



Regional Economic Report
April – June 2022



Published-General Purpose

Information published by Banco de México

Outline

I. Regional Economic Report

II. Results April – June 2022

A. Economic activity

B. Inflation

C. Economic outlook

(based on data collected between June 27 and July 21, 2022)

III. Final remarks

Regional Economic Report

- The Regional Economic Report is a quarterly publication that includes Banco de México's indicators and analysis on the trends in economic activity, inflation and business agents' perspectives in Mexico's regions.
- The information presented herein is taken into account by Banco de México's Governing Board as part of the information used to evaluate the economic situation and the forecast for the national economy.
- The economic performance and inflation in the regions during Q2-2022, and the prospects of business agents surveyed between June 27 and July 21, 2022 on regional economic activity and prices over the following twelve months are analyzed herein.

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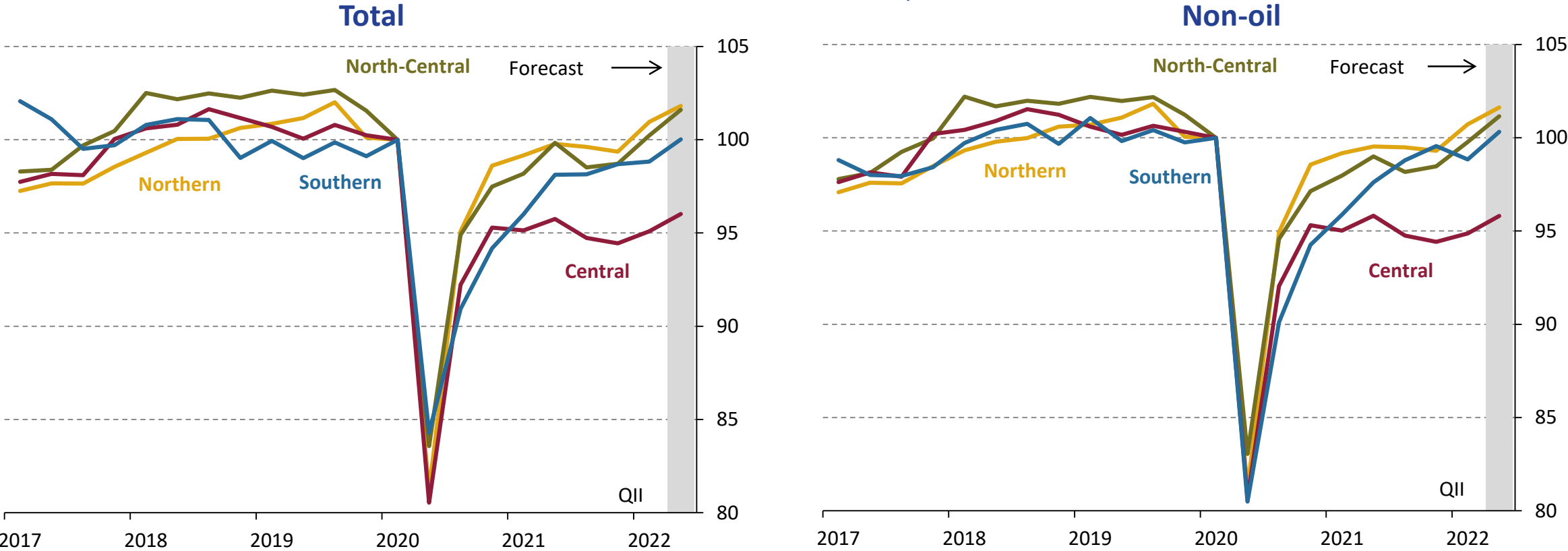
(based on data collected between June 27 and July 21, 2022)

III. Final remarks

During Q2-2022, economic activity is estimated to have continued to expand in all regions. In the Northern and North-Central regions, economic activity is expected to have been above the levels observed in Q1-2020, while the Southern region would be at a level similar to that reference. Meanwhile, the Central region is expected to continue showing a gap with respect to the level observed prior to the onset of the pandemic.

Quarterly Indicator of Regional Economic Activity

Index Q1 2020=100, s. a.

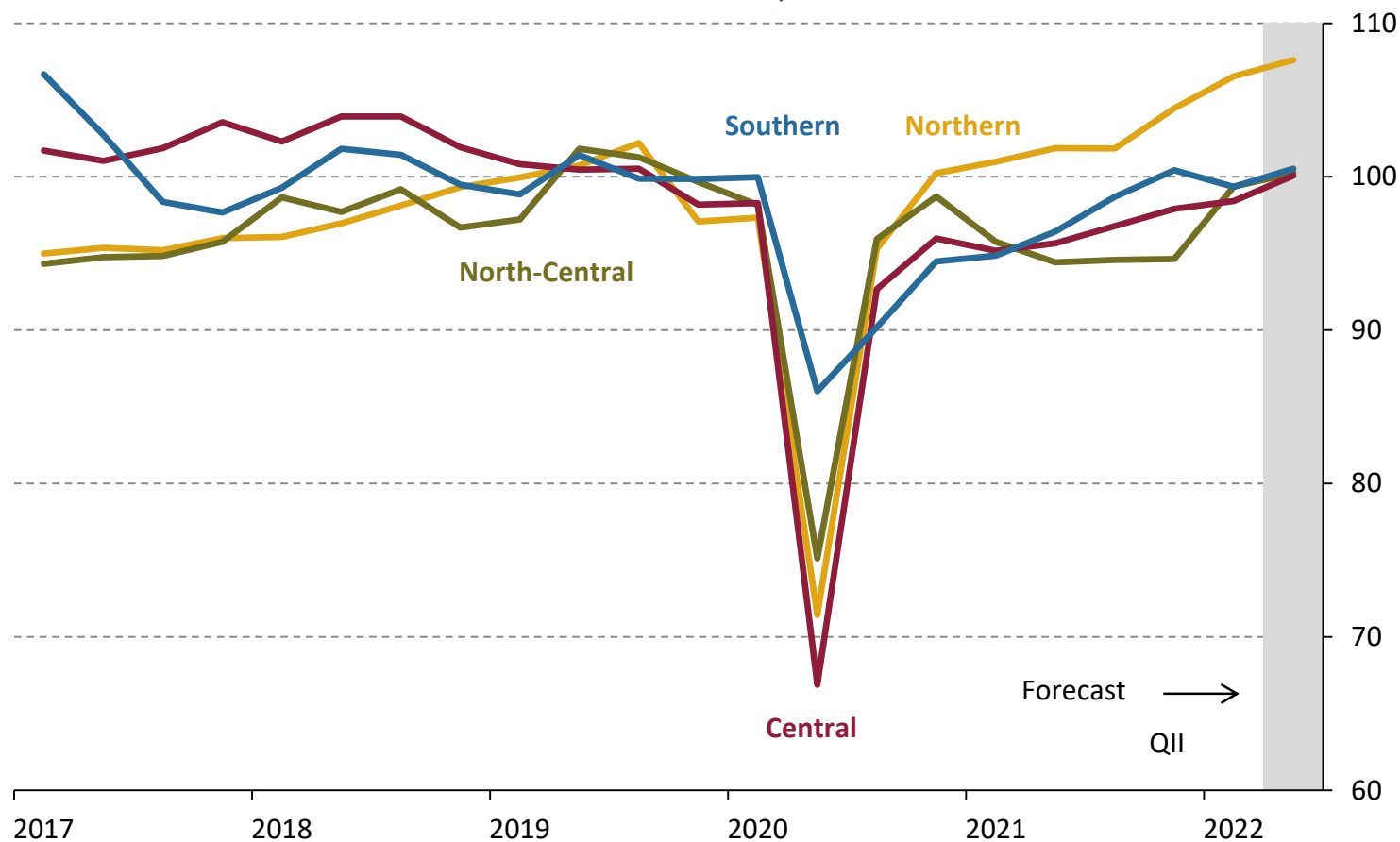


s. a. / Seasonally adjusted data.
 Source: Estimated by Banco de México with seasonally adjusted series of the Quarterly Indicator of State Economic Activity from INEGI.

In Q2-2022, manufacturing activity is estimated to have expanded in all regions, associated with the recovery of the automotive industry in the central regions and progress in manufacturing excluding transport equipment in all regions.

Regional Manufacturing Indicator

Index 2019=100, s. a.



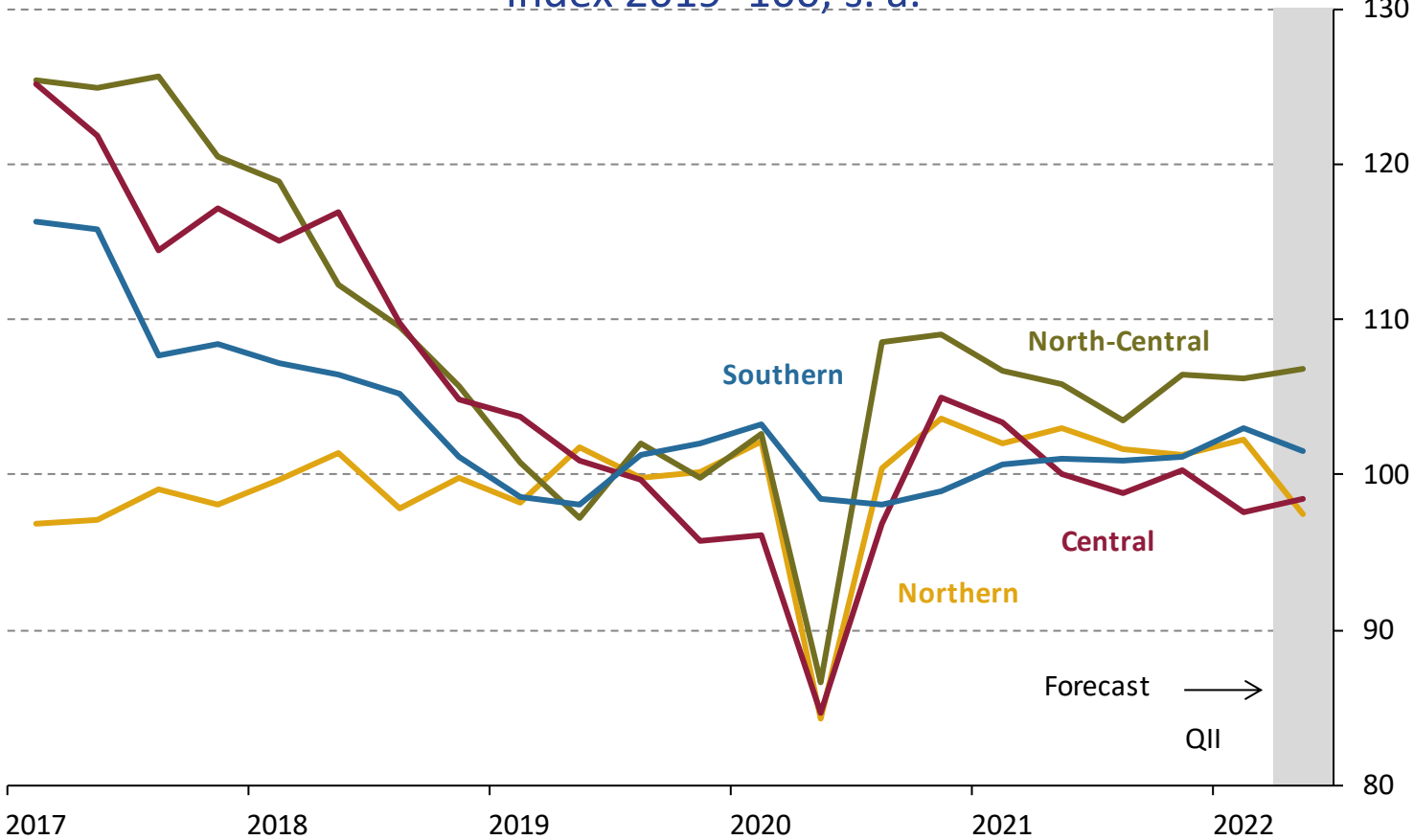
s. a. / Seasonally adjusted data.

Source: Estimated by Banco de México with seasonally adjusted series of the Monthly Indicator of Manufacturing Activity by State from INEGI.

During Q2-2022, mining in all regions is estimated to have remained subdued, mirroring the weakness of minerals' mining and, in the south, of oil mining.

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

Index 2019=100, s. a.



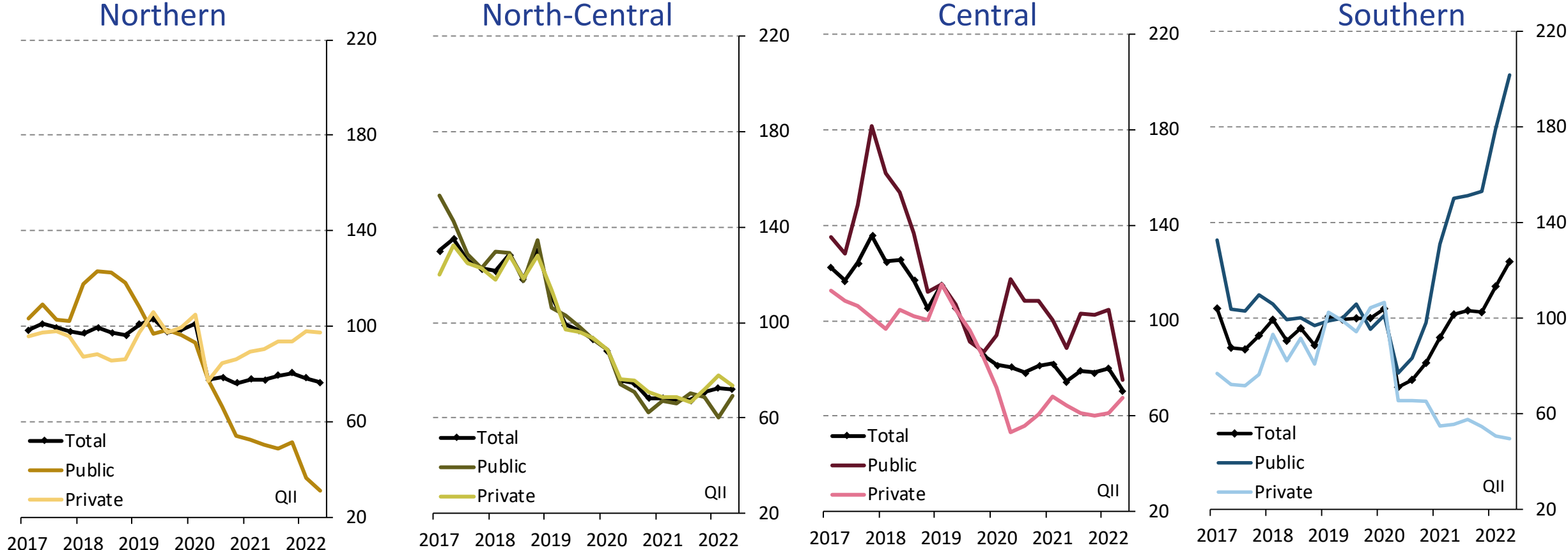
s. a. / Seasonally adjusted data.

Source: Estimated and seasonally adjusted by Banco de México with the series of the Monthly Indicator of Mining Activity by State from INEGI.

In Q2-2022, spending on construction in the Southern region continued to expand significantly, while in the rest of the regions it contracted. Within regions, private and public components performed heterogeneously.

Real Value of Production in the Construction Industry by Region

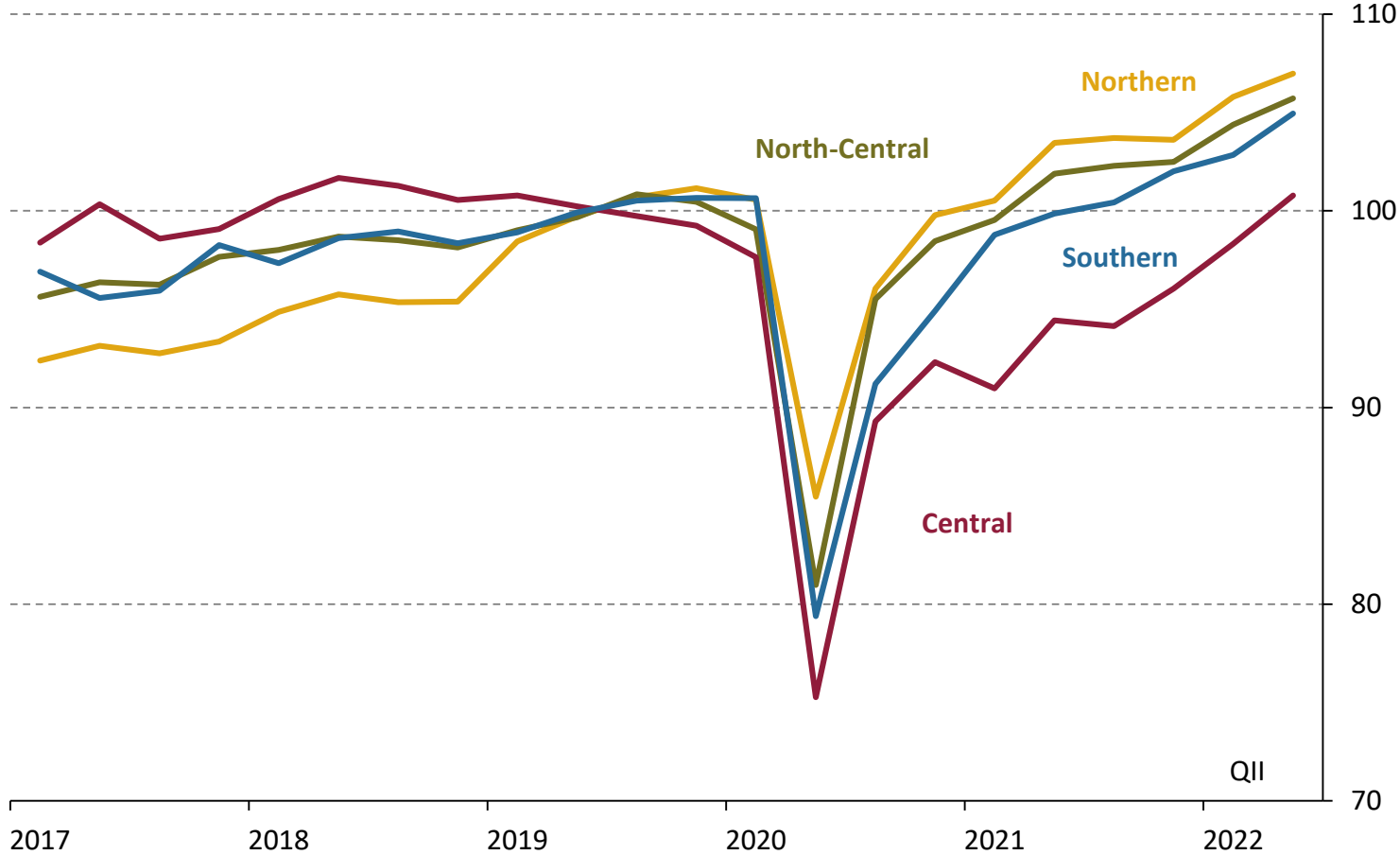
Index 2019=100, s. a.



s. a. / Seasonally adjusted data.
 Source: Prepared and seasonally adjusted by Banco de México with data from the National Survey of Construction Companies by I NEGI.

During Q2-2022, commercial activity in all regions continued exhibiting higher levels than those registered in Q1-2020, although progress in the Central region has been lower in relation to the latter period.

Index of Revenues from Retailers' Supply of Goods and Services Index 2019=100, s. a.



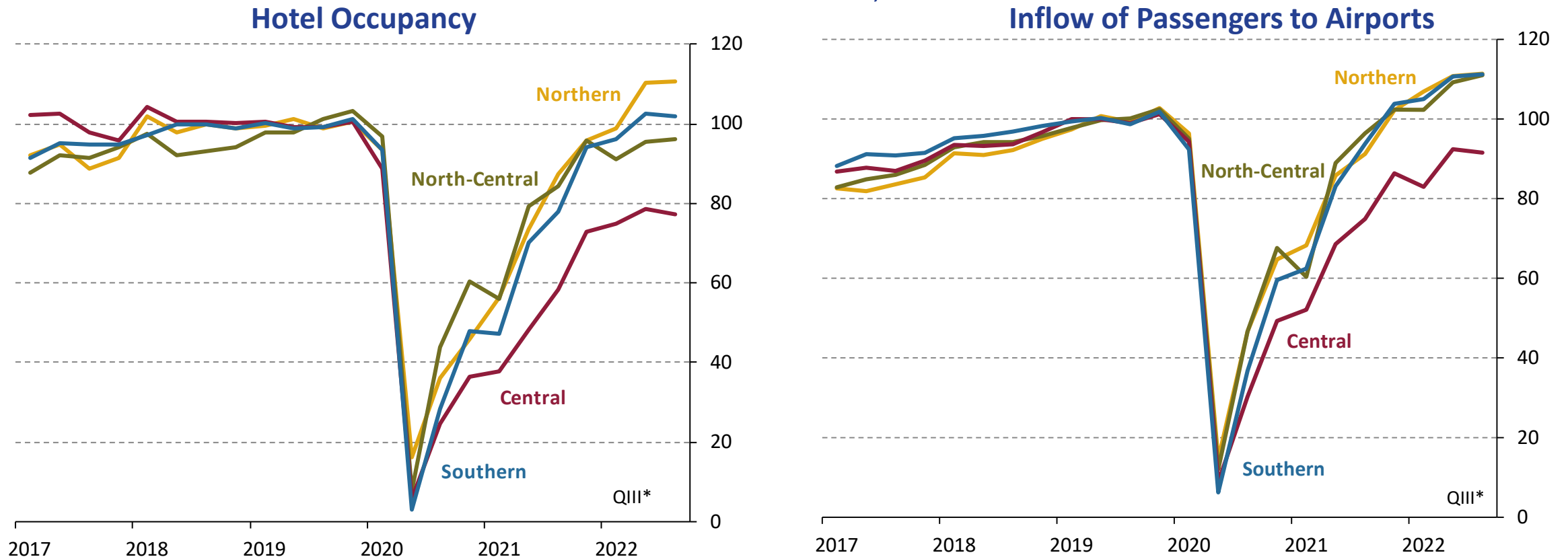
s. a. / Seasonally adjusted data.

Source: Estimated and seasonally adjusted by Banco de México with the series of Revenues of Retailers' Supply of Goods and Services by State from INEGI.

In Q2-2022, the tourism sector expanded in all regions. However, the Central region continued exhibiting a greater setback in its recovery compared to the other regions.

Regional Indicators of Tourism

Index 2019=100, s. a.



s. a. / Seasonally adjusted data.

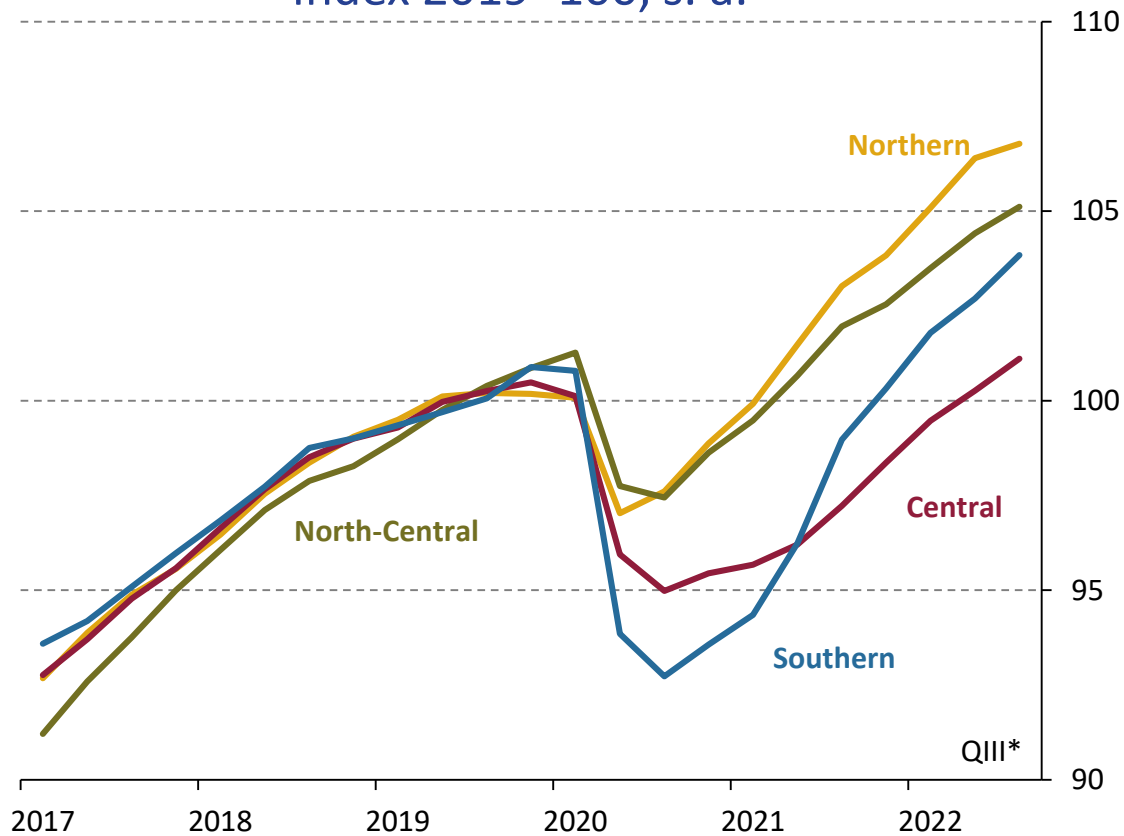
*/ Data as of July 2022.

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).

The number of IMSS-insured jobs continued recovering in all regions during Q2-2022.

Number of IMSS-insured Workers

Index 2019=100, s. a. ^{1/}



s.a./ Seasonally adjusted data.

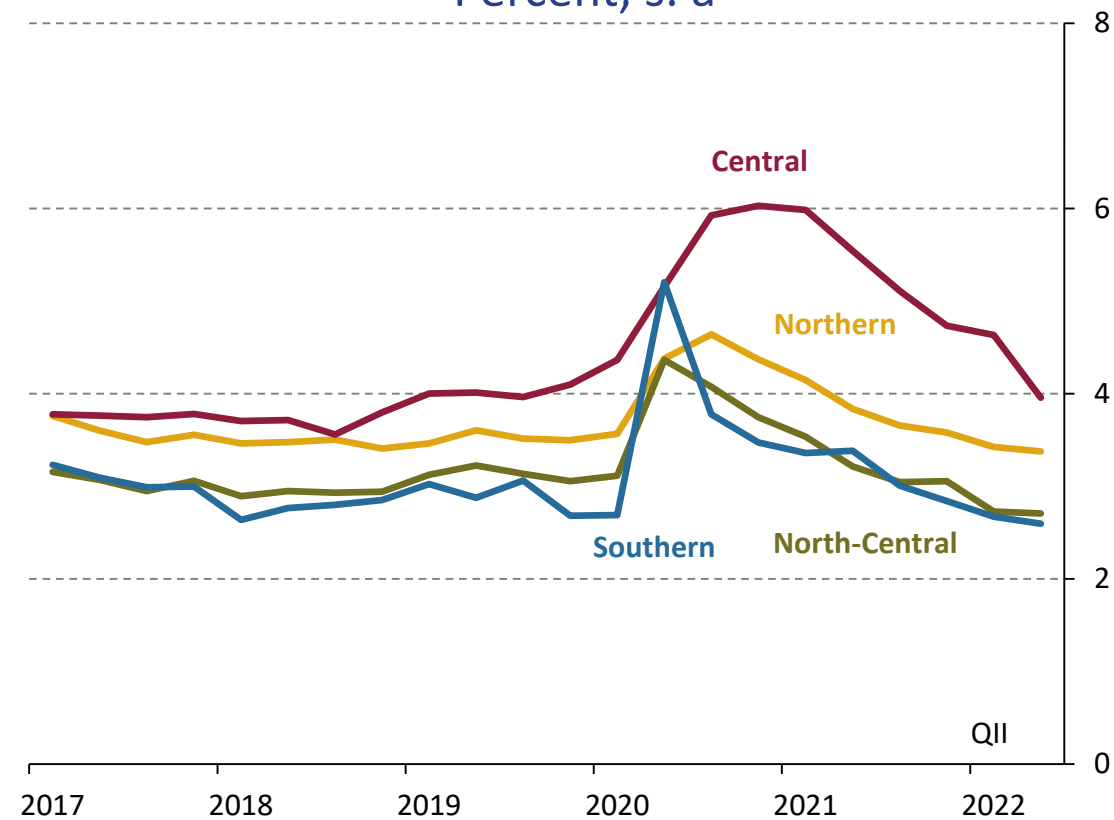
*/ Data as of August 2022.

1/ Permanent and temporary jobs in urban areas.

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

Unemployment Rate

Percent, s. a



s.a./ Seasonally adjusted data.

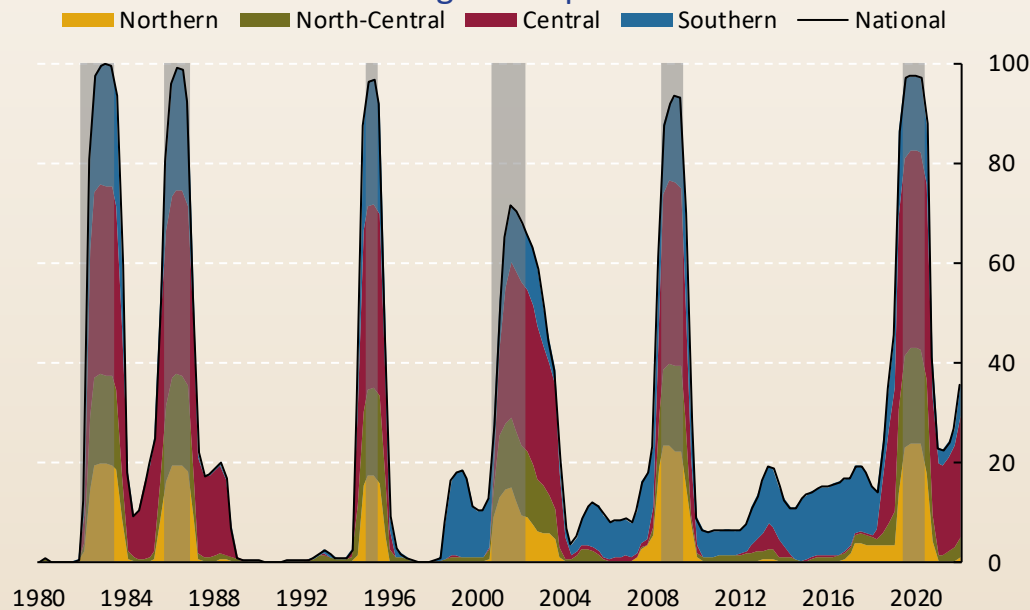
Source: Prepared and seasonally adjusted by Banco de México with data from INEGI. Data of Q2-2020 corresponds to labor indicators for Mexican states with an estimate using INEGI statistical models and, starting from Q3-2020, corresponds to the New Telephone Survey on Occupation and Employment (ENOE^N).

Cyclical Synchronization and Regional Contribution to Mexico's Economic Growth Regimes

- This Box shows the probability of regions transitioning to periods of lower growth and examines the subnational synchronization of Mexico and the United States.

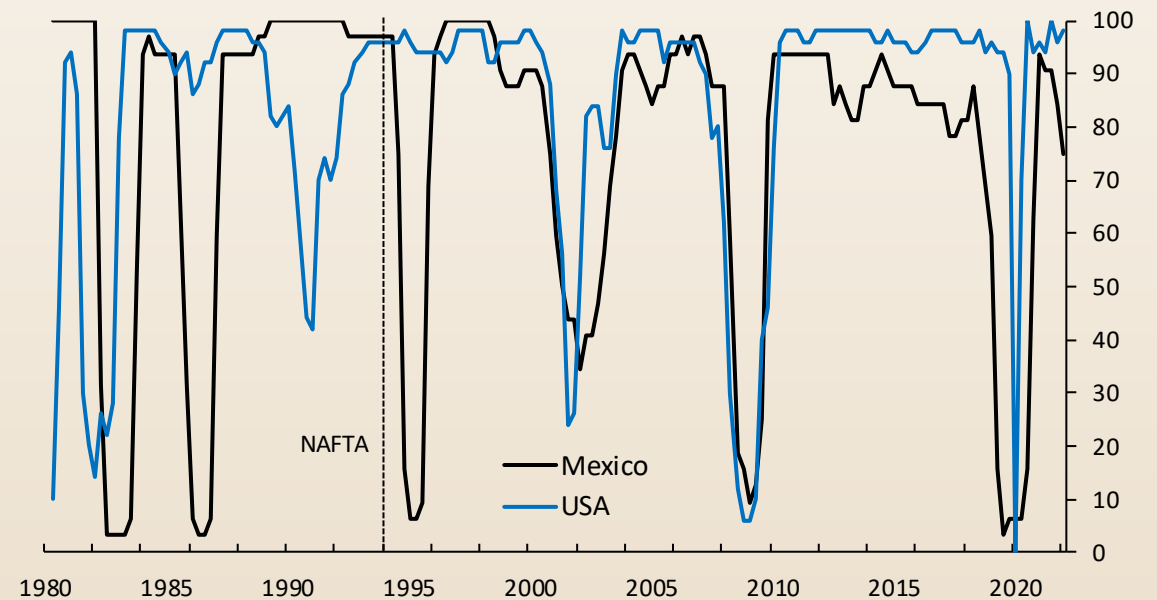
Contribution by Region to the National Aggregate Probability of Being in the Lower Growth Regime

Figures in percent



Source: Banco de México estimates using Hamilton's (1989) model in the Quarterly Indicators of State Economic Activity (ITAE, INEGI) to estimate the probability of indicators being in the lower growth regime. Subsequently, the probabilities of the states are aggregated at the regional and national level with a weighted average using GDP as a weight, as in Baumeister et al. (2021). The recessions (gray bars) are those identified by the Mexican Business Cycle Dating Committee.

Diffusion Index of State Economic Phases ^{1/}
Percentage of states in the higher growth phase



^{1/} Indices calculated using the state economic phases estimated using Hamilton's (1989) model. An entity is said to be in the higher growth phase when its probability of being in the higher growth regime is greater than 0.5.

Source: Banco de México estimates.

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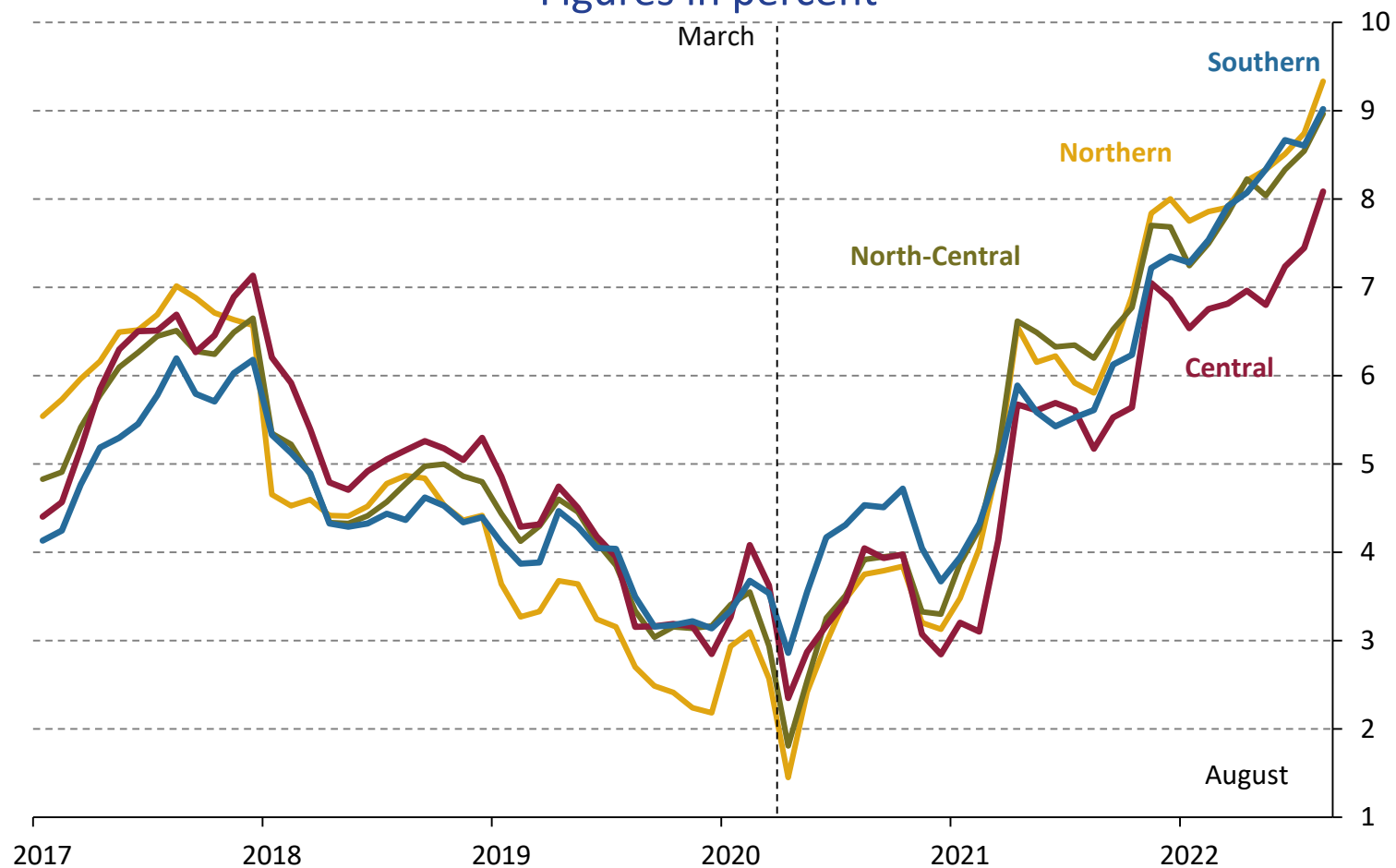
(based on data collected between June 27 and July 21, 2022)

III. Final remarks

The cumulative impact of the effects of the pandemic and the military conflict in Ukraine continued exerting pressure on inflation in all regions during Q2-2022.

Annual Headline Inflation by Region

Figures in percent

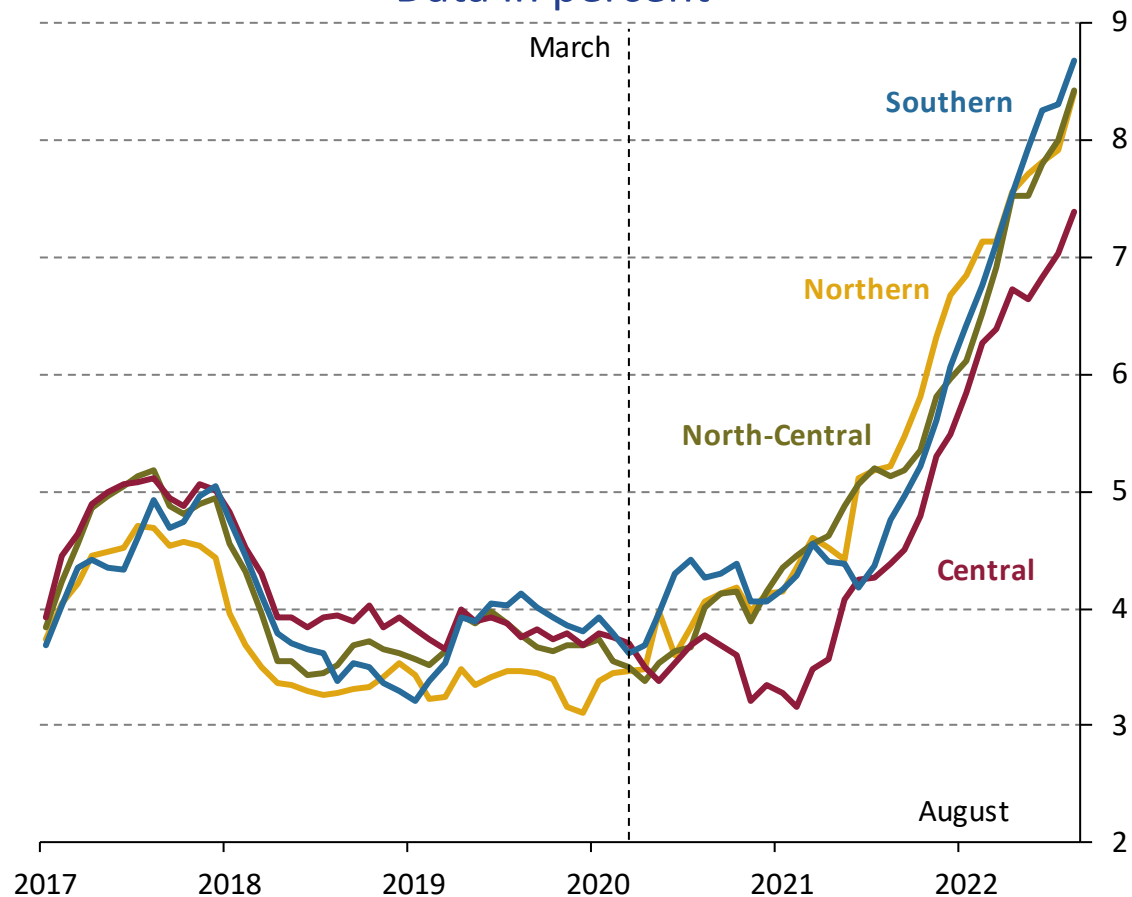


Source: Prepared by Banco de México with INEGI data.

Core inflation continued trending upwards in all regions during Q2-2022.

Annual Core Inflation by Region

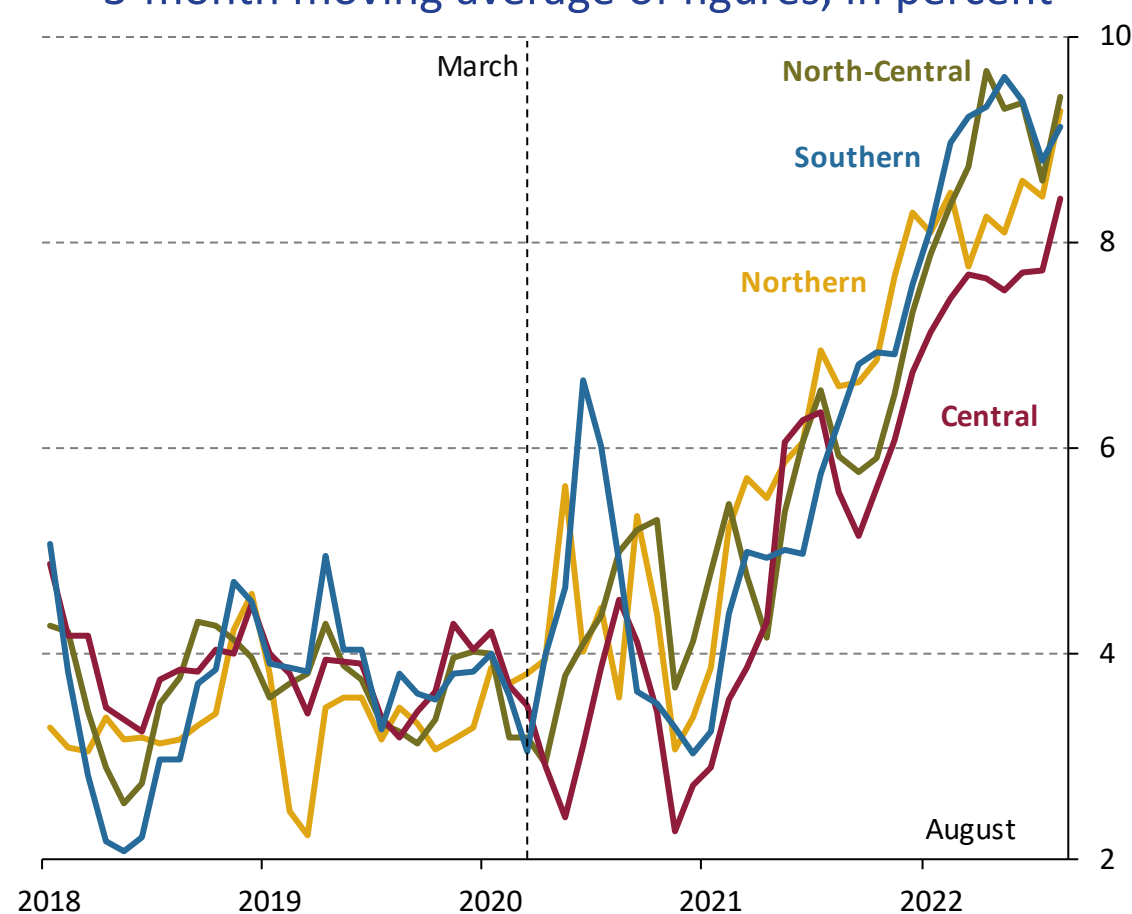
Data in percent



Source: Prepared by Banco de México with INEGI data.

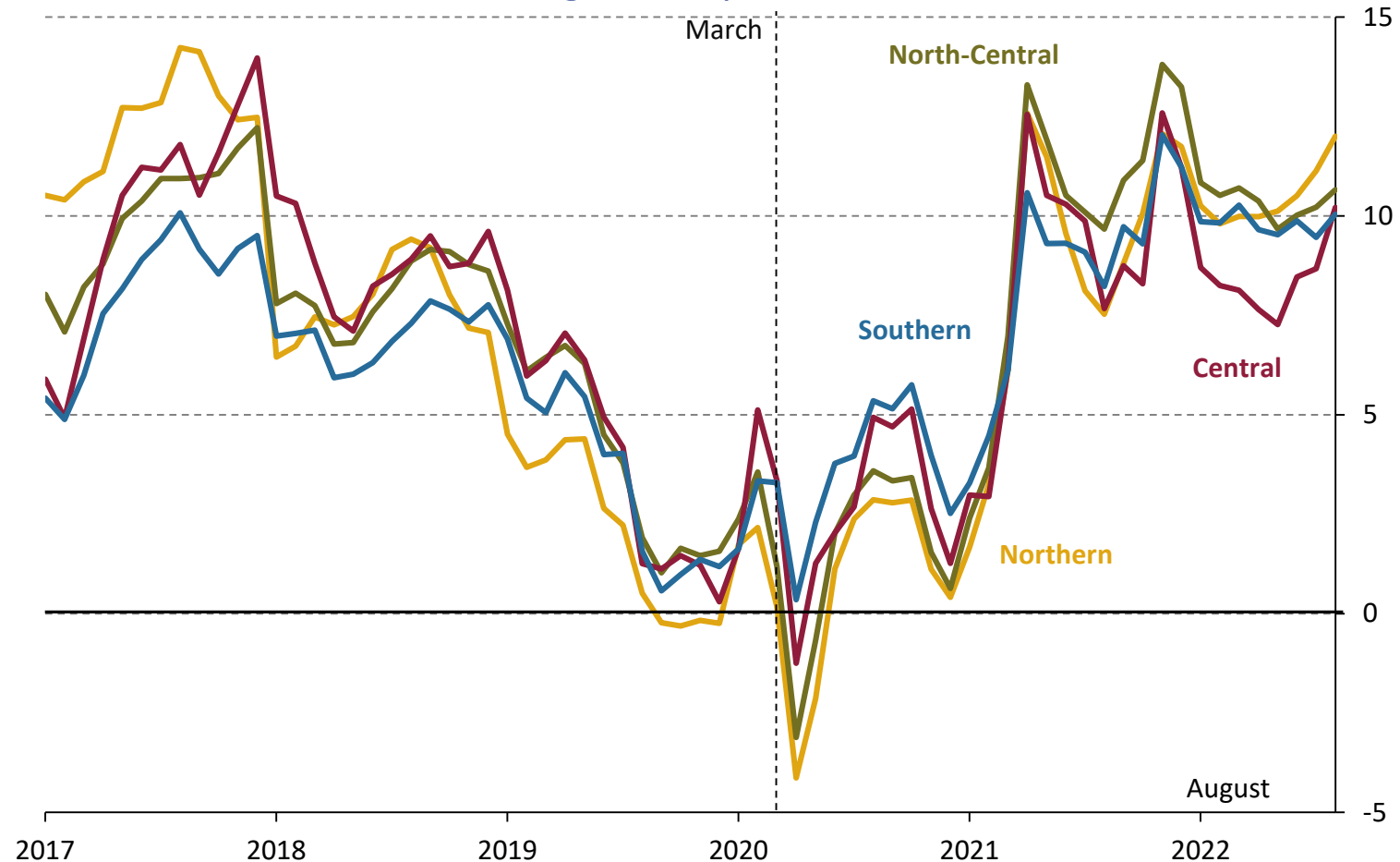
Annualized Seasonally Adjusted Monthly Variation of the Core Inflation Index

3-month moving average of figures, in percent



During Q2-2022, annual non-core inflation in all regions was at high levels.

Annual Non-core Inflation by Region Figures in percent



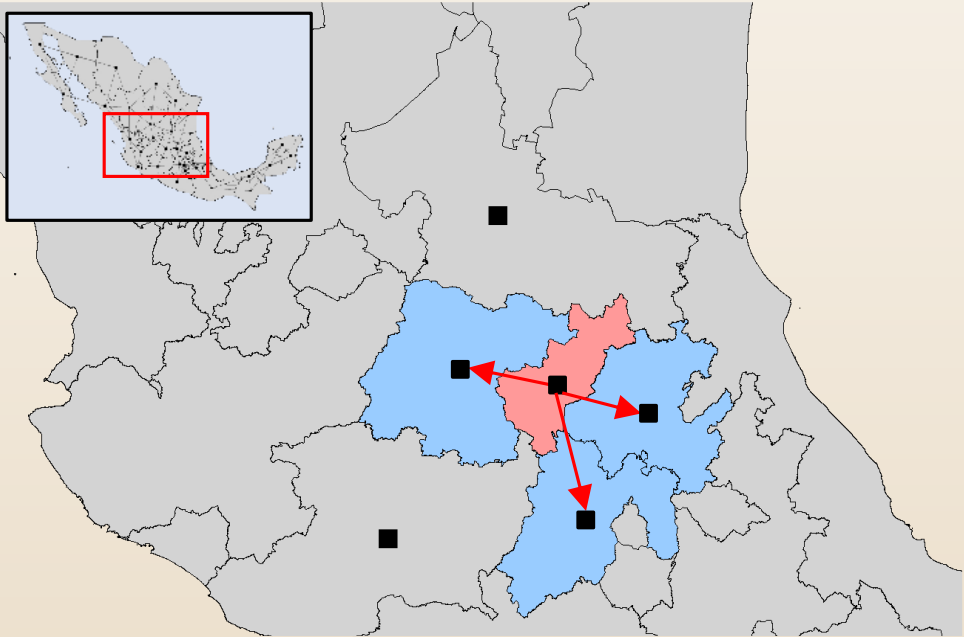
Source: Prepared by Banco de México with INEGI data.

Geographical Correlation of Inflation in Mexican States

- This Box shows that inflation in Mexican states is positively associated with that of the geographically nearest states, controlling for the behavior of inflation at the national level. Furthermore, an increase in spatial correlation is identified during the health crisis period.

Map to Determine the 3 Selected Neighboring States

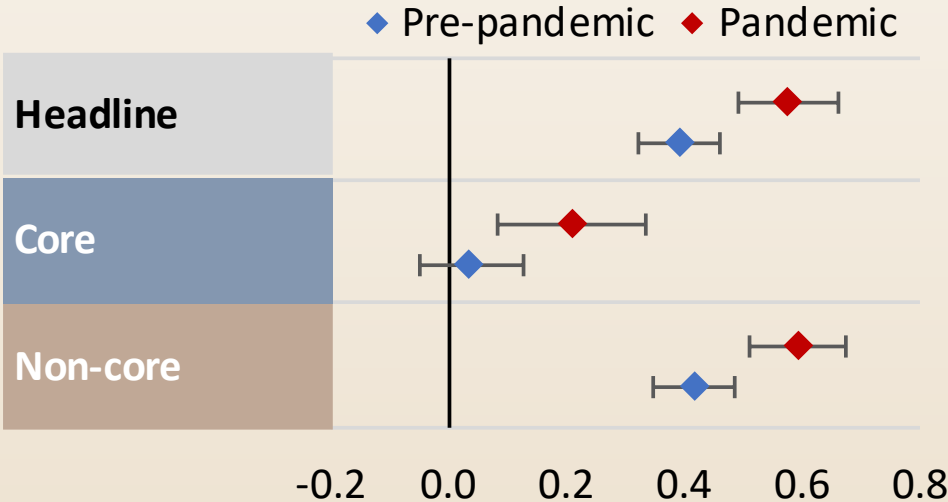
The case of Querétaro



Note: The selected neighbors of the state in red are marked in blue.
 Source: Banco de México based on INEGI data, *Marco Geoestadístico Nacional* (2021).

Spatial Correlation Coefficient

Pre-pandemic and pandemic estimates

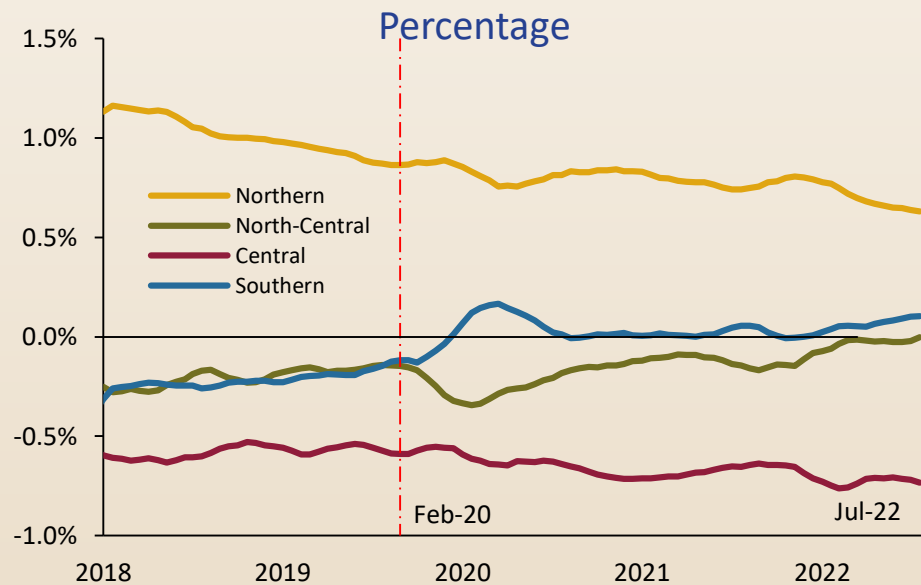


Note: The pre-pandemic period spans from the second quarter of 2015 to the first quarter of 2020, and the pandemic period from the second quarter of 2020 to the second quarter of 2022. Confidence intervals at 90%. Results correspond to Equation 1 on this Box.
 Source: Banco de México based on INEGI data, *Marco Geoestadístico Nacional* (2021) and National Consumer Price Index (2015-2022).

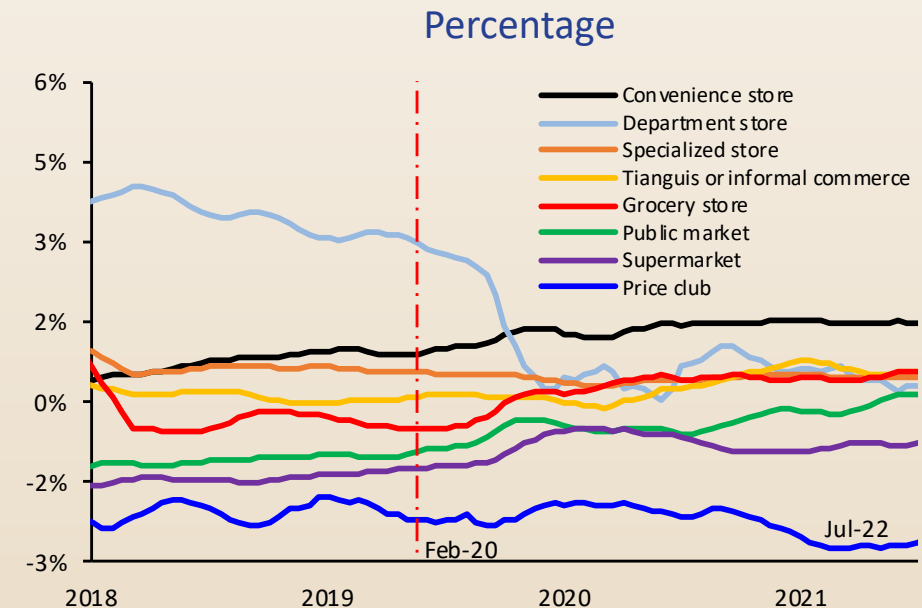
Consumer Goods Price Premia by Region and Store Type

- A **regional** price premium and a **store type** price premium are estimated. They are interpreted as how much more (or less) a consumer pays on average to buy a certain good in a certain region or in a certain type of store, respectively, relative to what it costs on average at the national level.
- Regional and store type premia can include both profit margins and costs specific to the region (e.g., distribution costs) or to each type of store such as amenities, location or size.

Regional Consumer Goods Price Premium



National Consumer Goods Price Premium by Type of Store



Note: Moving averages of six-weeks are shown for each of the estimated premium series. The dotted vertical line indicates the onset of the pandemic. Source: Prepared by Banco de México with INEGI data.

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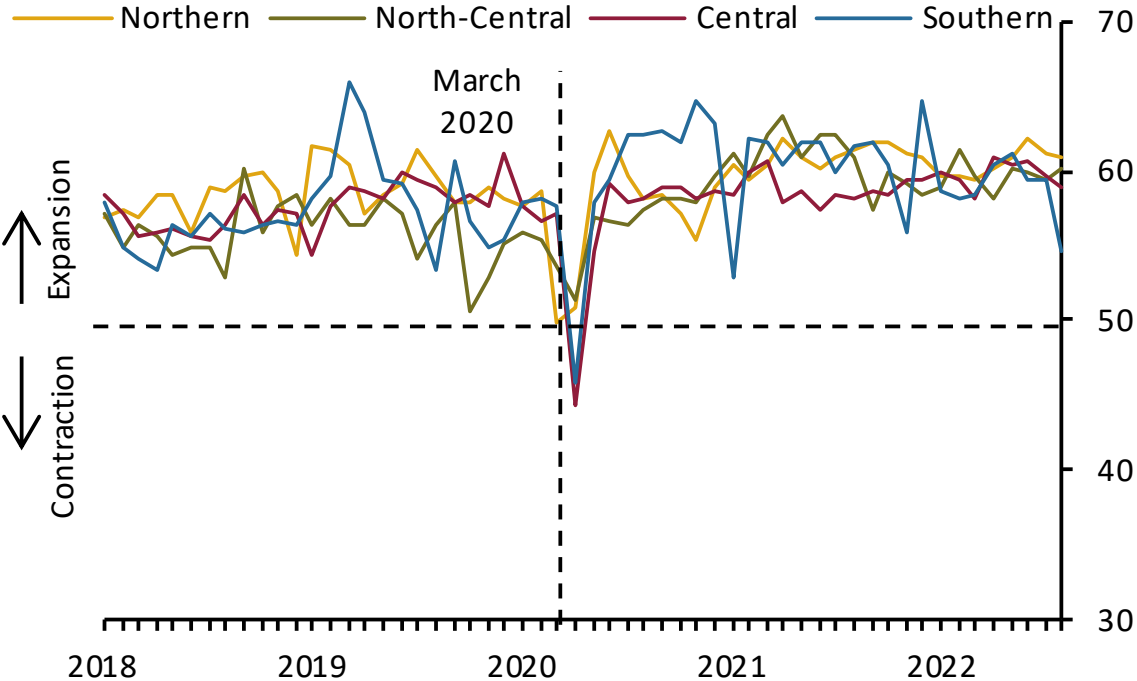
III. Final remarks

Regional manufacturing and non-manufacturing orders' indexes remain in expansionary territory.

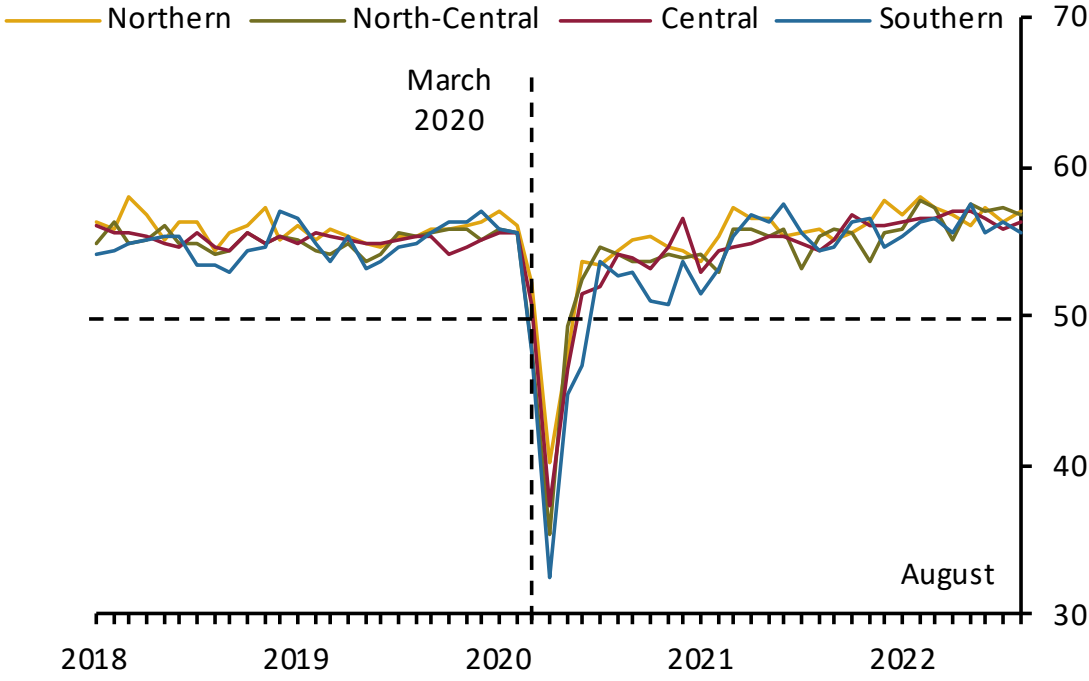
Regional Manufacturing and Non-manufacturing Orders' Index: Activity Outlook for the Next 3 Months

Diffusion indexes, s. a.

Manufacturing



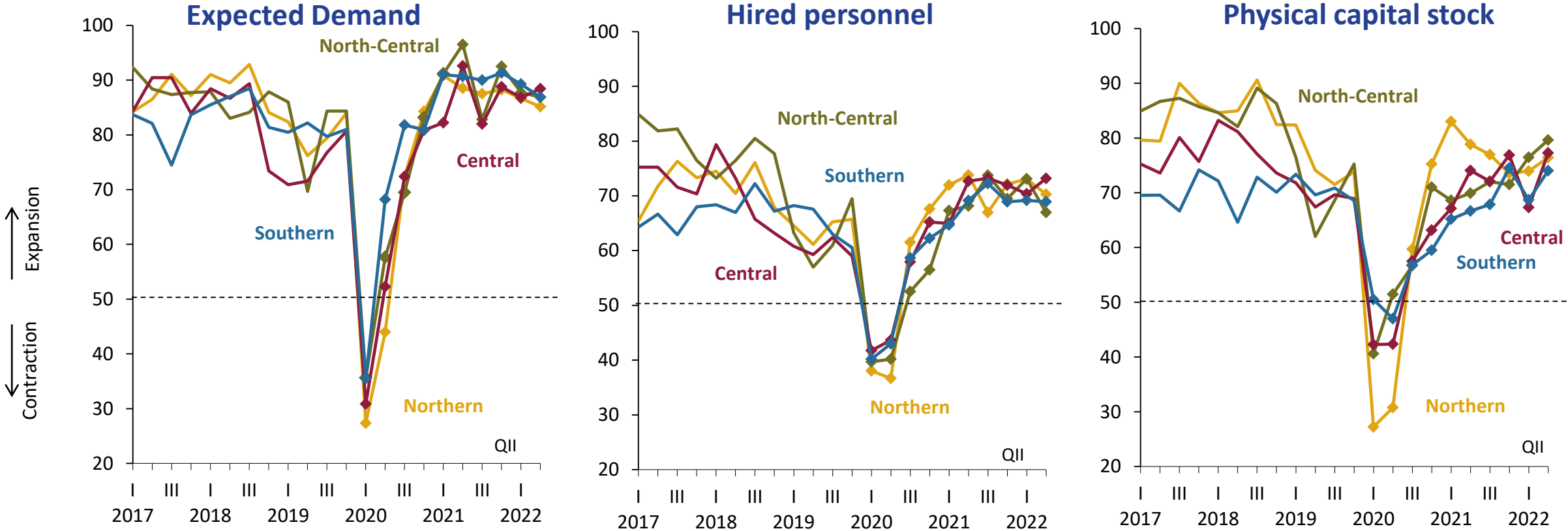
Non-manufacturing



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

The diffusion indexes of expectations on demand, number of workers hired, and firms' fixed asset investment remained in the expansion zone in all regions during Q2-2022.

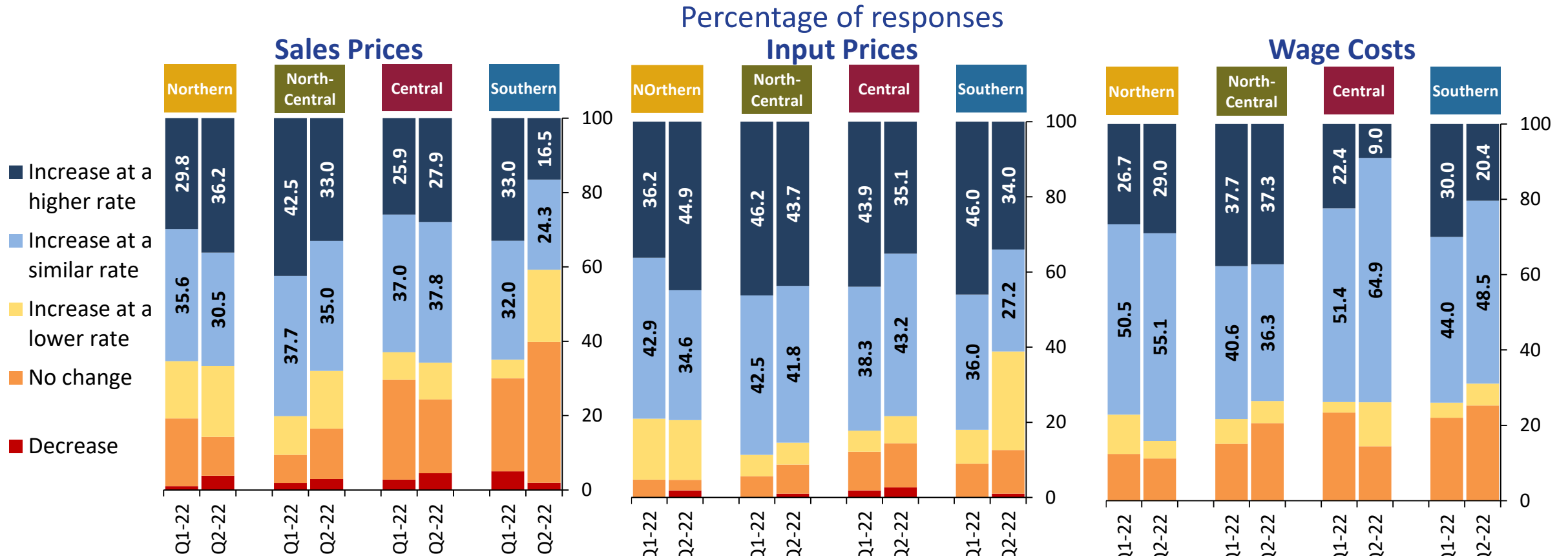
Business Agents' Expectations: Demand, Hired Personnel and Physical Capital Stock, Next 12 Months ^{1/} Diffusion indexes



^{1/} Results obtained from the questions: "With respect to the previous 12 months, how do you expect your sales volume to change over the next 12 months, how do you expect the total number of workers in your company to change over the next 12 months" and "With respect to the investment in fixed assets made by your company during the previous 12 months, how do you expect the level of investment to change over the next 12 months", included in the interviews conducted by Banco de México. Expectations corresponding to each Report were generally collected during the four weeks following the end of the reported quarter. In the case of the first quarter of 2022, they were obtained between June 27 and July 21, 2022.

In all regions, most interviewed business agents anticipate that sales prices of the goods and services they offer, input prices, and wage costs will increase at a similar or higher rate for the next twelve months as compared to the previous twelve months, except for sales prices in the Southern region.

Business Agents' Expectations: Sales Prices, Input Prices and Wage Costs, Next 12 Months with respect to Last 12 Months ^{1/}



^{1/} Results obtained from the questions: "With respect to the previous 12 months, how do you anticipate sales prices in your sector to change over the next 12 months, how do you anticipate the prices of inputs (goods and services) used in your sector to change over the next 12 months, and how do you anticipate wages and salaries of workers in your sector to change over the next 12 months?", included in the interviews conducted by Banco de México. Expectations corresponding to each Report were generally collected during the four weeks following the end of the reported quarter. In the case of the first quarter of 2022, they were obtained between June 27 and July 21, 2022.

Main Responses of Business Agents when Asked About the Top Three Factors that Could Hinder Growth of Economic Activity in Their Entities in the Next Six Months

Based on information collected between June 1 and June 30, 2022^{1/}

	Northern		North-Central		Central		Southern	
	Factor	Percentage of responses	Factor	Percentage of responses	Factor	Percentage of responses	Factor	Percentage of responses
1	Inflation	33.4%	Inflation	29.2%	Inflation	30.5%	Inflation	33.4%
2	External conditions	19.2%	Governance	22.9%	Governance	21.0%	Governance	22.6%
3	Governance	17.7%	Domestic economic conditions	19.1%	Domestic economic conditions	19.2%	Domestic economic conditions	19.4%

^{1/} Question: What do you consider to be the three main factors limiting the growth of economic activity in your state over the next six months? This question is similar to the one included in the questionnaire of the Survey on Expectations of Private Sector Economic Specialists. Figures for March 2022 were obtained based on information collected between June 1 and June 30, 2022.

Source: Banco de México.

Business Agents' Opinion on Risks to Regional Economic Activity (based on data collected between June 27 and July 21, 2022) ^{1/}

Downward risks

- ✓ That public safety indicators deteriorate.
- ✓ That inflation persists at high levels.
- ✓ That low levels of both public and private investment continue.

Upward risks

- ✓ That public spending, particularly investment in infrastructure, is higher than expected.
- ✓ That more favorable conditions are observed both domestically and internationally thus promoting greater private investment.
- ✓ That public safety levels strengthen.

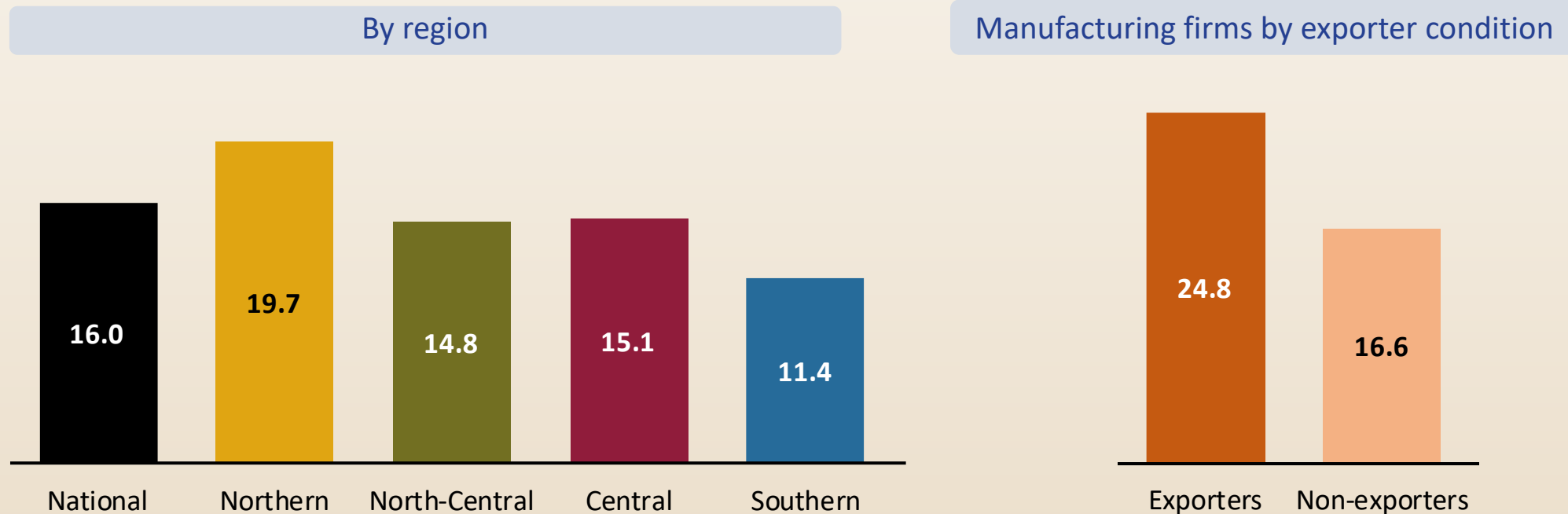
^{1/} Results obtained from the questions: "What are the 2 main events/situations/facts that if they were to occur would boost economic development in your state over the next 12 months?" and "What are the 2 main events/situations/facts that if they were to occur would limit economic development in your state over the next 12 months?", included in the interviews conducted by Banco de México between June 27 and July 21, 2022.

Business Agents' Opinion on Firm Relocation to Mexico

- The relocation of global production (nearshoring) to Mexico has led to increased demand and foreign direct investment for Mexican businesses, especially in the Northern region and for exporters in the manufacturing sector.

Businesses that Observed Higher Demand for their Goods or Services or an Increase in Foreign Direct Investment as a Result of Nearshoring during the Last 12 Months

Percentage of firms



Source: Prepared by Banco de México with information from EMAER. The graphs report the fraction of businesses that benefitted from increased foreign direct investment or higher demand as a result of nearshoring. EMAER is representative of manufacturing and non-manufacturing establishments with more than 100 workers. More disaggregated groups are reported for illustrative purposes. See Box 2 of the April-June 2022 Regional Economic Report.

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Final remarks

1 Looking ahead, the regional economies are expected to continue recovering.

- ✓ Nevertheless, **challenges to growth** prevail.
 - **A possible slowdown in the US economy**, which could particularly affect the entities most closely linked to that country, either through a lower dynamism of exports or remittances.
 - **That the pandemic and the geopolitical conflicts continue to affect global supply chains**, limiting activity in those regions most exposed to such disruptions.
 - **That public safety conditions inhibit economic activity.**
 - **That adverse climate events materialize.**

2 To face these challenges, it is necessary to foster adequate conditions for the recovery of private investment and for said recovery to be sustainable.

- ✓ Within the framework of the USMCA and in the context of a global relocation of production processes:
 - **A strengthening of the rule of law** would give greater certainty to companies and could boost investment flows not only to the regions that traditionally receive a greater share of these flows, but also to the Southern region.
 - **The construction of infrastructure projects**, particularly those that improve the Southern region's connectivity with North American markets, could also attract investment in the medium term.
- ✓ **Progress in controlling the pandemic** will continue to be key to achieve a more robust reactivation of activity, with greater certainty, especially in those regions specializing in services, such as the Central and Southern regions.

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