PANEL STUDY:
IMPACT OF COVID-19 ON SMALL- AND MEDIUM-SIZED ENTERPRISES IN IRAQ

MAIN FINDINGS

International Trade Centre

Food and Agriculture Organization of the United Nations

IOM UN MIGRATION

ABOUT IOM

The International Organization for Migration (IOM) is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental organization, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration; advance understanding of migration issues; encourage social and economic development through migration; and uphold the human dignity and well-being of migrants.

ABOUT FAO

The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger. FAO aims to achieve food security for all and make sure that people have regular access to enough high quality food to lead active, healthy lives. With 194 member states, FAO works in over 130 countries worldwide in pursuit of five objectives: to help eliminate hunger, food insecurity and malnutrition; make agriculture forestry and fisheries more sustainable; reduce rural poverty; enable inclusive and efficient agricultural and food systems; and increase the resilience of livelihoods to threats and crises.
For more information, visit www.fao.org.

ABOUT ITC

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations. ITC assists small and medium-sized enterprises in developing and transition economies to become more competitive in global markets, thereby contributing to sustainable economic development within the frameworks of the Aid-for-Trade agenda and the United Nations' Sustainable Development Goals.
For more information, visit www.intracen.org.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

As of 4 March 2021, 708,951 confirmed cases of COVID-19 and 13,483 deaths had been reported in Iraq, a fatality rate of 2.1 per cent.[1] The initial measures that the government of Iraq took one year ago in March 2020 to curb the spread of the pandemic —including lockdowns or curfews, school closures, and restrictions on travel into and within the country—have been relaxed in certain locations, producing some level of economic recovery by the end of 2020.

The United Nations' International Organization for Migration (IOM) in Iraq, Food and Agriculture Organization (FAO), and the International Trade Center (ITC) jointly conducted a panel study following the same 893 businesses in Iraq over the first nine months of the pandemic. The businesses were surveyed in three rounds in the summer, fall, and winter. Around half of the businesses across the sectors included in the study—agriculture, automotive, carpentry, chemical, construction, education, food production, general trade, hospitality, manufacturing, medical services, general services, materials (metal and plastic), technology and textiles—have witnessed a decline in production or sales between mid-September and mid-December.

The ongoing COVID-19 crisis and initial movement restrictions resulted in a drastic reduction in production, revenues, and employment among small- and medium-sized enterprises (SMEs) in Iraq. Overall, all the sectors in the study reported an average decline in production or sales between February, the pre-COVID-19 period, and December. Even within the least affected sector, food and agriculture, 82 per cent of firms reported a decrease in production between February (pre-COVID-19) and June (Round 1), 77 per cent of firms between June to September (Round 2), and 71 per cent of firms between September with December (Round 3).[2]

More than half of the firms in the study reported being at risk of permanently shutting down in June (Round 1), 65 per cent in all sectors and 58 per cent in food and agriculture.

By December (Round 3), that danger had been reduced to 31 per cent of firms in all sectors and 25 per cent in the food and agriculture sector.

At the beginning of the pandemic, the main strategy adopted by SMEs to cope with the COVID-19 crisis was to temporarily reduce employment, including not paying salaries (31%). However, once the mobility restriction started to relax in mid-August,[3] the most-used strategy became requesting leniency in paying financial responsibilities (32%). By December (Round 3), the most reported coping strategy was increasing marketing efforts (26%). Although there was an increase in the use of online sales observed during the study period, only 17 per cent of firms reported engaging in online sales by the end of 2020.[4]

SMEs faced large losses of revenue and declines in production and employment between March and December 2020. When asked what types of policies or financial programs would be the most beneficial, in late June and early July (Round 1) SMEs reported that the most-desired government support to cope with the pandemic would be to reduce the lockdowns for some sectors (68%). By September (Round 2), when mobility restrictions had been eased roughly one month prior, the most-desired government support become financial programs (46%). By December (Round 3), SMEs ranked financial programs to have the most potential to help (51%).

---

1   Corona tracker, 4 March 2021, https://www.coronatracker.com/country/iraq/.

2   In Round 1, firms were asked if and to what extent production had been affected. In Rounds 2 and 3, firms were asked if and to what extent production or sales had been affected.

3   Iraq eased the lockdown in late July but reintroduced a full lockdown from 31 July to 9 or 15 August 2020 (depending on the area), during which the Eid Al Adha holiday fell. Partial lockdowns in many areas continued in the second half of August. Garda World, "Iraq: Authorities announce easing of nationwide curfew and re-opening of airports July 16 /update 42" 20 July 2020; "COVID-19: Iraqi government imposes total curfew during Eid Al-Adha, permits reopening of private health clinics," 27 July 2020; Kurdistan 24, "COVID-19: Iraq records 3,325 new cases and 74 deaths, extends partial curfew," 8 August 2020.

4   Similarly, Kebede et al. (2020) found that 14 per cent of surveyed enterprises use e-commence as part of their business, from a sample of 1,175 enterprise enterprises. Tewodros Aragie Kebede, Svein Erik Stave, and Maha Kattaa, *Rapid assessment of the impacts of COVID-19 on vulnerable populations and small-scale enterprises in Iraq,* Food and Agriculture Organization (FAO) and International Labor Organization (ILO), July 2020.

More than half of the businesses in the study reported a decline in domestic sales. Whereas 5 out of 10 SME owners had difficulties accessing inputs domestically when the pandemic started, by the end of 2020 only 1 out of 10 businesses continued to face this challenge. The most commonly used input, wooden materials, was as equally accessible throughout the study period as compared to before the pandemic.[5]

The COVID-19 outbreak dramatically impacted the labor market. Initially, employment fell by 27 per cent from February (pre-COVID-19) to June (Round 1). Later, the reduction of movement restrictions helped SME owners to reactive some business operation. Employment increased by 27 per cent from June to August (Round 2), and by 4 per cent from August to November (Round 3). Employment levels remained below pre-pandemic levels by the end of 2020, with the number of male and female employees, including full- and part-time, decreasing on average by seven per cent between February and November. Furthermore, the coping mechanisms businesses adopted to respond to and stay afloat during the pandemic temporarily widened the gender gap in the labor market. In February, there was 1 woman per 15 men working in the surveyed SMEs. The gap reached 1 woman per 19 men by August, but then decreased to 1 per 13 in November 2020.

The economic challenges created by the pandemic severely impacted revenues of the SMEs in this study. Firms reported on average a decrease in revenue of 67 per cent between February, before lockdowns were implemented, and April. After lockdown measures started to ease, revenues recovered in some governorates and some sectors. The average revenues reported by surveyed firms increased by 44 per cent between May and July. Then, the growth slowed to a modest 13 per cent between August and September and did not change from September to October (0% on average). Therefore, well into the pandemic in October 2020 revenues still did not reach pre-pandemic levels.

IRAQI CONTEXT

The decline, by 42 per cent, in global crude oil prices from 2012 to 2019 has heavily impacted economies dependent on oil exploitation, such as Iraq.[6] Furthermore, the Iraqi economy has been dramatically affected by the Iraq War (2003 – 2011), the civil war in neighboring Syria after 2014, and ISIL's temporary occupation of one-third of Iraq's territory, causing destruction of public infrastructure and private assets.[7] The fragility of the Iraqi economy as well as the political situation and weak healthcare system triggered massive protests starting in 2019.[8] As a consequence of the protests, the Iraqi government announced new parliamentary elections.

Under this delicate economic and social situation, the COVID-19 outbreak severely impacted Iraq. After the first case was reported on 24 February 2020, there were an average of 66 new cases per day between February and May 2020. The number of cases began to rise dramatically starting in June, with an average of 2,482 people per day testing positive for the virus between June and August, peaking at 4,597 new cases on 10 September 2020. The number of cases declined after September but rose dramatically again starting in February 2021, reaching 7,300 new cases in early April and surpassing the peak in the 2020 wave (see Figure 1). The fatality rate of the virus has been around two per cent since the pandemic started.

BOX 1. SUSTAINABLE DEVELOPMENT GOAL #8:
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Indicator 8.5.2:
Unemployment rate, by sex, age and persons with disabilities

Two months after COVID-19-related movement restrictions in Iraq began, 38 per cent of female employees from the surveyed SMEs temporarily stopped receiving their salaries and 10 per cent were laid off. The rates among male employees were lower: 25 per cent of male employees temporarily stopped receiving their salaries and 4 per cent were laid off.

---

5   Inputs were classified into 108 categories from live animals to agriculture machinery. The Harmonized Commodity Description and Coding System is a multipurpose international product nomenclature developed by the World Customs Organization (WCO). The system is used by more than 200 countries and economies as basis for their Customs tariffs and for the collection of international trade statistics.

6   "Crude oil prices," Our World Data, University of Oxford.

7   Council Foreign Relations, "The Iraq War: 2003 to 2011."

8   European Asylum Support Office (EASO), *Iraq: The Protest movement and treatment of protesters and activists,* Country of Origin Information Report, Luxembourg: Publication Office of the European Union, October 2020.

Figure 1. Daily COVID-19 Cases in Iraq and Data Collection Time Periods
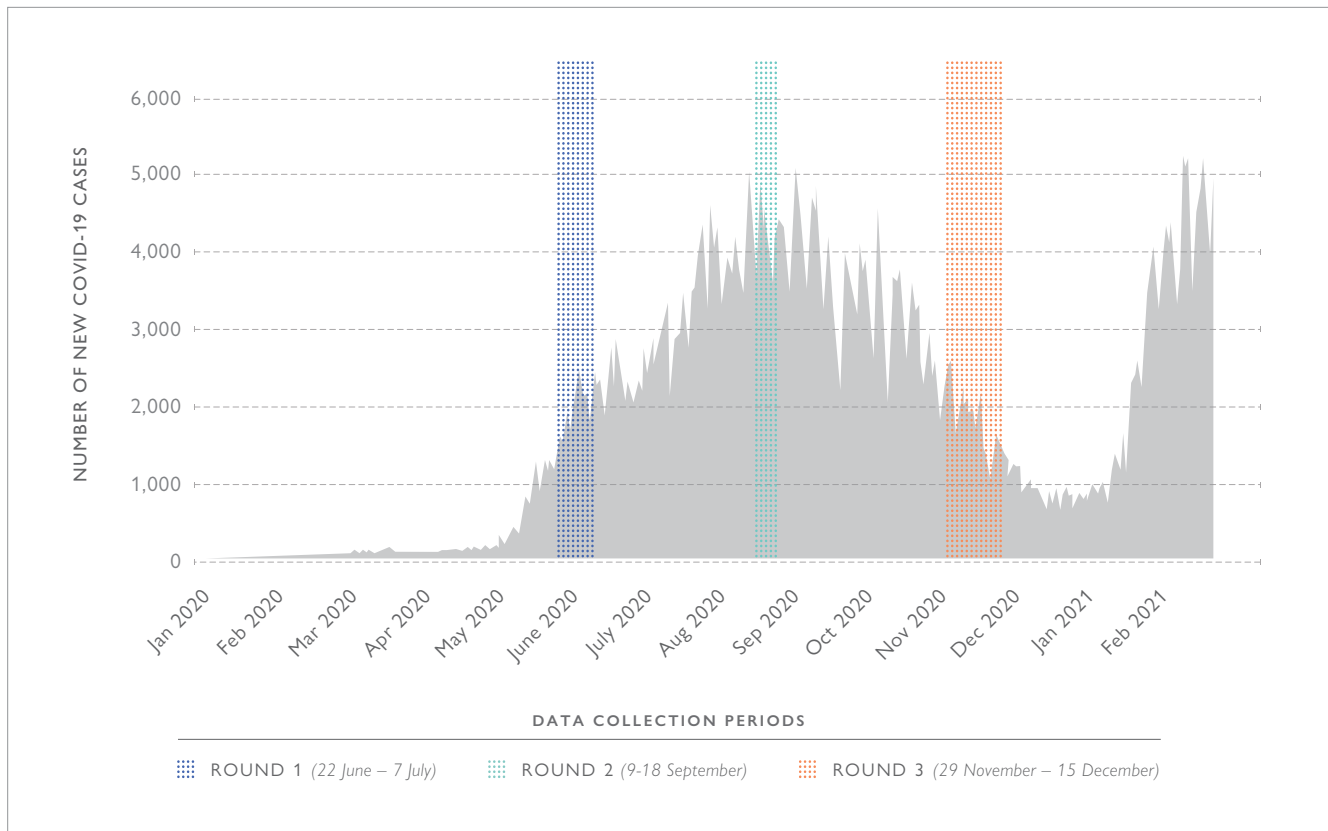
Note: Confirmed COVID-19 cases.
Source: JHU CSSE COVID-19 Data.

As a consequence of the COVID-19 crisis and the pre-existing economic challenges, the economy in Iraq is expected to have contracted by 9.5 per cent in 2020, the worst contraction in this country since 2003. Whereas non-oil sectors are expected to have contracted by 5 per cent, the oil sector is expected to have contracted by 12 per cent. The economic growth is projected to slowly return to between 2 and 7 per cent between 2021 and 2022, but this largely depends on the development of international oil prices in the new year. Additionally, the COVID-19 crisis is projected to move between 2.7 and 5.5 million of Iraqis into poverty, 7 to 14 percentage points more than the existing 6.9 million of people living below the poverty line in Iraq now.[9]

The COVID-19 pandemic has impacted the global economy in ways that will impede progress in achieving the UN Sustainable Development Goals (SDGs) by 2030, and Iraq is no exception.

In developing countries, for example, researchers estimated about 400 million new people are living under the $1.9 per day poverty line due to the pandemic.[10]

The decline in global economic activity resulting from measures implemented to fight the spread of COVID-19, and particularly in Iraq from decreased oil revenues,[11] inhibit countries' capacity and ability to end poverty in all its forms, the first goal of the Agenda for Sustainable Development.[12] The global outbreak of the COVID-19 virus has added further burden on the paths toward accomplishing many of the SDGs by 2030. This panel study can help pinpoint where exactly increased efforts may lie to achieve some of the SDGs while operating in an environment where COVID-19 exists. The UN is currently working on addressing these new challenges through a socio-economic response plan and the design of specially focused activities.

9   The World Bank in Iraq, "Overview," Updated 1 October 2020.

10 Andy Sumner, Eduardo Ortiz-Juarez, and Chris Hoy "Precarity and the pandemic: COVID-19 and poverty incidence, intensity, and severity in developing countries," Working Paper 2020/77, United Nations University World Institute for Development Economics Research (UNU-WIDER), June 2020.

11 The IMF estimates Iraq's economy reduced by 12% in 2020, according to Bloomberg, "Cash-Strapped Iraq in Talks With IMF on $6 Billion Loan Package," 24 January 2021. The World Bank predicted in October that oil-GDP was expected to contract by 12% in 2020 and non-oil-GDP by 5%, "Iraq Overview," 1 October 2020

12 See Boxes 1 through 5 throughout the report highlighting the relevance of this study's findings to a number of Sustainable Development Goals.

METHODOLOGY

IOM Iraq, FAO, and ITC conducted an assessment of 893 SME businesses in Iraq. The team selected respondents using a blocking design sample by Iraqi governorates from 2,236 firms registered in IOM databases, covering rural and urban areas.

The optimal sample size was determined to be between 650 and 950 to estimate an average reduction of four employees with a power of 80 per cent and a statistical confidence level of 95 per cent. This blocking design created a sample that is representative of the 2,236 firms in IOM's database using respondents identified in previous data collection across all governorates.

Round 1 included surveys of 893 SME business owners collected between 22 June and 7 July 2020. In Round 2, 851 of the same businesses were surveyed between 9 and 18 September. In Round 3, 822 of the same SMEs participated in the data collection between 29 November and 15 December.[13] The attrition rate was 5 per cent for Round 2 and 8 per cent by Round 3 (see Table 1).[14] The three rounds followed a training of the field researchers on the survey's concepts and terminology and were conducted via phone calls due to COVID-19-related movement restrictions and safety measures. Surveys followed an informed consent protocol that offered respondents a description of the purpose of the survey and a chance to opt out of the survey.

Table 1. Summary of Data Collection Time Periods

ROUND 1	ROUND 2	ROUND 3
22 June – 7 July 2020	*9-18 September 2020*	*29 November – 15 December 2020*
SMEs: 896	SMEs: 851 Attrition Rate: 5%	SMEs: 822 Attrition Rate: 8%

BREAKDOWN OF SMEs

Almost all SMEs in the study have a male above 35 years old as the top manager of the business. About half are registered with or licensed by a national authority.[15] About 98 per cent SMEs trade locally and do not participate in international trade. On average, surveyed SMEs estimate the value of their firms at 69,310 USD (see Table 2).

Table 2. Background of SMEs

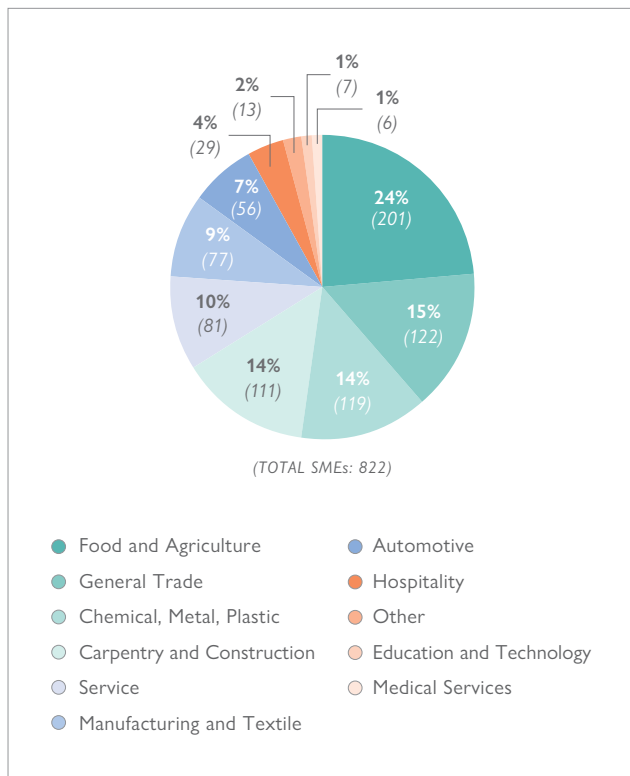| VARIABLE	MEAN	STD. DEV.
Top manager of business is female	3%	17%
Top manager of business is less than 35 years old	30%	46%
Business is currently registered with or licensed by a national authority	48%	50%
Business does not participate in international trade	98%	15%
Estimated worth of firm (in USD)?	$69,310	$368,059

13 In each round of data collection, some questions were asked in terms of the time period or month in which the interview was taking place and others were asked about a different time period. In Round 1, questions about employee numbers, revenue, and production were asked in terms of "the past four weeks." Data collection took place between 22 June and 7 July. The period of time will be referred to as June throughout the report. In Round 2, questions about employees, revenue, and production were asked in terms of the period of August. Other questions were asked in terms of the period up until the interviews took place, which was from 9 to 18 September. In Round 3, questions about employees were asked in terms of the month of November, and questions about revenue were asked in terms of the months of October and September. Therefore, the month identified will differ based on the question that was asked, but will always be tied to the round in which it was asked.

14 From the original 893 SME businesses, 14 per cent of firms in medical services did not participate in Round 2, 9 per cent are in hospitality, 9 per cent in textile, 8 per cent in general trade, 6 per cent in manufacturing, 5 per cent in construction and services each, 3 per cent in carpentry, and 1 per cent in automotive. Furthermore, from the original sample of SMEs, 14 per cent each of firms in food and general trade did not answer Round 3, 6 per cent in metal and textile each, 5 per cent in services, 4 per cent in food and agriculture, construction, hospitality and manufacturing each, 4 per cent in automotive, 2 per cent in carpentry, 1 per cent in chemical, education, medical and technology each.

15 This proportion of registered firms is likely higher than the national average. Iraq's informal economy is about two thirds of all workers. "Assessment of the labour market & skills analysis: Iraq and Kurdistan Region-Iraq: informal sector," UNESCO Digital Library, BAG/2019/PI/5, 2019, pg. 48.

This panel study focused on 16 sectors, with a particular focus on food and agriculture, since the collaboration on the study was undertaken as part of a joint agri-food business development program. Given the variant types of border closures, and in particular some freedoms allowed to agricultural workers during the COVID-19 movement restrictions, food and agriculture businesses were oversampled in order to determine variance in outcomes and firm effects, if any, compared to non-agricultural businesses. A total of 201 food and agriculture SMEs were included in the study, in the subsectors of agriculture (50), retail and wholesale (45), agri-food processing (41), accommodation and food services (39), and other businesses (26). General trade (122) is the second most represented sector in the sample, followed by chemical and materials businesses (119), carpentry and construction (111), services (81), manufacturing and textile (77), automotive (56), the hospitality industry (29), education and technology (7), medical services (6), and other businesses (13) for a total of 822 SMEs surveyed (see Figure 2).

Figure 2. SME Breakdown by Sector

(TOTAL SMEs: 822)

- ● Food and Agriculture
- ● General Trade
- ● Chemical, Metal, Plastic
- ○ Carpentry and Construction
- ○ Service
- ● Manufacturing and Textile
- ● Automotive
- ● Hospitality
- ● Other
- ● Education and Technology
- ○ Medical Services

BOX 2

SUSTAINABLE DEVELOPMENT GOAL #8:
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Indicator 8.3.1:
Proportion of informal employment in total employment, by sector and sex

The study found higher female job loss among informal firms compared to formal firms, and the opposite for male job loss. Comparing February (pre-COVID-19) and December (Round 3), the number of full- and part-time female employees at formally registered firms declined by 3 per cent, while the number of female employees working for informal firms decreased by 28 per cent. On the contrary, the reduction of male employees was higher in formal firms compared to informal firms, 23 per cent and 10 per cent respectively. Half of the surveyed businesses are not registered with or licensed by a national authority.

SUSTAINABLE DEVELOPMENT GOAL #5:
Achieve gender equality and empower all women and girls

Indicator 5.5.2:
Proportion of women in managerial positions

The study observed a change in the number of female employees relative to male employees among the SMEs in this study. The beginning of lockdown period can be associated with an increase in the gender gap, as SMEs laid off employees to cope with the financial challenges brought on by the pandemic. By the end of the study period in December 2020, as firms witnessed a partial recovery of revenue and the lockdowns had been partially or fully lifted for several months, the gender gap declined (see Figure 13). Prior to the beginning of the pandemic and over the study period, almost all surveyed SME had a male in the position of head manager.

This study covers 15 governorates. Ninewa has the highest number of surveyed SMEs (14%), followed by Kirkuk (11%) and Basra (9%). The spatial distribution of the SME owners in the Iraqi governorates is presented in Figure 3.

Figure 3. Locations of Sampled SMEs Participating in Rounds 1, 2, and 3 of Panel Study
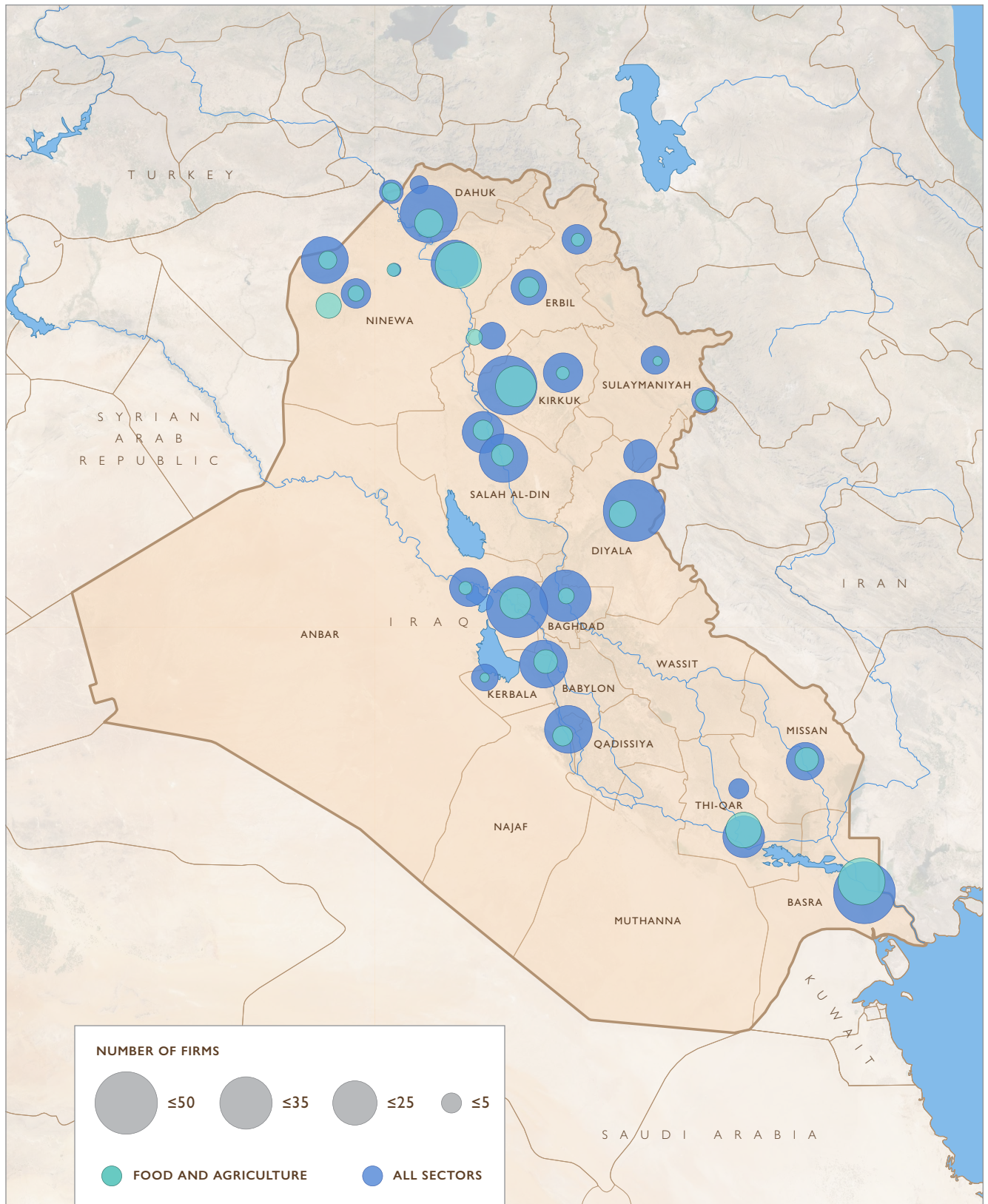
OVERALL IMPACT ON SMEs:
ALL SECTORS VS. FOOD AND AGRICULTURE

All-sector and the food and agriculture SMEs saw similar changes in production and accumulation of new debt due to COVID-19 over the study period. Food and agriculture firms reported a lower risk of permanent closure. By the end of 2020, both groups had not recovered from the economic impact of COVID-19.

The COVID-19 crisis has negatively impacted SME production levels of all sectors. However, the food and agriculture sector was less affected at the beginning. Between when lockdowns began in mid-March and the end of June and early July (Round 1), almost all business owners witnessed a decline in production. In the beginning months of the pandemic, the decrease in production or sales for the food and agriculture sector was initially better than the all-sector average (see Figure 4). After the first round of data collection, the difference in the two groups decreased.

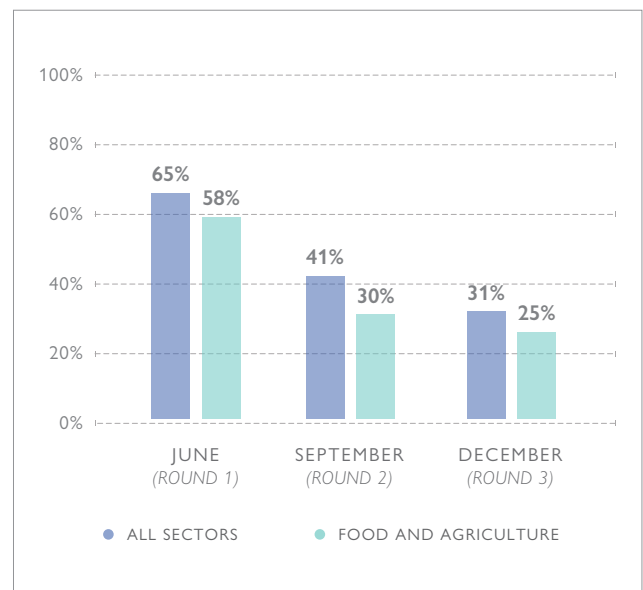Figure 4. % of SME Owners Who Witnessed a Decline in Production or Sales
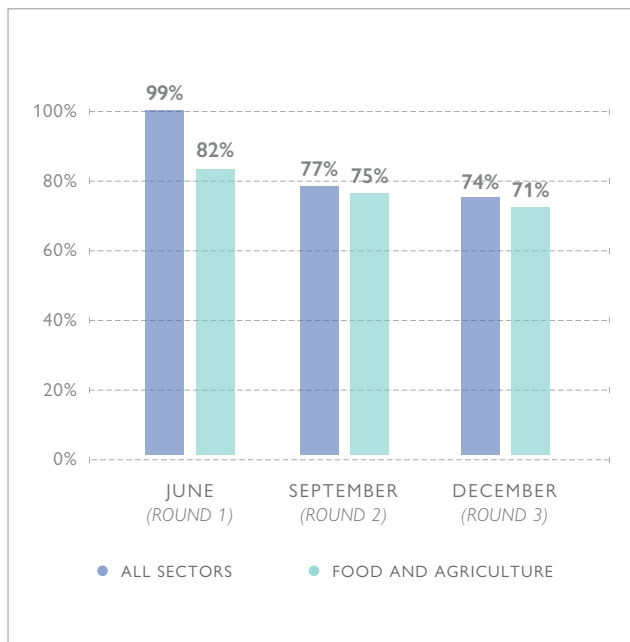
Note: The percentage for all sectors is calculated by excluding the 201 SME owners in food and agriculture.

Initially, in late June and early July (Round 1), 65 per cent of all sector and 58 per cent of food and agriculture firms reported being at risk of closing their doors permanently (see Figure 5), likely due to the movement restrictions put in place to stop the spread of COVID-19 and related changes in buying behavior. Among the SMEs that reported being at risk of closure, around one-third in the food and agriculture sector as well as all sectors reported that the shutdown would take place after six or more months (see Figure 6).

Over the year, the reported risk of closure decreased. By December (Round 3), the risk reduced by half compared to late June and early July (Round 1) for all sectors. The reported risk was consistently lower for the food and agriculture sector (see Figure 5). By December, the uncertainty among SME owners had increased regrading when the shutdown would occur, with 57 per cent in all sector and 62 per cent in food and agriculture indicating they did not know (see Figure 6).

Figure 5. % of SME Owners Reportedly at Risk of Permanent Closure

Note: The percentage for all sectors is calculated by excluding the 201 SME owners in food and agriculture.

Figure 6. Reported Risk of Permanent Shutdown: Estimation on When It Could Occur
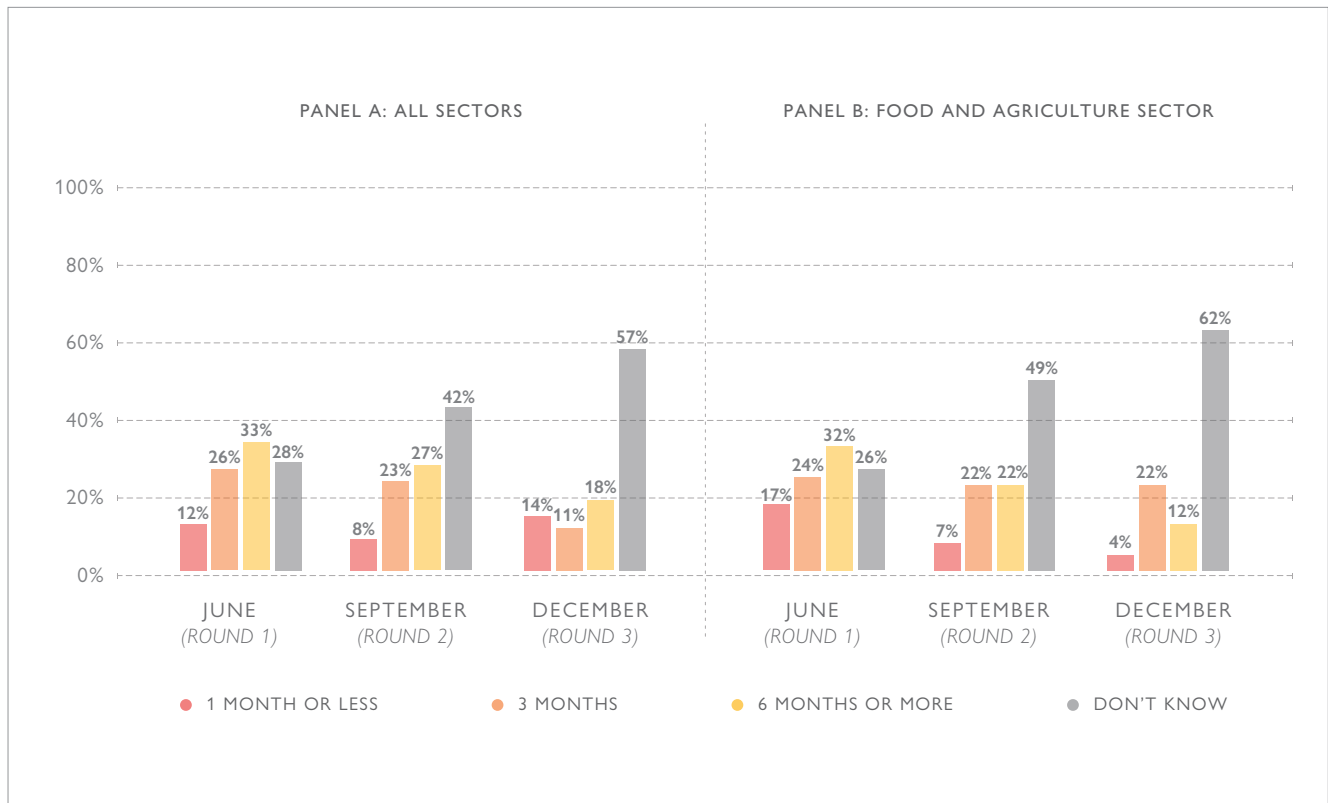
Note: Percentages are only among firms that reported a risk of permanent closure.

About 6 out of 10 SME owners incurred debt after the pandemic and strict movement restrictions started in March 2020.[16] The number of firms that incurred debt due to COVID-19 was 83 per cent in September (Round 2) and 82 per cent in December (Round 3). In June (Round 1), firms in the food and agriculture sector reported in slightly higher numbers that they had existing financial commitments compared to December (47% in June compared to 42% in December). No difference was observed between all sectors and food and agriculture in terms of rates of incurring debt as well as incurring debt due to COVID-19 in 2020 (see Figure 7, Panels A and B).[17]

Those who incurred debt due to COVID-19 mostly borrowed money informally from friends or family, while formal channels were barely used by the Iraqi firms in the sample. For example, 60 per cent of the surveyed firms that took on debt due to COVID-19 borrowed money from friends or family in June (Round 1), 78 per cent in September (Round 2), and 100 per cent in December (Round 3). Formal debt, such as bank loans and credits, was much less common than informal debt (likely in part related to the limited opportunities for seeking formal credit). Only 17 per cent of the SME owners used formal financial instruments by June and 10 per cent by December (see Figure 8, Panel A). The trend is similar for the surveyed businesses in the food and agriculture sector (see Figure 8, Panel B).[18]

16 In June (Round 1), firms were asked whether they incurred debt after the beginning of lockdown measures bur were not asked if it was due to COVID-19. In September (Round 2) and December (Round 3), firms were asked directly if the debt they incurred was due to COVID-19.

17 In Rounds 1 and 2, debt included micro-finance loans, bank loans, and borrowing money from friend or family due to COVID-19. In Round 3, no firms claimed they took on any micro-finance loans or bank loans, thus the debt in Round 3 only includes borrowing money from friends or family due to COVID-19.

18 When looking at the time periods both before and during COVID-19, the most-used formal channel to access to debts was deferred cheques (15%), followed by bank loans (0.3%), and bills of exchange (0.2%).
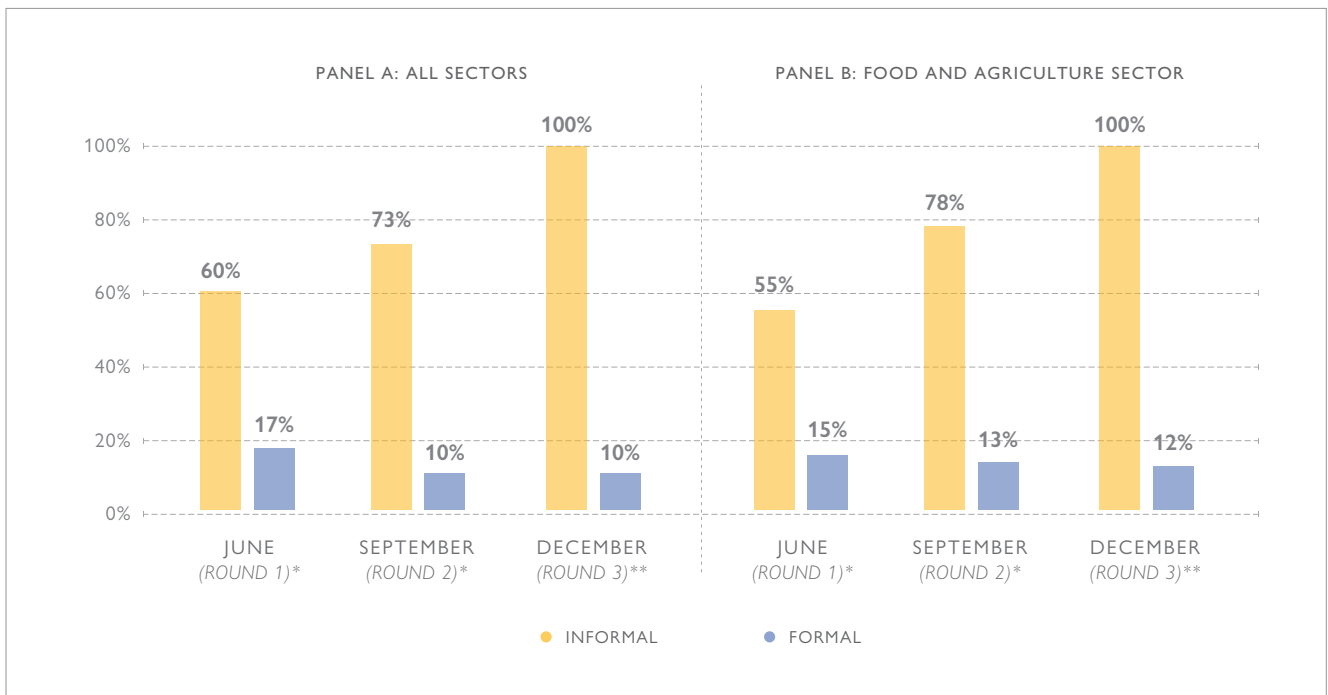
Figure 7. SMEs with Financial Commitments (Debt)
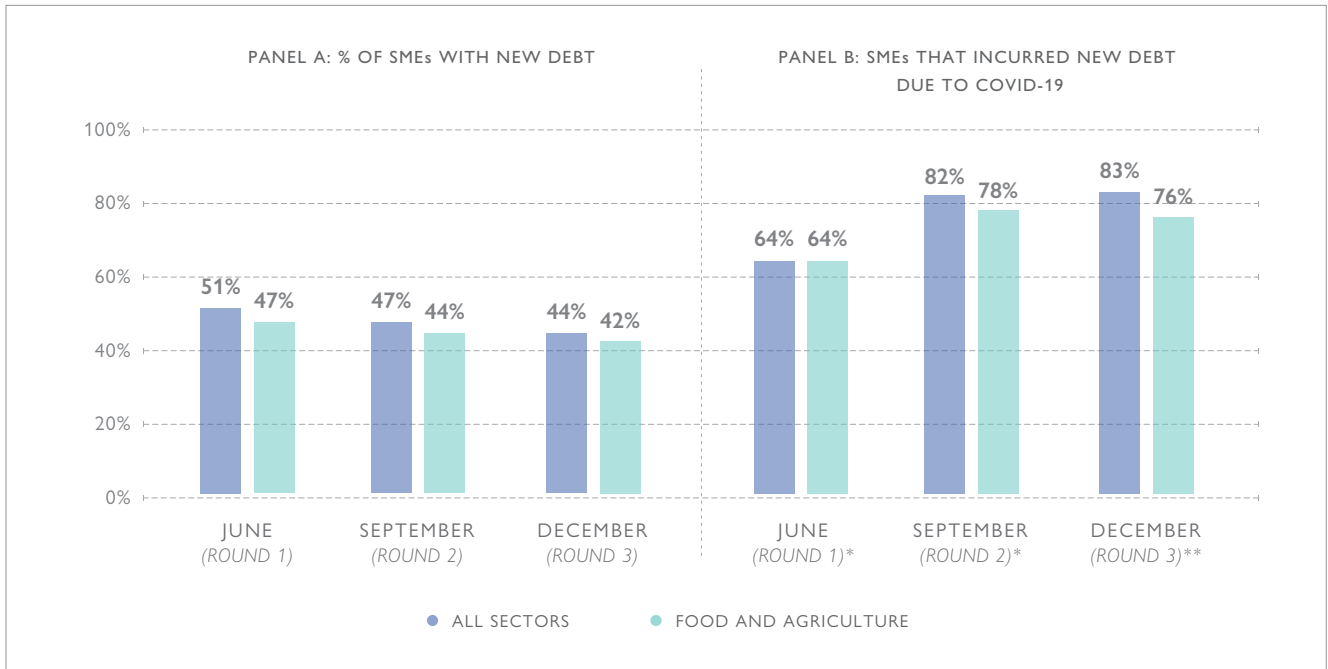
* Rounds 1 and 2 show the percentage of firms that incurred debt from micro-finance loans, bank loans, and borrowing money from friend or family due to COVID-19.

** Round 3 shows firms that incurred debt from borrowing money from friends or family due to COVID-19. No firms reported incurring debt in the form of micro-finance or bank loans.

Figure 8. Formal and Informal Financial Commitments Incurred Due to COVID-19

Notes: Multi-select question. Formal debt includes micro-finance loans, bank loans, bills of exchange, and open letters of credit. Informal debt includes borrowing money from friend or family.

* Rounds 1 and 2 show the percentage of firms that incurred debt from micro-finance loans, bank loans, and borrowing money from friend or family due to COVID-19.

** Round 3 shows firms that incurred debt from borrowing money from friends or family due to COVID-19. No firms reported incurring debt in the form of micro-finance or bank loans.

SME owners adopted different strategies to cope with the COVID-19 crisis during the study period. The switch from laying off employees to altering the production process could account for some of the slow labor market recoveries after lockdowns related to the pandemic started.

The top coping strategy in the panel study is the same for all sectors, including the food and agriculture sector. The most-used strategy in June (Round 1) was temporarily reducing the number of employees by not paying salaries (34%). Three months later, the most reported approach was to request leniency in paying financial responsibilities (32%), and five months later, increased marketing efforts (26%) (See Figure 9). Online sales is a key strategy for facing the reduction in economic activity created by the COVID-19. Although the proportion of SMEs using online sales doubled, it remained low by the end of 2020 (see Box 3).

BOX 3. SUSTAINABLE DEVELOPMENT GOAL #17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Indicator 17.8.1: Proportion of individuals using the Internet

Estimates of internet penetration in Iraq range between 60 and 75 per cent. However, the use of online sales among SMEs remains low. By the end of 2020, 17 per cent of the surveyed SMEs reported using online sales (an increase from 9 per cent in June).

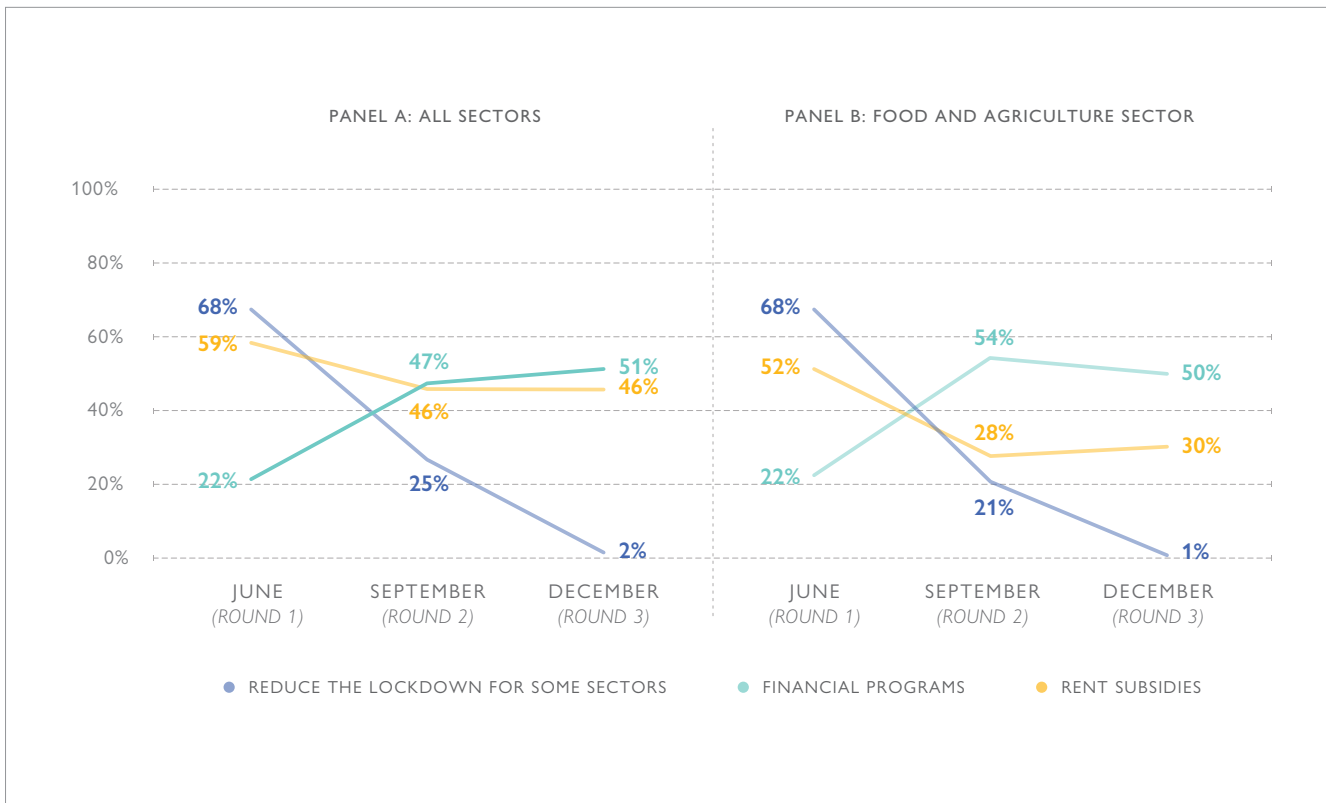Source: Internet World Stats; Digital 2021: Iraq.

Figure 9. Top Strategies Adopted to Cope with the COVID-19 Crisis
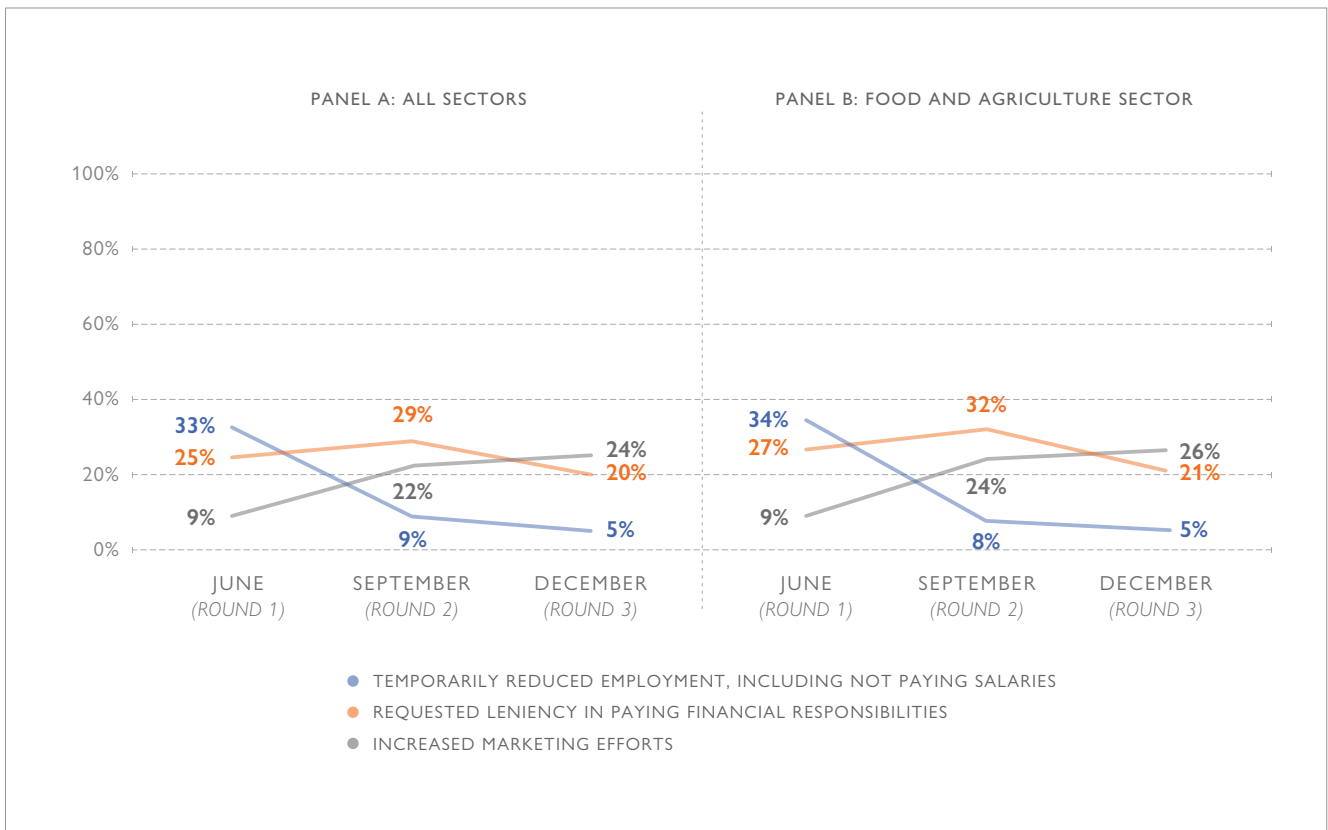
Note: Multi-select question. The percentage for all sectors is calculated by excluding the 201 SME owners in food and agriculture.

Figure 10. Most-Desired Government Support Among SMEs to Help Cope with the COVID-19 Crisis

Note: Multi-select question. The percentage for all sectors is calculated by excluding the 201 SME owners in food and agriculture.

Two months after the pandemic started, more than half of SME owners stated that the reduction of lockdown measures will be the best government aid to reduce the negative financial impact of the COVID-19 crisis. However, once the lockdowns loosened, providing financial programs, such as no interest credit lines or credit guarantees, became the most-desired government support among businesses (see Figure 10). Support for self-employed workers was the second most-desired aid from the government in August (Round 2) (49%) and November (Round 3) (45%). At the beginning of the economic crisis associated with COVID-19, half of the surveyed SMEs reported rent subsidies as a desired government support, the second most-desired aid in this period, and 30 per cent by the end of 2020.

BOX 4. SUSTAINABLE DEVELOPMENT GOAL #9:
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Indicator 9.3.2:
Proportion of small-scale industries with a loan or line of credit

Among SME owners who incurred new debt during the pandemic, borrowing informally was much more common than borrowing formally. About 36 per cent of business owners borrowed money from friends or family, of which 80 per cent said the need was due to the financial impact of COVID-19. Less than two per cent of the businesses took out formal credit (a microfinance or bank loan).
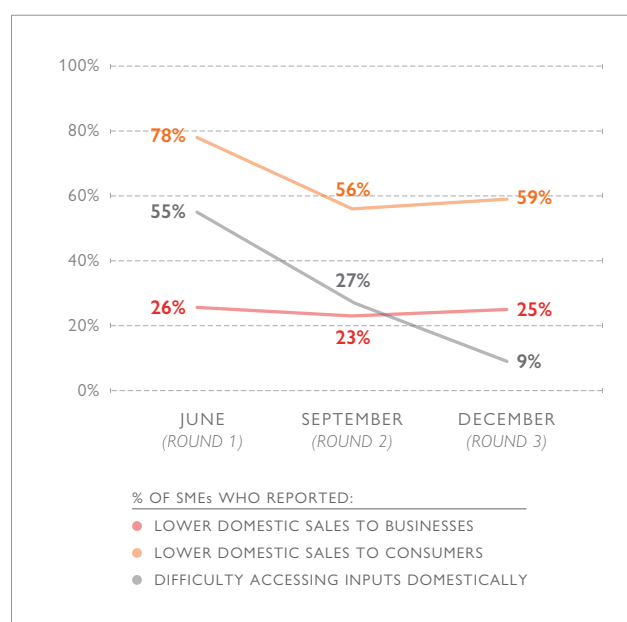
SUPPLY CHAIN INTERRUPTIONS

SMEs witnessed significant reductions in the supply of inputs and sales in 2020. Within the first months of the pandemic, 78 per cent of SMEs reported lower domestic sales and 55 per cent reported difficulties in accessing inputs domestically.

The proportion of SMEs reporting lower domestic sales decreased from the initial 78 percent in June and July (Round 1), but still remained high throughout the year: 56 per cent in September (Round 2) and 59 per cent in December (Round 3). SMEs slowly gained more access to inputs throughout the year, as COVID-19-related movement restrictions eased. From the initial 55 per cent reporting difficulty accessing inputs in June and July, 27 per cent reported difficulties in September and only 9 per cent in December (Round 3, see Figure 11).

The market for raw materials contracted by half after the COVID-19 crisis started. The surveyed SMEs reported a decrease in the demand and supply of their most-used input (on average 58 per cent of all-sector SMEs and 50 per cent of food and agriculture SMEs). Between June (Round 1) and September (Round 2), the demand and supply for raw materials had a modest recovery. However, SME owners did not change the supply chain during the study period. The ranking of the top ten most-used inputs among the SMEs in this study did not change over the course of the pandemic in 2020 (from June to December, see Table 4).

Figure 11. Effect on Sales and Access to Inputs

% OF SMEs WHO REPORTED:
- LOWER DOMESTIC SALES TO BUSINESSES
- LOWER DOMESTIC SALES TO CONSUMERS
- DIFFICULTY ACCESSING INPUTS DOMESTICALLY

Note: Multi-select question.

Table 4. Top Ten Most Commonly Used Inputs Among SMEs

INPUT CATEGORY DESCRIPTION	# OF FIRMS
Wood and Articles of Wood; Wood Charcoal	59
Food Materials	56
Iron and Steel	55
Meat and Edible Meat Offal	50
Articles of Stone, Plaster, Cement, Asbestos, Mica or Similar Materials	46
Plastics and Articles Thereof	41
Products of The Milling Industry; Malt; Starches; Inulin; Wheat Gluten	37
Cereals	34
Mineral Fuels, Mineral Oils and Products of Their Distillation; Bituminous Substances; Mineral Waxes	33
Electrical Machinery and Equipment and Parts Thereof; Sound Recorders and Reproducers, Television Image and Sound Recorders and Reproducers, And Parts and Accessories of Such Articles	33

Note: Inputs were classified into 108 categories using the Harmonized Commodity Description and Coding System. See Footnote 5 on page 5.

LABOR AND REVENUE

LABOR

The COVID-19 crisis deeply impacted businesses' capacity to retain employees. The average reduction in employment from February (pre-COVID-19) to June (Round 1) was 27 per cent.

This percent change is calculated by computing the percentage reduction of each firm and then averaging those percentage changes (rather than taking the percentage change of the average number of employees). Figure 12 shows the average number of employees at various points in 2020. The contraction in the labor market can be explained by the interruption in the economy created by the lockdown measures taken to reduce the spread of COVID-19.[19]

Figure 12. Average Number of Employees
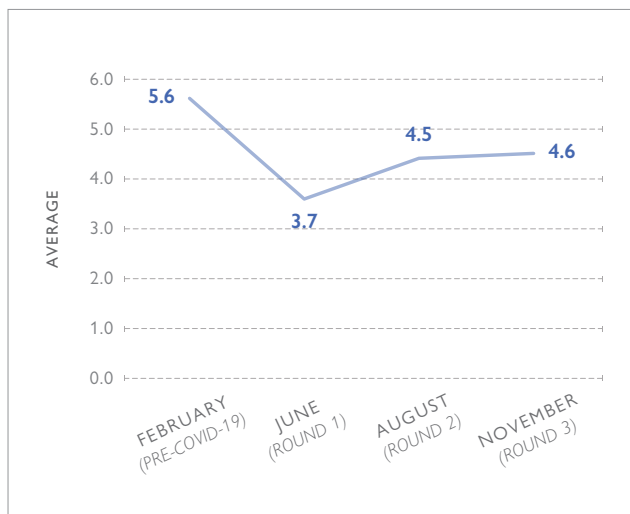
Although the opening up of the economy allowed surveyed SMEs to bring employees back after June (Round 1), employment has not yet reached pre-COVID-19 levels. Between August (Round 2) and November (Round 3), the increase in

the average number of employees was only four per cent, a demonstrated slowdown after compared to the 27 per cent increase in the average number of workers between June to August. The relaxation of the lockdown measures in Iraqi governorates is one of the explanations behind the recovery in employment. However, the slower improvement toward the end of the year (between August and November) highlights the challenge faced by SME owner to operate at levels seen before the pandemic started. The average decline between February (pre-COVID-19) and November is seven per cent.

The COVID-19 shock has affected women and men differently in the labor market. The closings of schools and daycare centers, for example, have increased time spent at home by mothers or single parents more than men in some countries.[20] The labor gap between women and men in Iraq is similar to countries such as Algeria, Egypt, and Libya.[21]

Before the pandemic started, the Iraqi labor force employed more men than women. In February (pre-COVID-19), there was 1 woman per 15 men working in the surveyed SMEs. Some sectors such as the automotive sector did not have any women in the workforce among the SMEs in this study. The gap increased by August (Round 2), reaching 1 woman per 19 men. By the end of 2020, however, the gap reduced to 1 woman per 13 men (see Figure 13).[22]

---

19 Similarly, Mahdee et al. (2020) found that 363 out of 484 clinicals in Iraq reported that the income declined in about 50%. Mahdee, A. F., Gul, S. S., Abdulkareem, A. A., & Qasim, S. S. B., Anxiety, Practice Modification, and Economic Impact Among Iraqi Dentists During the COVID-19 Outbreak, *Frontiers in medicine*, 7, 21 December 2020.

20 Collins et al. (2020) for instance, show that mothers with young children have reduced their work hours four to five times more than fathers in the US after the COVID-19 crisis started. Collins, C., Landivar, L. C., Ruppanner, L., & Scarborough, W. J., COVID-19 and the gender gap in work hours, *Gender, Work & Organization,* 2 July 2020.

21 International Labour Organization, "Gap in labour force participation," 2020.

22 Doepke, M., & Tertilt, M., "Families in macroeconomics," in *Handbook of macroeconomics* (Vol. 2, 1789-1891), *Elsevier*, 2016.

Figure 13. Gender Gap in the Labor Market: Number of Males Employed Per One Woman

FEBRUARY
(PRE-COVID-19)

JUNE
(ROUND 1)

AUGUST
(ROUND 2)

NOVEMBER
(ROUND 3)
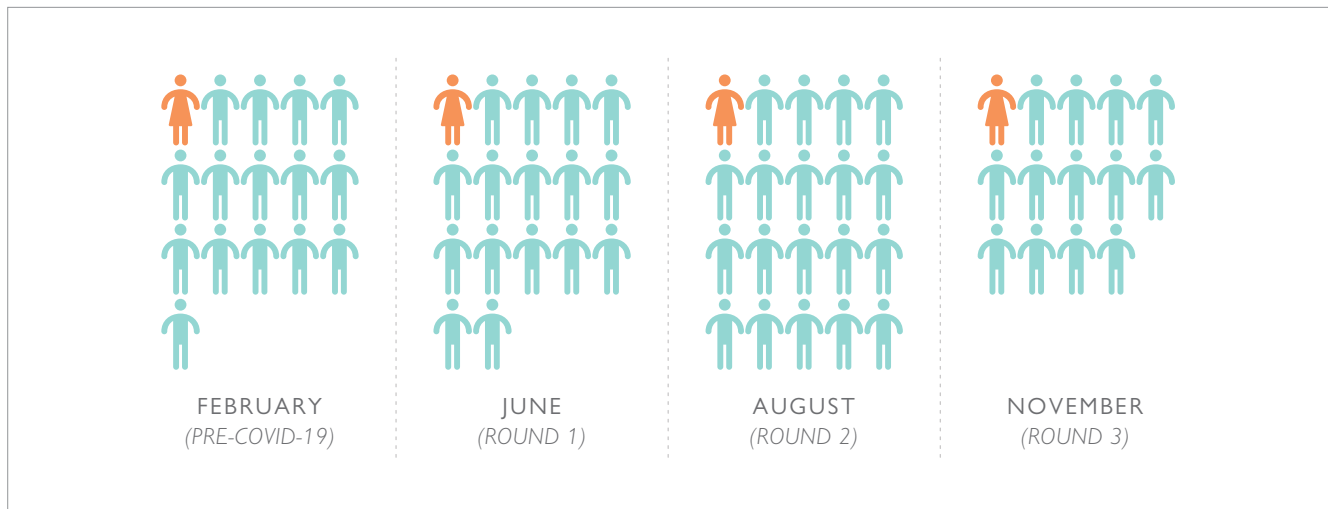
REVENUE

SMEs suffered drastic reductions in monthly revenue in 2020. Average monthly revenue dropped from $6,084 in February to $2,008 in April. As in the labor market, the recovery from the current crisis has been slow during the study period. By October (Round 3), the average monthly revenue was about half of that of February, before the pandemic started. For the SME owners in the sample, the revenue has not reached the pre-COVID-19 levels (see Figure 14).

The initial negative shock in revenues was on average 67 per cent when comparing February and April. The improvement in the economic conditions explains the six per cent increases in revenues between April and May, and 44 percentage points more comparing May and July. However, the revenue of the surveyed SMEs slightly decreased between June and August (on average by -1%), then increased between August and September (13%), and did not change between September and October (see Figure 14).[23]

Figure 14. Average Monthly Revenue Among SMEs

---
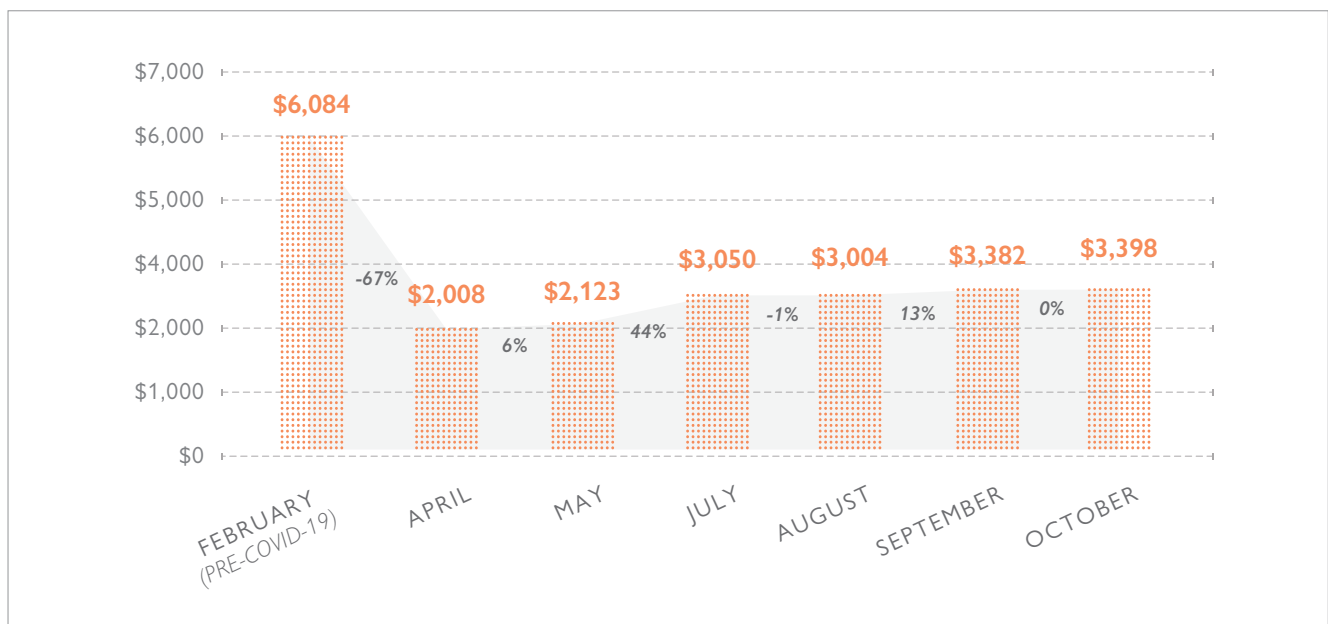
23 While reported monthly revenue decreased from $6,084 to $3,398 on average among firms, the percentage change of each individual firm was on average -23%

IMPACT OF LOCKDOWNS AND CLOSURE OF BORDER CROSSING POINTS

The impact of the restrictions in mobility outside the home taken to reduce the COVID-19 outbreak has been heterogeneous across governorates in Iraq. Firms in 11 out of the 15 Iraqi governorates where surveys were conducted saw a decline in employment, 12 saw a decline in revenue, and 14 saw a decline in production between February (pre-COVID-19) and the end of 2020 (see Table 5). Diyala saw the highest reduction in employment between February (pre-COVID-19) and November (Round 3) (-38%), followed by Kerbala (-32%), and Najaf (-27%). Conversely, Sulaymaniyah (13%), Baghdad (8%), and Salah al-Din (1%) had an increase in employment compared to employee numbers before the pandemic.

Among the 12 governorates that experienced a decline in revenue on average, Diyala and Kerbala experienced the highest decline in revenues at -50 per cent. Kirkuk, Ninewa, and Salah al-Din were the only governorates that witnessed an average increase in revenue between February (pre-COVID-19) and October (Round 3). Kirkuk witnessed an average increase of 197 per cent in revenues; however, the responses of firms varied widely. Half of the firms reported a decline in revenue, on average of 55 per cent. Among the half that reported an increase in revenue, 20 per cent of those reported an increase of 100 per cent or more.

The COVID-19 shock impacted many the production levels of firms in most governorates compared to employment and revenue. Between September and December, Erbil reported the highest decline in production (-75%), followed by Diyala and Kerbala (-54% and -53% respectively). The surveyed SMEs in Dohuk are the only group that reported an average increase in production in this time period (see Table 5).

Table 5. Effect of COVID-19 Across Firms and Related Restrictions by Governorate (Average % Change)

GOVERNORATE	EMPLOYMENT FEBRUARY TO NOVEMBER (PRE-COVID-19 TO ROUND 3)	MONTHLY REVENUE FEBRUARY TO OCTOBER (PRE-COVID-19 TO ROUND 3)	PRODUCTION[a] SEPTEMBER TO DECEMBER (ROUND 2 TO ROUND 3)
Diyala	-38%	-50%	-54%
Kerbala	-32%	-50%	-53%
Najaf	-27%	-29%	-44%
Babylon	-24%	-19%	-29%
Basrah	-13%	-38%	-34%
Erbil	-11%	-43%	-75%
Missan	-8%	-35%	-46%
Dohuk	-3%	-23%	11%
Thi-Qar	-3%	-17%	-28%
Anbar	-2%	-41%	-9%
Kirkuk	-2%	197%	-5%
Ninewa	0%	13%	-1%
Salah al-Din	1%	70%	-17%
Baghdad	8%	-9%	-4%
Sulaymaniyah	13%	-1%	-16%

Note: Percentage change is calculated by averaging the percentage changes of each SME, which may differ from the percentage change between the two averages shown.

[a] Change in production is calculated between Rounds 2 and 3 because firms were asked about change in production since the last survey, rather than since before lockdowns began.

BOX 5. SUSTAINABLE DEVELOPMENT GOAL #1:
End poverty in all its forms everywhere

Indicator 1.5.2:
Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)

On average, 8 out of 10 SME owners in the sample faced a decline in production in 2020, which will have direct implications for the contraction of the economy, as sales, revenue, and incomes are all adversely affected.

The principal strategies taken by many countries in the world including Iraq to cope with the spread of the COVID-19 outbreak are national lockdowns and border closures.[24] Although all Iraqis have faced some level of quarantine measures and border closures, the degree and frequency of these measures varied across governorates and in neighboring countries. The experience has also been different from sector to sector, with strategic sectors such as food and agriculture receiving exemptions that allowed for a relatively smooth supply flow to areas of demand. The lockdowns started around the middle of March 2020 in 12 out of 15 governorates. In the other three governorates, the restrictions in movements started one month later. By September (Round 2), all the governorates stopped using lockdowns as an approach to cope with the pandemic. Between March (beginning of the lockdown period) and September (Round 2), six governorates have more partial than full lockdowns. Salah al-Din saw the greatest variation between partial to full mobility restrictions during the study period (see Figure 15).[25]

Figure 15. Number of Lockdowns Implemented by Governorate Between March and December 2020
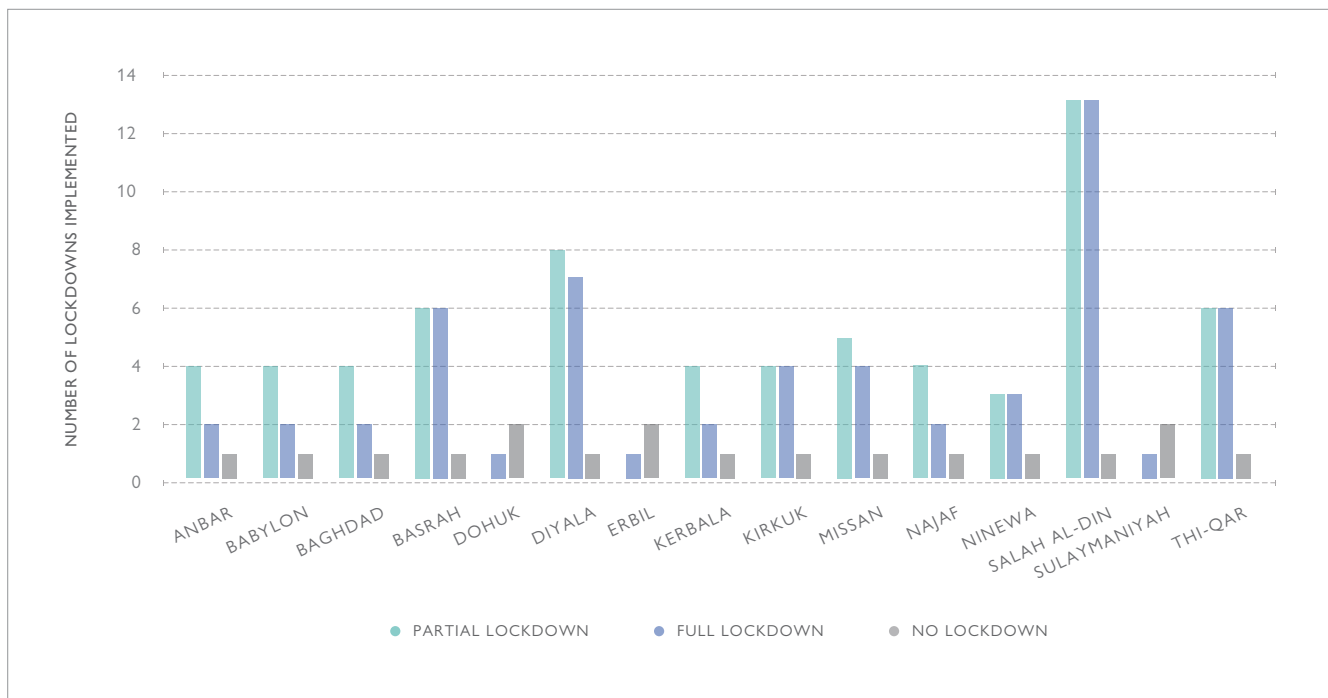
Note: The number of days of each lockdown varies by governorate.

Eight of Iraq's governorates also have border crossings points into different countries and seaports. The closure of borders started in mid-March and continued until the end of 2020. Some of the crossing points were closed for the entire length of the study, for example one between Anbar and Syria. Similarly, Basra's border crossing point with Kuwait was closed most of 2020. All the crossing points between Ninewa and Syria were also closed after the COVID-19 outbreak. On the contrary, the crossing point to Iran from the Kurdish Region of Iraq was never completely closed. The

---

24 World Health Organization, <u>COVID-19 Strategy Update Report</u>, 14 April 2020.

25 Field research teams also collected data on lockdown measures in all governorates. Data on border crossing points was part of IOM Iraq's <u>Cross Border Monitoring</u> from its Displacement Tracking Matrix (DTM). Basra, Dohuk, Erbil, Ninewa, Sulaymaniyah, Thi-Qar experienced more full lockdowns compared to partial ones. More than half of the border points were closed in Babylon, Baghdad, Diyala, Erbil, Kerbala, Kirkuk, Missan, Najaf, Ninewa, Salah al-Din, and Thi-Qar from mid-March and early July.

status began as commercial transit only and transitioned to being fully open. Roughly half of the border crossing points with Missan, Anbar, and Diyala were closed during the study period (59%, 48%, and 43% respectively).

According to the statistical model, between February and June, the firms located in governorates most affected by lockdowns and closure of border crossing points faced a

reduction in monthly revenue greater than the firms in governorates least affected by the same movement restrictions.[26,27] During the time period after lockdowns eased and the border crossing points started to operate, the difference in change in revenue between firms in governorates more or less affected by mobility restrictions was no longer statistically significant.

Figure 16. Effect of Lockdowns and Closure of Border Crossing Points[28]
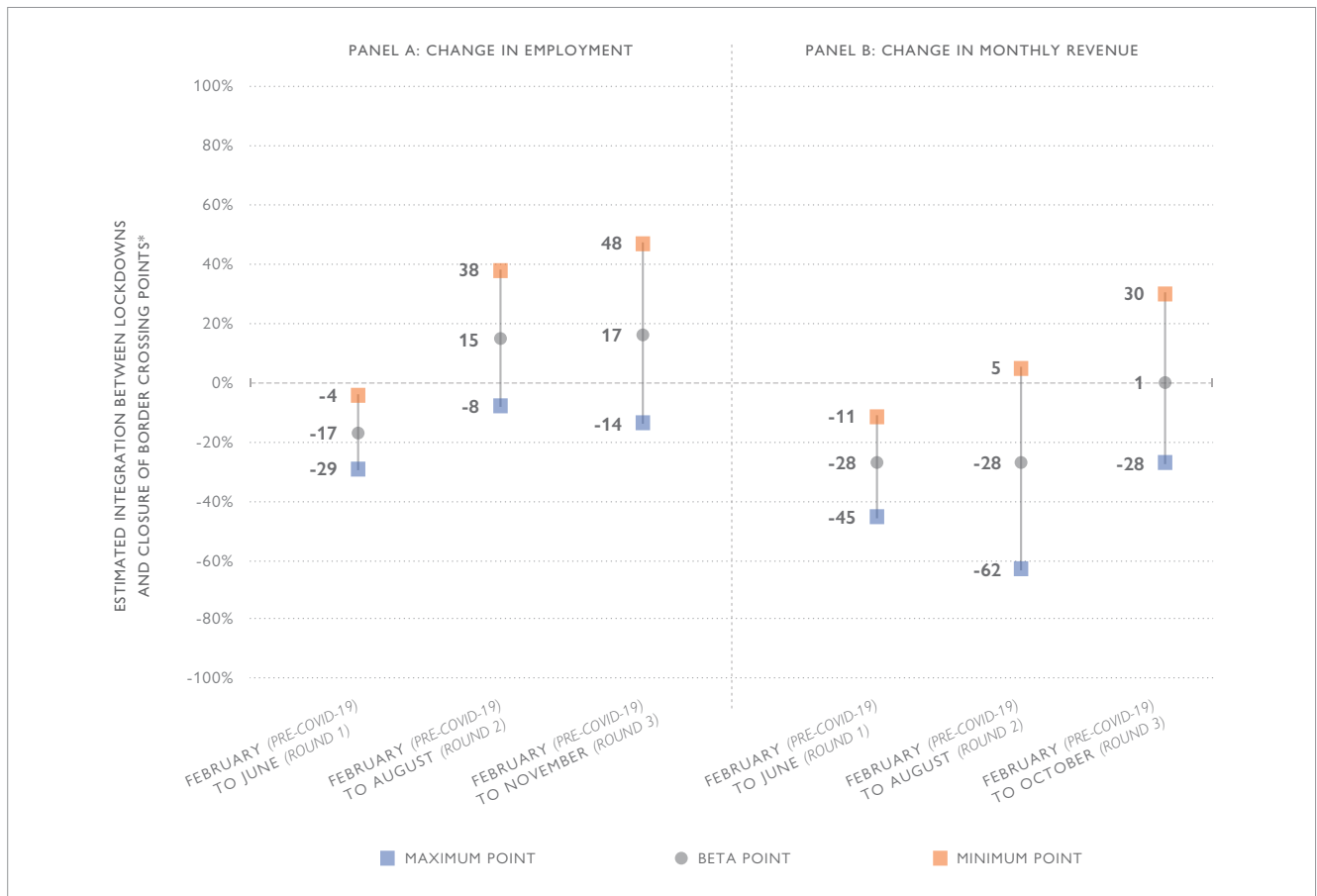
Note: The figures present the estimated interaction between governorates with more full lockdowns than partial lockdowns and governorates with at least one-third of the border crossing points closed. The dots are the average effects of the interaction in the dependent variable, change revenue in Panel A and change labor in Panel B. The vertical lines represent confidence intervals of 95% (meaning the probability that the measured parameter will fall between a set of values over a certain number of times). An estimated interaction is not statistically significant when the confidence interval contains zero. The model includes the following controls: manager woman, the manager is less than 35 years old; business not registered in the national authority; local, regional, and national trade; employment and revenue before the pandemic. Robust standard errors and cluster errors at the governorate level.

* The y-axis denotes percentage point change.

26 The least affected governorates have more partial than full lockdowns and less than one-third of cross points were close. Furthermore, the most affected governorates have more full than partial lockdowns and more than half of the border points were close.

27 These are not simple differences between two groups. The analyzed coefficient is the interaction between two variables in the difference in differences model where the dependent variables is change between revenue (Figure 16, Panel A) or employment (Panel B) between February (pre-COVID-19) and late June (Round 1). Variable 1 is equal to one when governorates have more partial than full lockdowns. Variable 2 is equal to one when governorates have fewer than one-third of the border crossing points closed (see the first line in Figure 16, Panel A). The parameters present correlation rather than causation. Comparing pre-COVID-19 and a few months into COVID-19, firms in the governorates most affected by lockdowns and closures of border crossing points faced a reduction in monthly revenue of 17 percentage points greater and a reduction in employment of 28 percentage points greater than the governorates least affected by the same movement restrictions.

28 Clustered standard errors are measurements that estimate the standard error of a regression parameter in settings where observations may be subdivided into smaller-sized groups ("clusters") and where the sampling and/or treatment assignment is correlated within each group. A. Colin Cameron and Douglas L. Miller, "A Practitioner's Guide to Cluster-Robust Inference," Journal of Human Resources, March 2015, 50: 317–372.

Similarly, the reduction in employment was worse among firms in governorates with full lockdowns and fewer open border crossing points than firms in governorates with fewer mobility restrictions. As in the case of revenue, once the lockdowns were relaxed, the difference in employment was no longer statistically significant between firms in governorates with more and fewer mobility restrictions (see Figure 16, Panel B).

In other words, while lockdowns were the harshest, firms in governorates with stricter lockdowns faced greater reductions in revenue and employment. Once lockdowns began to ease nationwide, the difference in revenue in governorates with strict and less strict lockdowns was no longer found to be statistically significant. Hence, there is a correlation between high levels of lockdowns and a reduction of revenue and labor among the SMEs in this survey, while low levels of lockdowns did not affect the revenue and labor in a statistically significant manner among the surveyed SMEs (see Figure 16, Panel A).[29]

WAY FORWARD

Iraq was in a fragile economic and political situation before the COVID-19 outbreak. Alongside most of the world, Iraq engaged in necessary movement restrictions to curb the spread of the virus. Inevitably, economic activity was hindered, including for small- and medium-sized enterprises throughout the country.

As of early 2021, Iraq has signed a contract to purchase enough doses of the Pfizer-BioNTech vaccine for 750,000 people and reported Pfizer will help train health staff in administering the vaccine, once the doses arrive in the beginning of 2021.[30] Iraq has also reserved 17.5 million doses of the AstraZeneca vaccine.[31] Vaccine campaign timelines, however, remain undefined. Therefore, businesses will continue to be affected directly by limits on business activity, as well as indirectly by effects on trade and a weakening of customers' purchasing power. Additionally, the risk of another wave of high COVID-19 cases in Iraq could lead to another period of lockdowns. Although lockdowns will be necessary to curb the spread of the virus, SMEs will once again be at risk of negative economic impacts due to movement restrictions, as was observed in 2020. As observed in the first round of this study while the most lockdowns were taking place, areas with more lockdowns and closed border crossing points suffered from greater negative impacts on economic activity.

Working toward the return of the economy to pre-COVID-19 levels has been slow and will not be possible without more resources and policies around business operations while the pandemic continues. Public, private, and humanitarian actors should use what was learned in 2020 to prepare to better support businesses as the pandemic continues, especially preparing for a severe rise in COVID-19 cases and a possible future set of lockdowns.

---

29 The R-squared values are as follows: Employment: Round 1, 0.04; Round 2, 0.03; Round 3, 0.06. Revenue: Round 1, 0.14; Round 2, 0.14; Round 3, 0.10.

30 Iraq agreed to purchase 1.5 million doses of the Pfizer-BioNTech vaccine (enough for 750,000 people) and is expecting the first shipments to arrive in February 2021. "Iraq agrees with Pfizer to import 1.5 million doses of COVID-19 vaccine," Reuters, 21 December 2020; مجلس الوزراء العراقي "لقاح كورونا يصل العراق مطلع الشهر المقبل," Rudaw, 10 January 2021. لرويداو: خصصنا ١٠٠ مليون دولار لشراء لقاحات كورونا ,Rudaw, 2 January 2021; "

31 لقاحات كورونا: ٥٠ مليون جرعة لمصر ونحو ١٨ مليونا للعراق, Arab 48, 25 December 2020.

IOM IRAQ

iraq.iom.int

iomiraq@iom.int

UNAMI Compound (Diwan 2),
International Zone,
Baghdad / Iraq

@IOMIraq

© 2021 International Organization for Migration (IOM)