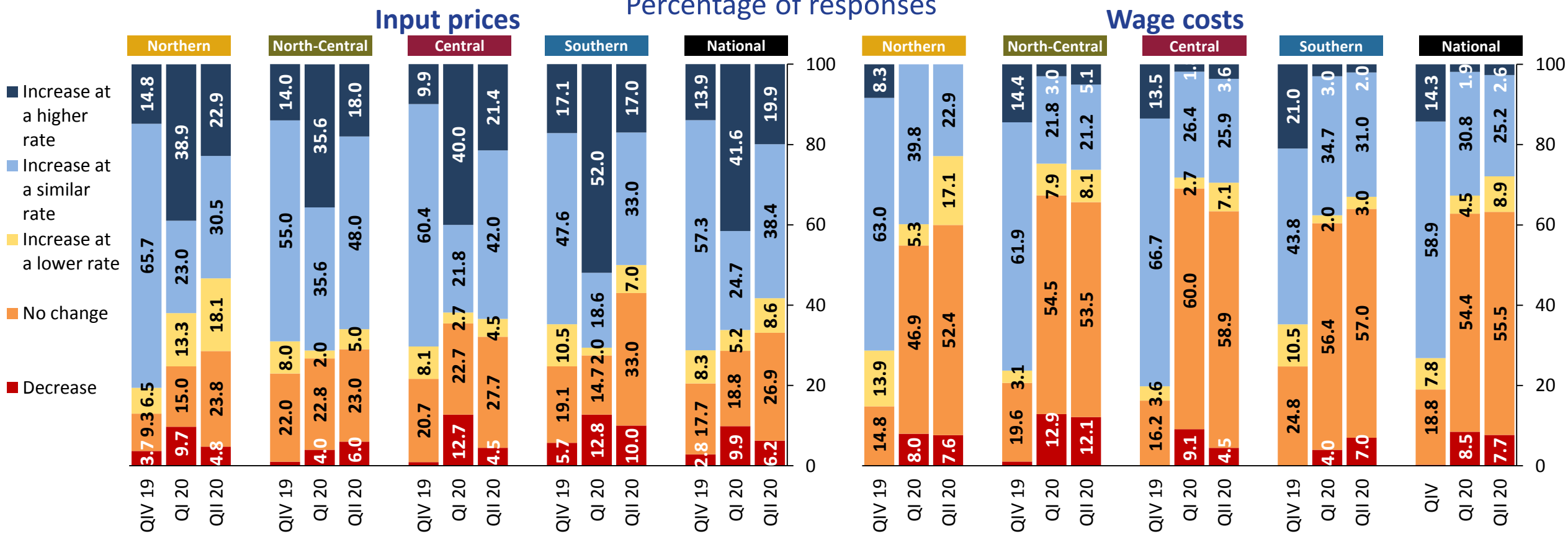


1/ Results obtained from responses to the question: "With respect to the previous 12 months, how do you expect sales prices in your sector to change in the next 12 months?", from interviews conducted by Banco de México. Figures for Q2 2020 were obtained from data collected between June 22 and July 16, 2020.

Business agents consulted in different regions mentioned with higher frequency that they expect their input prices to increase at an annual rate similar to that observed during the previous 12 months. As to wage costs, most business contacts in all regions anticipate these to remain the same over the next 12 months with respect to the previous 12 months.

Business Agents' Expectations: Input Prices and Wage Costs, Next 12 Months with respect to Last 12 Months [1/]

Percentage of responses



1/ Results obtained from responses to the questions: "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 changes in wages of workers in your sector to be in the next 12 months?", from interviews conducted by Banco de México. Figures for Q2 2020 were obtained from data collected between June 22 and July 16, 2020.

Outline

I. Regional Economic Report

II. Results April – June 2020

A. Economic activity

B. Inflation

C. Economic outlook

(based on data collected between June 22 and July 16, 2020)

III. Final remarks

Final remarks

1. During Q2 2020, the **effects** on economic activity caused by the COVID-19 pandemic and the actions implemented to contain it **intensified considerably**.

2. From particularly low levels recorded in April, **inflation increased in all Mexican regions**. This evolution is due to increases in both core and non-core inflation.

3. Interviewed business agents highlighted the following risks:

   - ✓ *To the upside: i) that the **measures implemented** are effective in mitigating the spread of the pandemic in Mexico, and the pandemic dissipates earlier than anticipated, and ii) that the **stimuli** provided in different realms **contribute** to protect employment and the productive apparatus.*

   - ✓ *To the downside: i) that social distancing measures are extended or intensify due to new virus outbreaks, with the consequent **impact on economic activity**; ii) that **public safety** indicators continue to deteriorate; iii) that **employment** recovers slower than anticipated, and iv) that the environment of domestic **uncertainty** that has affected investment continues.*

4. Looking forward, regions that are more oriented to the external market are more likely to benefit from a more rapid recovery of economic activity of our main **trade partners** and the recent entry into force of USMCA, while the performance of regions more linked to the domestic market will depend, to a larger extent, on the evolution of the labor market and of **domestic demand**. To support the recovery and foster long-term growth it is imperative to continue working in all regions to **correct the institutional and structural problems** that have propitiated low levels of investment and that have prevented Mexican regions from increasing their productivity.



BANCO DE MÉXICO

September 2020

www.banxico.org.mx