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# The impact of COVID-19 on industries without smokestacks in South Africa

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## **Abstract**

The COVID-19 pandemic has hit several sectors of economies, including those in Africa particularly hard. The affected sectors include industries without smokestacks. The purpose of this brief is to conduct an early assessment of the effect of the pandemic on the economy, and specifically, the IWOSS sectors considered in the country case study, both in terms of the pandemic's current impact, as well as to present a view on the long-term sectoral impact.

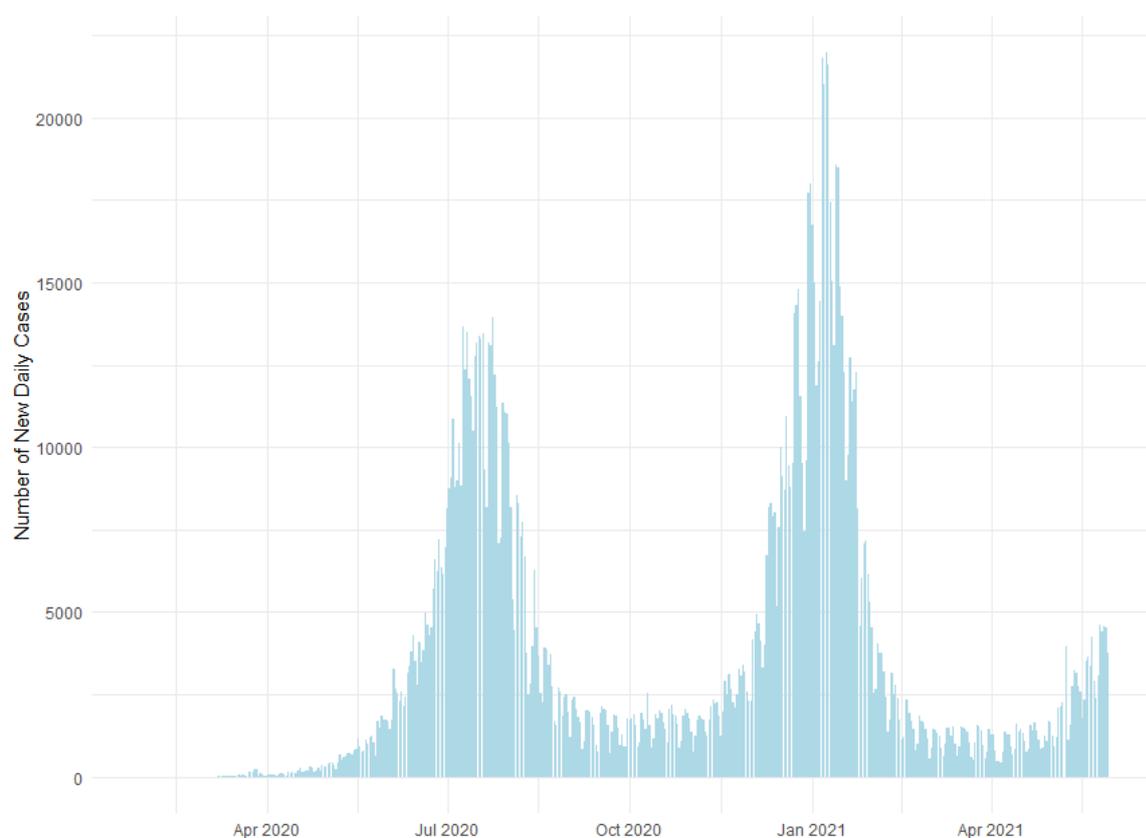
## 1 Introduction

The COVID-19 pandemic and South Africa's efforts to contain the COVID-19 pandemic have had a considerable impact on economic activity in the country. As of June 4, 2021, 1,686 million cases had been identified in the country, with close to 57,000 reported deaths (South African Department of Health, 2021).

Since the beginning of the pandemic, like many other countries, South Africa imposed varying restrictions in response to the pandemic. A National State of Disaster was declared on March 15, 2020, and the country was put under a “hard lockdown” on March 26, 2020 for five weeks. The lockdown was stringent—restricting mobility to essential travel only, prohibiting the sale of alcohol to take pressure off the health system, and making no allowances for non-essential activities outside the home. Most economic functions across the country came to an immediate halt, apart from a set of essential services including healthcare, security, agriculture, and the transport of selected goods.

At the time of this writing, South Africa is believed to be entering a “third wave” of infections; throughout this time, restrictions have varied as the number of infections in the country have fluctuated. Figure 1 shows the recorded number of COVID-19 infections for each day since the first case was identified, while Table 1 shows the dates when varying restrictions were instituted throughout the pandemic, and what each level of restrictions entailed.

**Figure 1. Daily recorded COVID-19 infections, South Africa, March 2020 – May 2021**



Source: South African Department of Health (2020, 2021).

The restrictions imposed since the initial lockdown have been less stringent but have been tightened when infection numbers have spiked, and healthcare facility capacities have become strained. This was the case in December 2020, when South Africa was placed in a higher level of restrictions rather than a lower level for the first time since the beginning of the pandemic. Vaccinations have yet to take place at a scale that would enable opening up of the economy with

minor or no restrictions in the near future. As of June 4, 2021, vaccinations had only taken place in a trial phase for healthcare workers and had started for individuals over the age of 60 in the broader population. Just under 1.27 million vaccine doses had been administered by June 4, 2021 (South African Department of Health, 2021). While the government aims to vaccinate all adults by February 2022 (Discovery, 2021), the threat of further waves (and associated restrictions on economic activity) remains for as long as vaccination numbers remain low and emerging variants of the virus raise concerns about efficacy of vaccines (Roberts, 2021).

**Table 1. COVID-19 alert levels and associated restrictions, March 2020 – March 2021**

Date	Level	Description of restrictions
March 27, 2020 - initially for 3 weeks, extended for two further weeks	Alert level 5 <sup>1</sup>	Only essential services and businesses are operating. No alcohol or cigarette sales are permitted, and citizens may not travel or attend any form of gathering (Turner, Le Grange & Nkgadima, 2021).
May 1, 2020	Alert level 4	Borders remain closed. No travel between provinces, except transportation of goods and under exceptional circumstances. Public transport capacity limitations. Range of goods allowed to be sold widened. Restrictions remain in place in certain sectors such as bars, conference and convention centers, and entertainment venues. No gatherings allowed (South African Government News Agency, 2020a).
June 1, 2020	Alert level 3	Opening of most economic sectors subject to health protocols and social distancing. High-risk activities remain prohibited. These include: restaurants, bars, and taverns (except for delivery or collection of food); accommodation and domestic air travel (except for business travel); conferences, events, entertainment, and sporting activities; and personal care services, including hairdressing and beauty services (South African Government News Agency, 2020b).
July 12, 2020	Alert level 3, adjusted	Restrictions adjusted to ban alcohol sales to alleviate pressure on the healthcare system. A 9pm to 4am curfew is also introduced, and family visits are prohibited (Turner, Le Grange & Nkgadima, 2021).
August 18, 2020	Alert level 2	Inter-provincial travel restrictions lifted. Ban on alcohol and tobacco products lifted. Family visits allowed. Gyms reopened. Gatherings limited to 50 people. Curfew between 10pm and 4am (Qukula, 2020).
September 20, 2020	Alert level 1	Most normal activity can resume, with precautions and health guidelines followed at all times.
November 11, 2020	Alert level 1, adjusted	Relaxation of international travel and alcohol trading restrictions eased (ENCA, 2020).
December 28, 2020	Alert level 3, adjusted	Curfew extended from 9pm to 6am; non-essential establishments to close by 8pm; masks mandatory in public; alcohol sale banned; 22 additional hotspot areas declared—beaches, parks and pools in hotspot areas to be closed. Limitations on gathering numbers (Davis, 2020).
March 1, 2021	Alert level 1, adjusted	Most normal activity can resume, with precautions and health guidelines followed at all times. Limitations on gatherings. Curfew 12am – 4am (Madisa, 2021).
May 31, 2021	Alert level 2, adjusted	Curfew adjusted to 11pm to 4am. Non-essential establishments to close by 10pm. Gatherings limited to a maximum of 100 people indoors and 250 people

<sup>1</sup> The alert level system was only explained later; however, using the later introduced levels terminology, this lockdown period corresponded to the strictest level of restrictions, Level 5.

		outdoors. Venues too small to accommodate these numbers with appropriate social distancing restricted to 50 percent capacity (South African Department of Health, 2021).
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In this brief, we discuss the impact of the pandemic and its associated restrictions on the South African economy, with a particular focus on how these measures impact industries without smokestacks (IWOSS). Specifically, we consider what the pandemic has meant, and will mean, for the potential of the four IWOSS sectors considered in our study [“Employment creation potential, labor skills requirements and skill gaps for young people: A South African case study”](#) (Allen et al., 2021). We start by considering the impact of COVID-19 on the broader South African economy in Section 2, before considering the impact on the four select IWOSS sectors in Section 3. We conclude by noting the implications of the COVID-19 pandemic for the recommendations made in our case study.

## 2 Impact of COVID-19 on the South African economy

Before the onset of the COVID-19 pandemic, the South African economy was already struggling. Two consecutive periods of negative GDP growth in the third and fourth quarters of 2019 meant that the economy entered a technical recession at the beginning of 2020. A multitude of reasons—such as an unstable electricity supply, low consumer and business confidence, the diversion of departmental funds to bail out state-owned enterprises, and a lack of structural reforms—have been cited to explain South Africa’s current economic malaise (Bureau of Economic Research, 2020; National Treasury 2020). The COVID-19 pandemic, and its associated restrictions on economic activity, thus placed further strain on an economy that was not performing well. These underlying reasons for the poor performance of the economy pre-pandemic are unlikely to be resolved in the short-term and are likely to also impact the country’s ability to recover from its COVID-induced economic shocks. In this section of this brief, we consider the impact of COVID-19 on an already ailing economy. We first consider the growth impact, before proceeding to consider the impact on employment. Finally, we consider what the outlook for the economy is for the future.

### 2.1 Impact of COVID-19 on GDP

The pandemic has had an impact on different sectors on the basis of two key factors: 1) Individual behavior changes toward restricting the spread of the virus, and 2) government imposed restrictions on activity (both in South Africa and abroad) to restrict the spread of the virus. While debate still exists on whether the severity of the restrictions and associated lockdowns are required (Reuters, 2020; Savulescu, 2020), it is clear that these restrictions, along with individual behavior changes, have had a great impact on economies around the world.

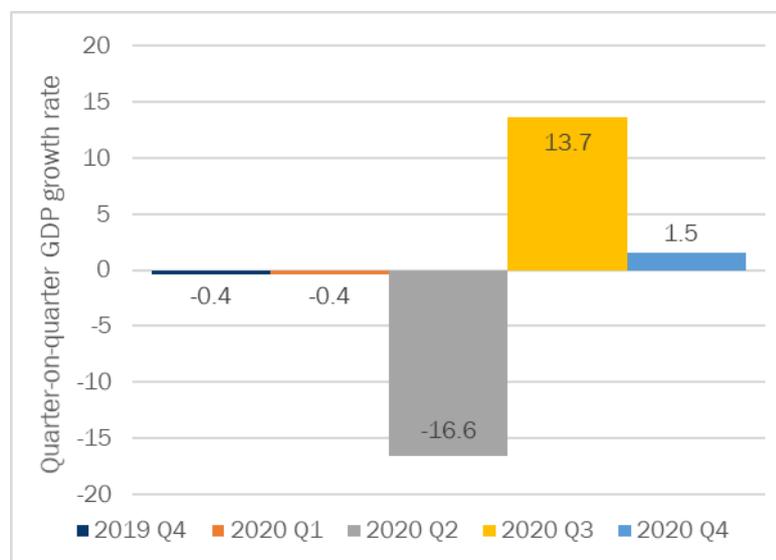
Given many sectors rely on human interaction, the presence of a virus that spreads through human contact will have a detrimental impact on behavior and, subsequently, economic activity. For other sectors, externally imposed regulations have created negative impacts. In this regard, the impact of the COVID-19 regulations on GDP growth is primarily a function of both the severity of the regulations and their length. Specifically, the more stringent the regulations and the longer the period that the regulations apply, the greater the expected negative effect on GDP.

Thus, the pandemic and the implementation of COVID-19-induced regulations represent a supply shock to the economy. Labor supply will be reduced through the spread of infections, with employees taking sick leave, affecting firm-level productivity. In addition, supply chains that involve the importing and exporting of goods are affected depending on the severity of the outbreak in other countries and of the host country. For example, at the onset of the pandemic, the European

Union banned the export of certain medical protective equipment in order to secure sufficient supply for their own countries (Bayer et al., 2020).

To better understand the depth of the economic shock on the South African economy, we examine the quarter-on-quarter GDP growth between Q4 2019 and Q4 2020.

**Figure 2: Quarter-on-quarter GDP growth rate, Q4 2019 - Q4 2020**



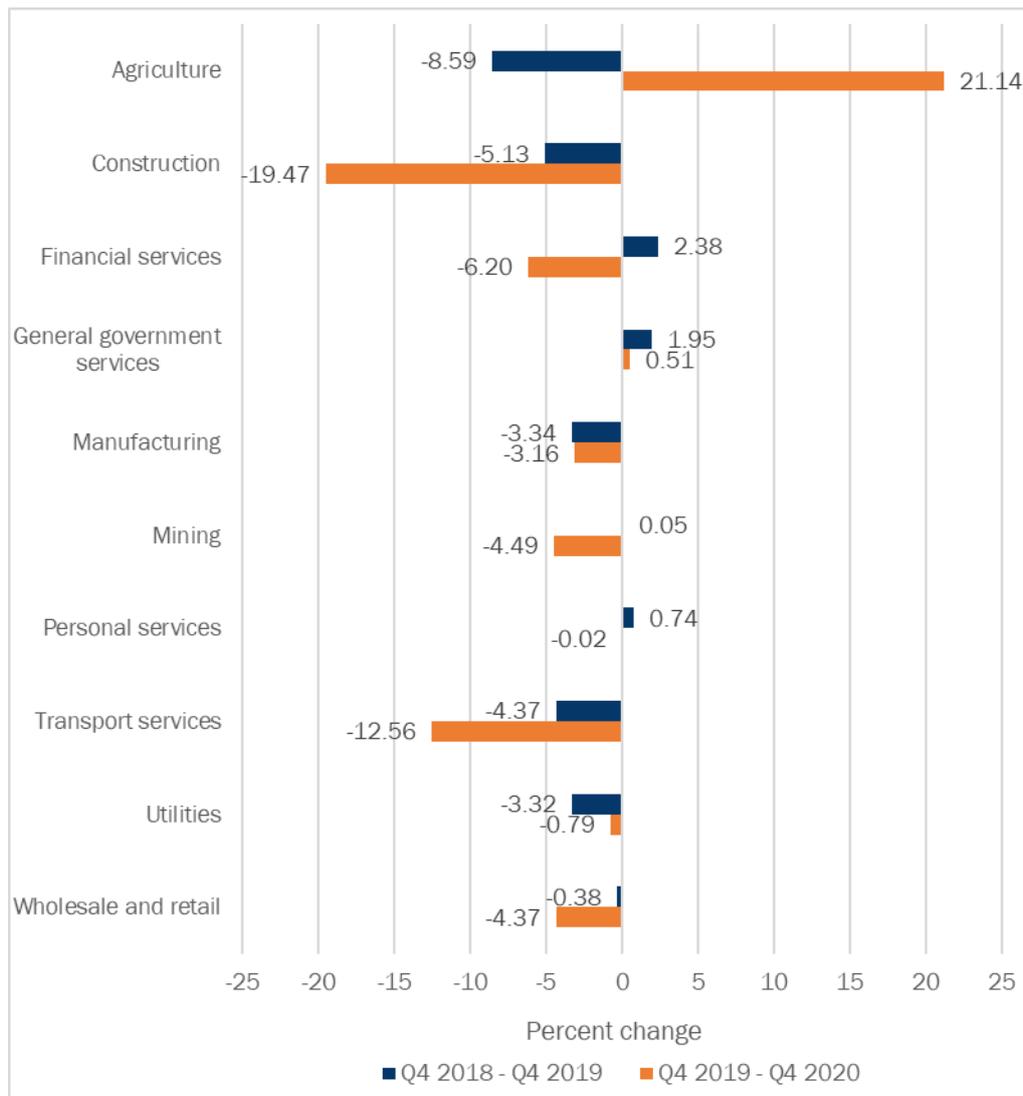
Source: OECD (2021), own calculations.

As previously mentioned, the economy was in a technical recession at the beginning of 2020; this economic malaise continued in the first quarter of 2020, with a recorded economic growth rate of -0.4 percent. The extent and severity of the lockdown is evident in the Q2 2020 GDP figures, with a decrease in economic activity of 16.6 percent compared to the previous quarter--the largest recorded drop in GDP in South Africa since 1960 (Statistics South Africa, 2020a). With a significant easing of restrictions at the beginning of the third quarter, there was a concomitant increase in economic activity. However, the magnitude of the increase in the third quarter was slightly below that of the magnitude of the decrease in the second quarter, indicating continued weakness in the South African economy. In the fourth quarter of 2020, there was further increase of 1.5 percent, indicating that the rebound of the South African economy was easing significantly.

We now turn to present the sectoral change in GDP that occurred over the last two years. Figure 3 reveals the change in GDP between Q4 2018 and Q4 2019 (pre-pandemic), represented by the blue bars and between Q4 2019 and Q4 2020 (during the pandemic), represented by the orange bars.

Notably, the major contrast between the two periods is the magnitude of the change. In the earlier period, the changes to GDP were within low single digits but, in the second period, three sectors (agriculture, construction and transport services) experienced double-digit changes to their GDP.

Second, many industries—such as construction, manufacturing, and transport services—were already shrinking before the pandemic and the pandemic accelerated the decline in such sectors. In other industries—such as financial and personal services—the growth recorded between 2018 and 2019 was reversed in the next period.

**Figure 3: Sectoral change in GDP, Q4 2018 – Q4 2020**

Source: South African Reserve Bank (2020), own calculations.

Note: Transport services refers to transportation and communications.

In contrast to all other sectors, the agriculture sector went from experiencing negative GDP growth between 2018 and 2019 to recording a substantial increase between 2019 and 2020. Sihlobo (2020) asserts that this growth was due to a combination of a big harvest, the ability of the sector to operate at all levels of lockdown, and strong export growth in South Africa's key export markets in the rest of Africa, Asia, and the European Union.

While the GDP data does not allow us to examine the GDP changes in our IWOSS sectors of interest, we can provide a general idea of whether these sectors expanded or contracted. The expansion of agriculture suggests that there was not a major impact on **horticulture**, while the contraction in manufacturing may be indicative of a decline in the **agro-processing** sector. However, to the extent that there was less disruption in the supply chain to agro-processing due to no major impact on agriculture, it is possible that the impact on agro-processing may have been subdued in comparison to the broader manufacturing sector.

In contrast to the previous two IWOSS mentioned, the **logistics** sector was adversely affected by lockdown regulations—as illustrated by a decline of over 12 percent between 2019 and 2020 in the transport and communications sector. To an extent, this decline was to be expected given

international border (air freight) and port (sea freight) closures that remained in place for an extended period of time. Furthermore, as previously described, some countries initiated export bans, which led to the volume of trade dropping across countries. Internally, though, road and train freight within South Africa was less affected as lockdown regulations were not as stringent compared to other modes of transport. Indeed, consumers shifted to online shopping over lockdown, which would have increased economic activity in the road freight sub-sector.

Finally, the **tourism** sector is spread over many sectors—from wholesale and retail through to the personal and transport services—so it is difficult to ascertain an accurate representation of the overall decline in the sector. However, given the local lockdown restrictions—which prevented international leisure travel into South Africa between March and September 2020—and the current lockdown restrictions of other countries, particularly in South Africa’s major European markets, it is reasonable to state that the tourism industry has been adversely affected by the COVID-19 pandemic, with tourists unable to visit the country, and local tourists also being restricted in movement. Page (2021) illustrates these adverse effects on tourism by noting that tourism-dependent economies such as Mauritius (-14.9 percent), Seychelles (-12.0 percent) and Cabo Verde (-6.6 percent) experienced substantial declines in GDP growth in 2020.

Section 2.2 below considers the employment changes in the economy, as well as in those IWOSS, and provides further evidence of the economic impacts of the pandemic. In Section 3, we consider the impact of the pandemic on the IWOSS sectors of interest in more detail.

## 2.2 Changes in employment

Linked to output or GDP expansion is that of employment. To the extent that growth in sector requires labor as an input, expansion in output will lead to an increase in employment and vice-versa. Similar to the previous section, we present the percentage change in employment over two time periods: Q4 2018 – Q4 2019 (pre-pandemic period) and from Q4 2019 – Q4 2020 (during the pandemic). In contrast to GDP, however, employment data enables us to differentiate between the IWOSS and non-IWOSS sectors, facilitating comparisons between the two broad sectors. Moreover, while the GDP data includes the entire economy, our analysis is limited to formal, private sector employment, which captures just over 50 percent of the employed population in South Africa (Statistics South Africa, 2021b).

We present two graphs in Figure 4: the left-hand panel shows the percentage change in employment between Q4 2018 and Q4 2020 and the right-hand panel shows the absolute change in employment over same period. We observe that, in the pre-pandemic period, positive employment growth was recorded in five of the eight IWOSS sectors, with particularly strong employment growth in horticulture (9.79 percent), commercial agriculture (8.21 percent) and tourism (6.17 percent). However, the absolute jobs growth in horticulture (33,000) and commercial agriculture (17,000) were relatively modest. Tourism, on the other hand, generated the same number of jobs as the two aforementioned sectors combined, indicating the substantial employment potential of the sector.

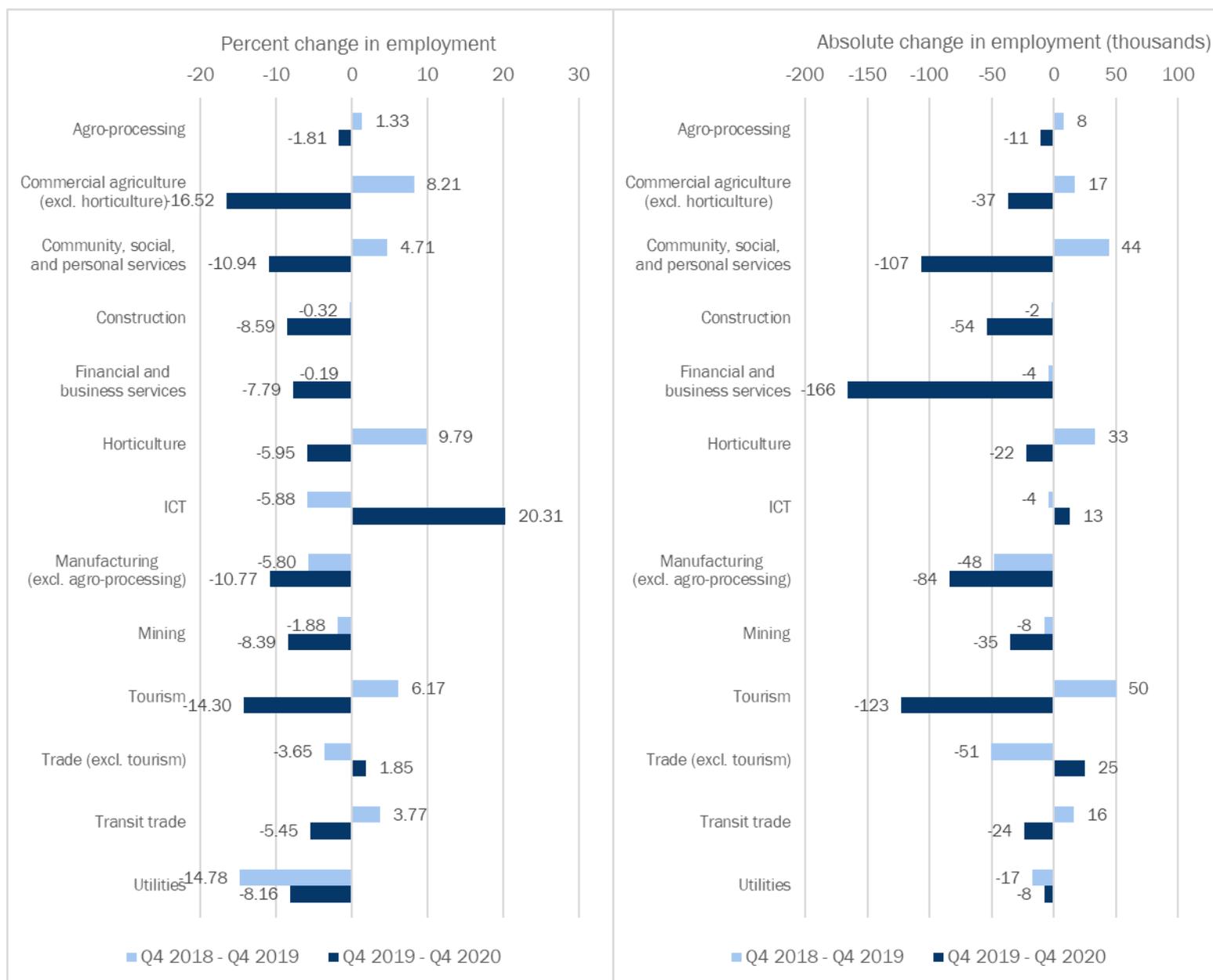
However, the pandemic overturned the positive employment growth in many IWOSS sectors, with only the small ICT sector experiencing an increase in employment, albeit a large one (off a small base).<sup>2</sup> There were double-digit decreases in employment in the tourism and commercial agriculture sectors; in absolute terms, both sectors lost more than double the jobs between Q4 2019 and Q4 2020 that they had gained in the previous period, indicating the severity of economic conditions prevailing in South Africa between Q4 2018 and Q4 2019. A possible reason for the

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<sup>2</sup> Q4 2019 (ICT): 64,000; Q4 2020: 77,000, amounting to an absolute increase of 13,000. However, due to the small sample of the ICT sector, this estimate might be unrepresentative of the ICT sector as whole.

large decrease in commercial agriculture sector despite never being closed is to do with seasonality: Many workers employed in agriculture are part-time workers who are only employed during harvesting season. The decrease in tourism employment was expected given the tight restrictions that remain on leisure travel across the world and certain regulations (namely the temporary alcohol ban and curfew time) that reduce the enjoyment of going on holiday, even domestically.

**Figure 4: IWOSS and non-IWOSS percentage and absolute employment change, Q4 2018 - Q4 2020**



Source: Statistics South Africa (2020b, 2020c, 2021a), own calculations.

Financial and business services experienced the biggest decrease in employment numbers among IWOSS sectors and one of the largest decreases in relative terms. Although this sector does contain many white-collar workers (e.g., bankers, consultants, doctors, researchers) who are able to work from home easily, previous research has shown this sector also captures many individuals who work for temporary employment agencies (Bhorat, Cassim & Yu, 2016). Such employment is

characterized by low pay and insecurity as workers rely on other companies to hire their services. With many companies facing financial hardship, it is easy to see why one of the first items to be cut is external agencies who provide cleaning services. Indeed, with many workers forced to work from home, there would be no need to use such services until workers return to the office.

Both horticulture (with losses of -22,000 or -5.95 percent) and transit trade (-24,000 or -5.45 percent) experienced a moderate decrease in employment during the pandemic, suggesting marginally reduced economic activity in these sub-sectors over this time period. Although agro-processing recorded a drop of 11,000 (-1.81 percent) jobs between 2019 and 2020 the magnitude was very small and indicative of the resilience of this manufacturing sub-sector.

Comparing the IWOSS and non-IWOSS sectors between 2018 and 2019, on the one hand, and 2019 and 2020, on the other, shows faster growth during “normal” economic periods and more resilience during tougher economic conditions. Between 2018 and 2019, overall employment in IWOSS sectors grew by 2.4 percent compared to a decrease of 3.61 percent for the non-IWOSS sectors. Although both IWOSS and non-IWOSS sectors declined between 2019 and 2020, the decline was much smaller in IWOSS sectors (-3.71 percent) than non-IWOSS sectors (-9.37 percent).

### **2.3 Outlook for economic growth and employment**

In the pre-pandemic 2020 Budget Speech, the National Treasury forecast economic growth of 0.9 percent for 2020 (National Treasury, 2020). However, this estimate was made superfluous with the implementation of the national shutdown in late March, which severely restricted economic activity. However, over the course of 2020, COVID-19 regulations were gradually eased, resulting in an economic rebound in the second half of 2020, with quarter-on-quarter growth in quarter 3 and 4 in 2020 of 13.7 percent and 1.5 percent, respectively (Statistics South Africa, 2020). Despite this rebound, the South African Reserve Bank (SARB) and international organizations such as the International Monetary Fund (IMF) and Organization for Economic Co-operation and Development a contraction of between 7 and 8 percent for the whole of 2020. In contrast to 2020, both SARB and the IMF expect the South African economy to grow in 2021 by 3.6 and 2.8 percent, respectively (SARB, 2021; IMF, 2021), with a smaller growth forecast in 2022 (SARB, 2021; IMF, 2021).

However, the outlook remains uncertain, as many factors that influence when the pandemic, and associated restrictions, will come to an end remain unknown. Such factors include subsequent waves of the pandemic both in South Africa and abroad, as well as vaccinations in the country and abroad. Furthermore, the virus has evolved and the many variants that are now spreading present further complications with respect to how effective the current vaccines will be in containing the pandemic. In this regard, it is difficult to say how the economic recovery will proceed, and what setbacks surface, for as long as the pandemic continues. While it is unlikely that any new “hard” lockdowns will be implemented, it remains likely that those sectors most impacted by the spread of the virus and containment measures will continue to be restricted, at least to some extent, for as long as the pandemic continues. Based on the effects shown above, these sectors seem to be construction, transport, manufacturing, and wholesale and retail trade. In the following section, we consider the impact for the four IWOSS sectors that were the focus of our case study.

### 3 Impact of COVID-19 on tourism, agro-processing, horticulture, and logistics

Service-based industries came under severe pressure during the COVID-19 pandemic. In many such industries, interactions with humans are a key part of the job, but overarching the medical recommendations including reducing or even eliminating contact with other individuals outside of the immediate household. Although some service-based industries could operate well from home (e.g., financial services or ICT), others, such as those in personal services and tourism, could not. As a result, for businesses in the latter group, they either could close down, reduce the staff, or decrease number of hours worked. The effects of lockdown on these businesses were exacerbated by the lack of financial support from the South African government compared to those in developed countries. Against this background, we examine the economic effects—primarily employment—on the four selected IWOSS sectors—tourism, agro-processing, horticulture and logistics (transit trade)—and discuss whether the changes brought about by the pandemic are largely transitory, structural, or a combination of both.

#### 3.1 Tourism

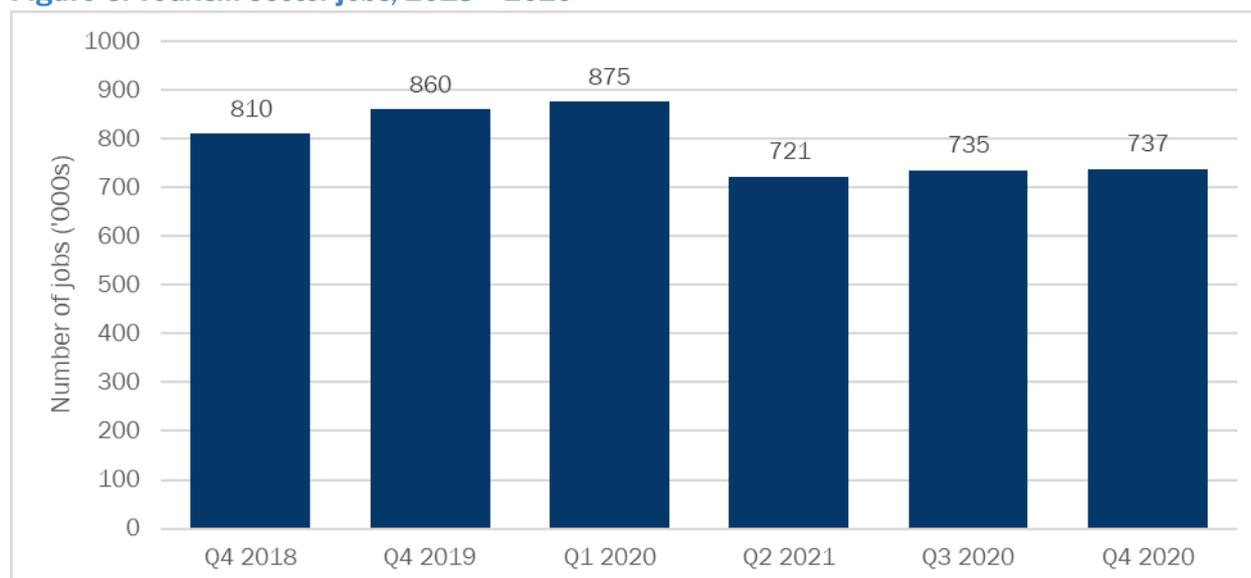
South Africa is one of Africa’s premier tourist destinations, attracting 10.23 million international tourists in 2019, second only to Morocco’s 12.93 million (Statistica, 2021). South Africa’s natural beauty, game parks, historical sites, and value for money are all factors that explain its attractiveness to international tourists. The volume of tourists has led to tourism becoming an influential sector within the economy, accounting for approximately 7 percent of South Africa’s GDP (World Tourism and Travel Council, 2020) and 860,000 jobs in 2019.<sup>3</sup> However, the growth of the industry came to a grinding halt in 2020, with international travel restrictions implemented across the world to curb the COVID-19 pandemic. Although South African borders to international travelers were re-opened on the October 1, 2020 (Business Insider, 2020), continued travel restrictions in South Africa’s major source markets such as the U.K. and Germany has not led to a major recovery in the tourism sector. According to the U.N.’s World Tourism Organization, international arrivals in October (the latest month for which data is available) 2020 were down 91 percent compared to October 2019. Evidently, the COVID-19 pandemic has had a substantial negative impact on the tourism sector. We provide more detail below.

We begin examining the impact of COVID-19 on the tourism sector by detailing employment from the Q4 2018 through to Q4 2020.

Between 2018 and 2019, employment in tourism grew by 50,000, representing an increase of 6.2 percent over the year. In the subsequent quarter (January to March 2020), an additional 15,000 jobs were added, representing just under one-third of jobs created over the entire 2018-2019 year. The total number of jobs in the tourism sector in the first quarter of 2020—875,000—represents the peak of tourism employment in 2020. In the second quarter, with both international and domestic flights banned in South Africa, 154,000 tourism jobs were lost, representing a decrease of 21.4 percent from the previous quarter. Although tourism job numbers marginally recovered in quarters three and four of 2020, the increases were far less than the decrease experienced between Q1 2020 and Q2 2020.

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<sup>3</sup> See Table A1 in the Appendix.

**Figure 5: Tourism sector jobs, 2018 – 2020**

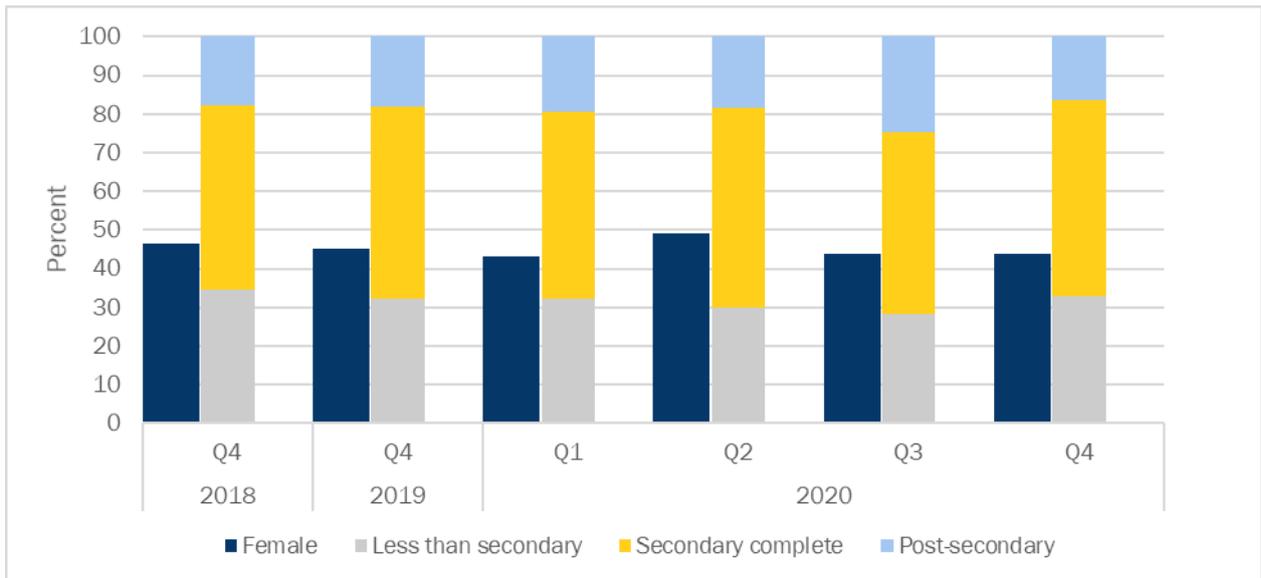
Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

We next turn our attention to the gender and educational composition of those employed in the tourism sector and how it changed over the two-year period. Beginning in the fourth quarter of 2018, females comprised 46.6 percent of the workforce. This figure marginally decreased until Q2 2020, where it jumped to 49.3 percent, indicating that a higher proportion of men than women lost their jobs in the second quarter of 2020. However, this figure has subsequently decreased in quarters three and four of 2020 as the sector has begun its slow recovery, suggesting that men are the main beneficiaries of the new job opportunities created in the sector.

There was no significant change in the educational composition of those employed in the tourism sector, with the only evident trend being a slightly higher proportion of individuals with less-than-secondary and complete secondary education in tourism at the end of 2020 compared to the beginning of 2020. We observe that approximately 50 percent of employed individuals in the tourism sector have completed secondary education, 30 percent have less than secondary education, and the remainder is composed of individuals with some form of post-secondary education.

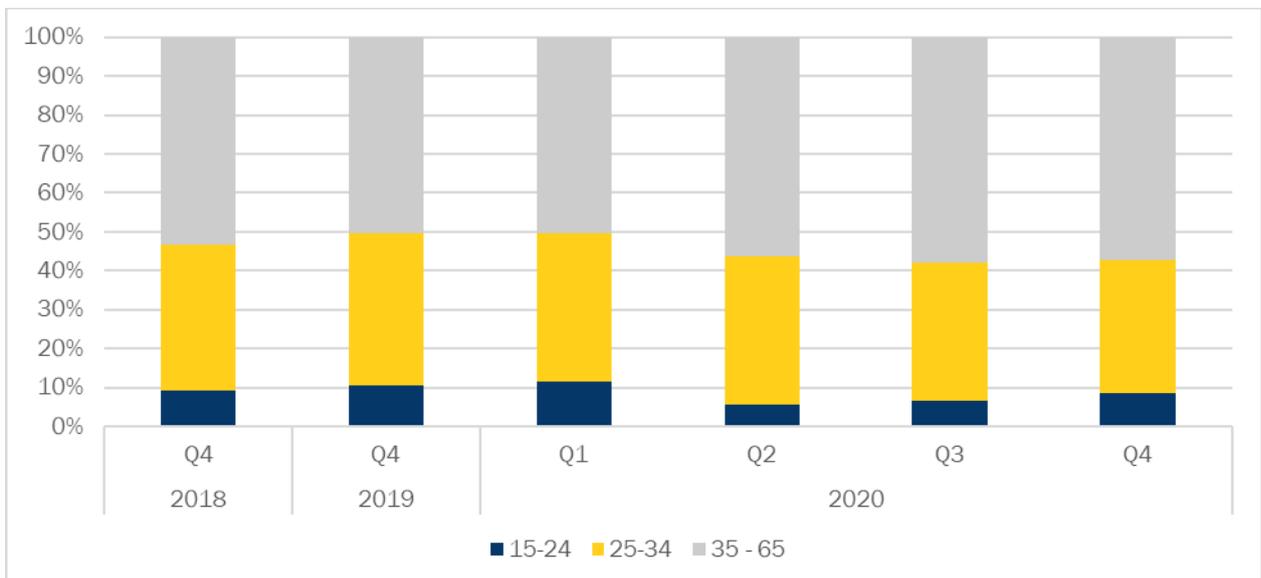
The two youngest age cohorts (15-24 and 25-34) have borne the brunt of the job losses in the tourism sector. In Q1 2020, 15-to-24-year-olds comprised 11.6 percent of the sector. This figure plummeted to 5.6 percent in Q2 2020 and has only marginally recovered in Q4 2020 to 8.6 percent. A slightly different experience was present for 25-to-34-year-olds, with their share of employment remaining relatively constant between Q4 2018 and Q2 2020. However, in the third and fourth quarters of 2020, there was noticeable decline, from 37.7 percent in Q2 2020 to 35.1 percent in Q3 2020 and 34.2 percent in Q4 2020. The decline in the share of employment in this age group can be attributed to more hiring in the 15-24 and 35+ age groups.

**Figure 6: Tourism employment share by gender and education, 2018-2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

**Figure 7: Tourism employment share by age, 2018 - 2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

It is therefore clear that the pandemic, and its associated restrictions, have had a major impact on the tourism sector, with the youth disproportionately bearing the brunt. It is also clear that the sector will remain constrained for any meaningful growth for as long as the pandemic persists: The International Air Transport Association (IATA) recently released a forecast that demand for international air travel in 2021 is likely to be only 38 percent of 2019 levels (IATA, 2021). IATA also released an earlier forecast saying that global passenger traffic will only reach 2019 levels in 2024 (IATA, 2020). Both these estimates underline the long road to recovery for the tourism sector across the world.

While it seems that the impact is likely to be transitory rather than structural, with the sector's potential to generate jobs not likely to be severely changed in the longer term, in the short term, it

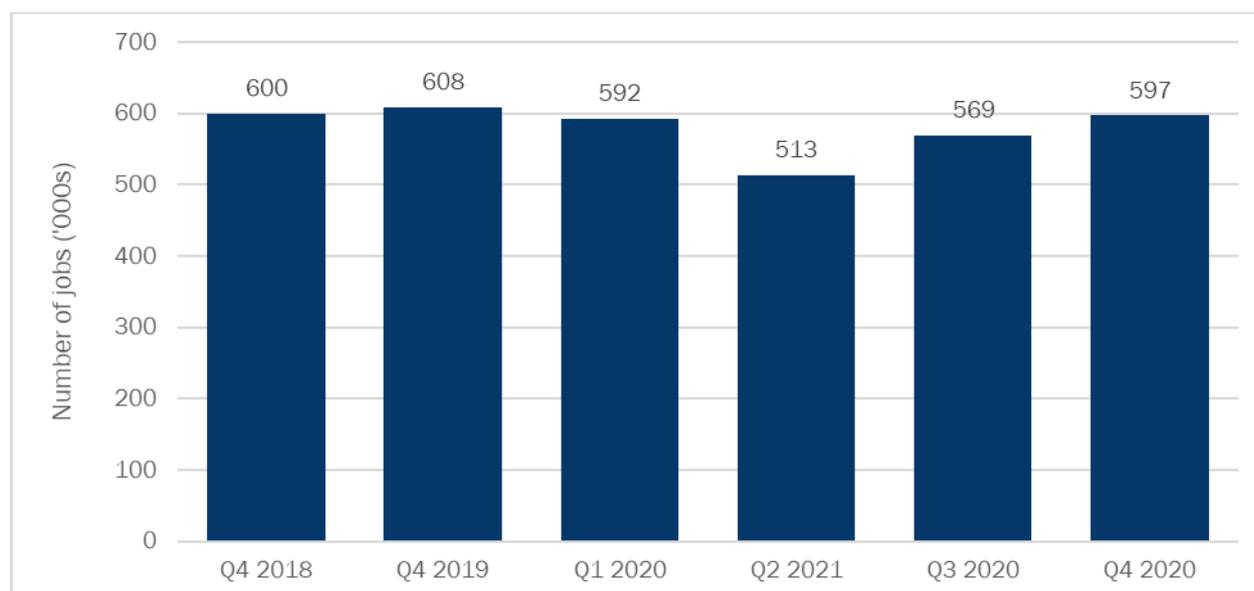
will be difficult for the sector to reach its potential while the pandemic persists. The factors that attract millions of international tourists to South Africa’s shores have not fundamentally changed as a result of the COVID-19 pandemic. Rather, the restrictions on and behavioral shifts away from international travel have severely damaged the tourism sector in South Africa in the short term.

However, with vaccination programs well underway in some of South Africa’s major source markets such as the U.K., there is optimism that such restrictions will be removed during 2021, enabling international tourists to visit South Africa. However, for some international tourists, their inclination to visit South Africa might also depend on South Africa’s own vaccination program, which started later than many countries and is struggling to obtain enough vaccine doses in a timely fashion. Many governments are considering the implementation of a vaccine passport program, which would allow vaccinated tourists to enter a country without going into quarantine. The South African transport minister, Fikile Mbalula, recently announced that South Africa is preparing to join the list of countries that will accept the International Air Transport Association’s mobile travel pass (Staff Writer, 2021). It is hoped that this initiative will boost South African tourism as not only will it potentially be cheaper<sup>4</sup> to travel to South Africa but also provide a reassurance of safety for vaccinated tourists. Ultimately, the road back to recovery for tourism is long, but certain, as international tourism grows off the substantial pent-up demand from 2020 and 2021.

### 3.2 Agro-processing

The number of jobs in agro-processing dropped by 13.3 percent between Q1 2020 and Q2 2020. This drop can be attributed to the reduced capacity (50 percent) under which agro-processing plants were operating during the second quarter of the year. In the final two quarters of 2020, employment rebounded strongly, with a net increase of 84,000 jobs. Compared to Q4 2019, the agro-processing sector only employed 11,000 fewer people in Q4 2020 despite the economic shock of 2020, indicating a high level of resilience within the sector.

**Figure 8: Agro-processing jobs, 2018-2020**



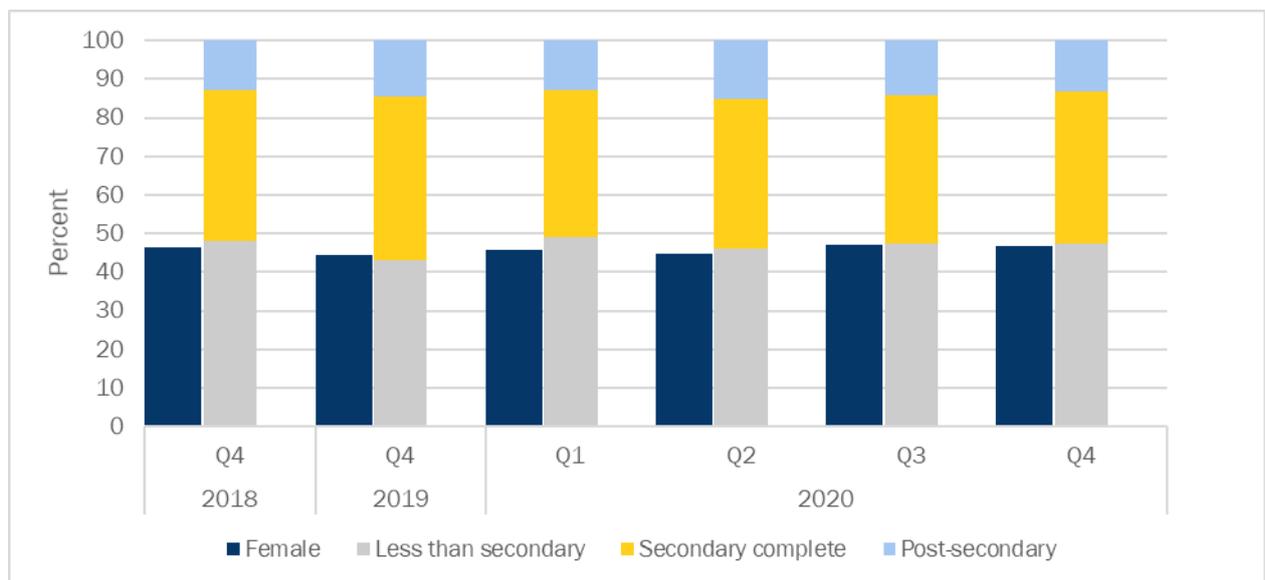
Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

<sup>4</sup> Based on the assumption that vaccinated tourists will no longer be required to take a PCR test before travelling to South Africa. Some countries, such as Greece, have already adopted this approach (McClanahan, 2021).

Looking now at gender and education group trends, we observe that there has not been significant change in the gender composition of the agro-processing sector: The proportion of females working in the sector has remained constant over the period.

For the most part, the share of employment by education in the agro-processing sector is relatively stable with nearly 90 percent of the sector having either a less-than-secondary education or completed secondary education. In Q4 2019, the proportion of less-than-secondary educated individuals and those with completed secondary education were nearly equal; although the gap closure appears large, the gap was only 3 percent. However, the gap subsequently widened again, where it has remained.

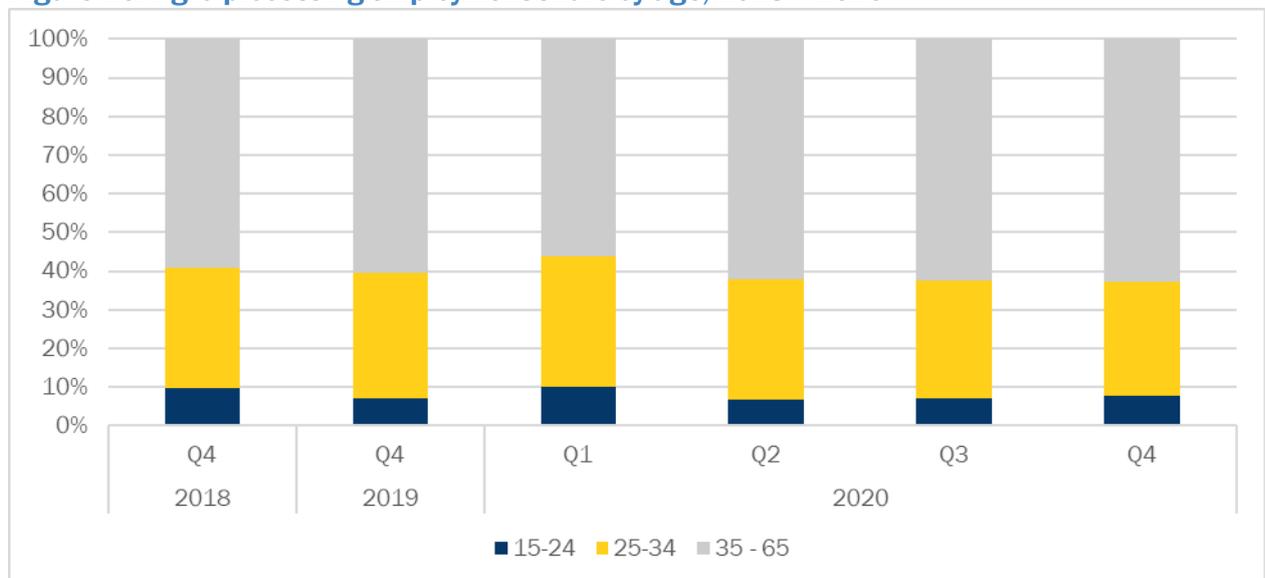
**Figure 9: Agro-processing employment by gender and education, 2018 – 2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

There has been no discernable change in the age composition of the agro-processing sector, similar to the trend observed for females working in the agro-processing sector.

**Figure 10: Agro-processing employment share by age, 2018 – 2020**



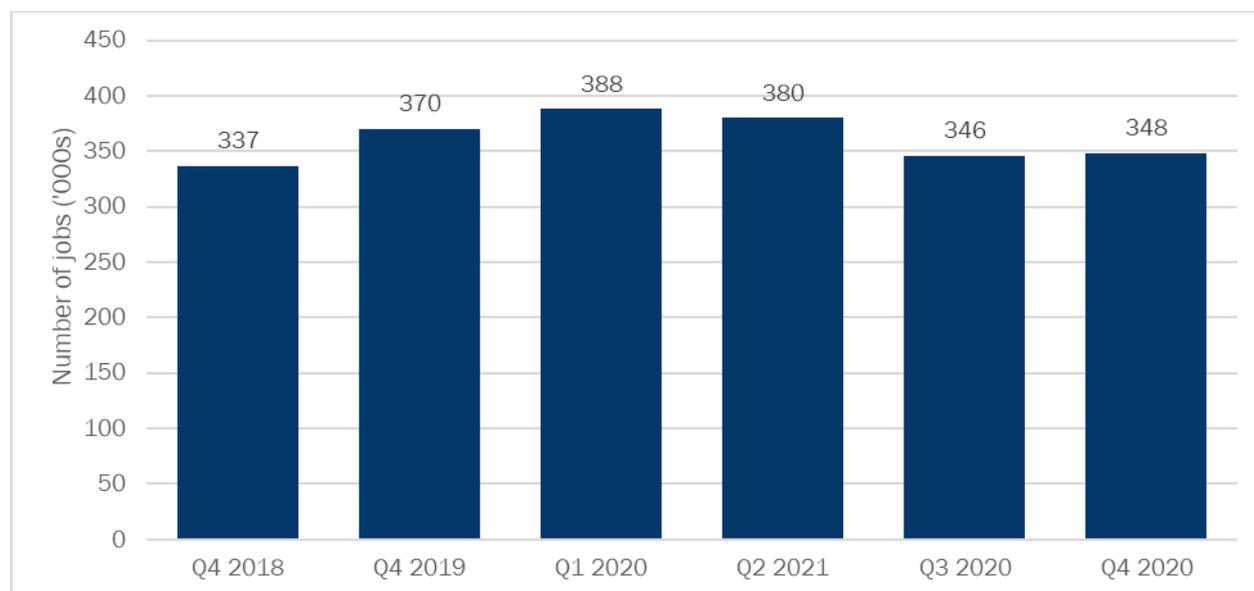
Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

As with tourism, the nature of the impact of agro-processing is likely to be transitory, as there is no evidence to suggest a substantial change in the demand for agro-processing products, and there seems to be no major and permanent input based changes that could have a lasting impact on the sector with the agricultural sector holding up relatively well. The minor job losses in agro-processing suggest that the sector is robust and primed for further growth as the world comes closer to returning to a state of normality.

### 3.3 Horticulture

The horticulture sector exhibited strong growth leading up to the pandemic, growing by 51,000 jobs (15.1 percent) between Q4 2018 and Q1 2020. Only 8,000 jobs were lost during South Africa’s most severe restrictions (Q2 2020); however, jobs loss accelerated in Q3 2020, amounting to 34,000. There was a minor recovery in the final quarter of 2020, with horticulture adding 2,000 jobs. Compared to Q4 2019, the horticulture sector employed 22,000 fewer people in Q4 2020, which represents a marginal decline. Similar to agro-processing, the marginal decline suggests that the horticulture sector is resilient in the face of serious economic headwinds.

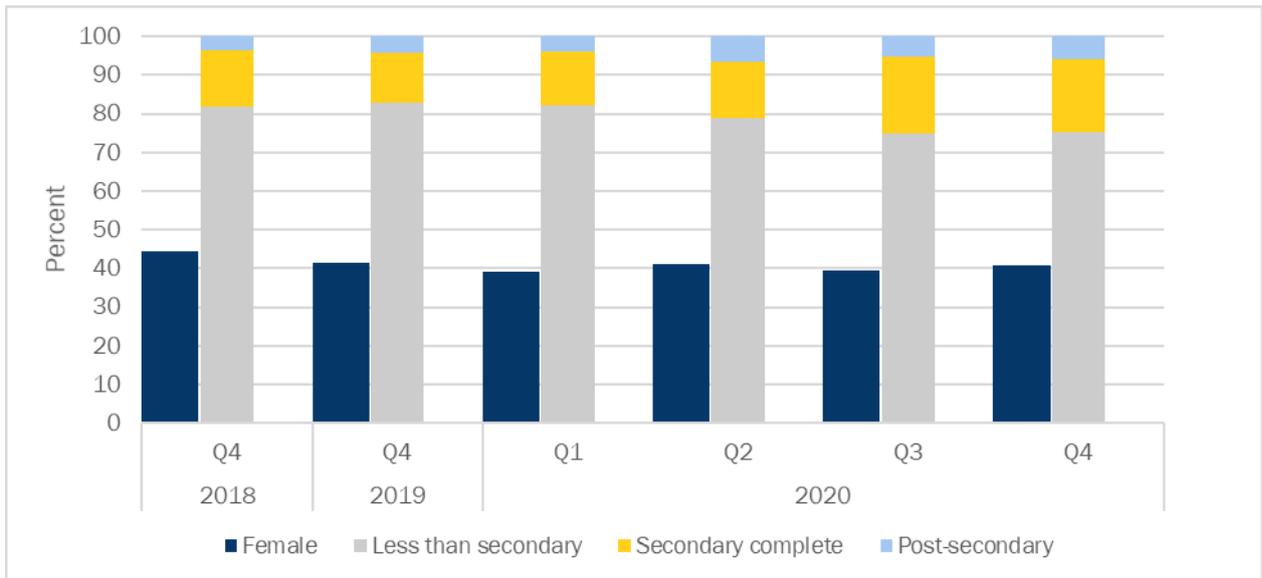
**Figure 11: Horticulture jobs, 2018 - 2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

Looking now at gender and educational group trends, we observe that approximately 80 percent of horticulture workers have less than a secondary education, and this share has remained constant throughout the two years. Another 15 to 20 percent of workers have completed secondary school while the remainder have a post-secondary education. The educational profile of the horticulture workforce highlights the ability of the sector to absorb low-skilled workers. It seems that this trend remains unchanged even in the face of adverse economic conditions.

**Figure 12: Horticulture employment by gender and education, 2018 – 2020**

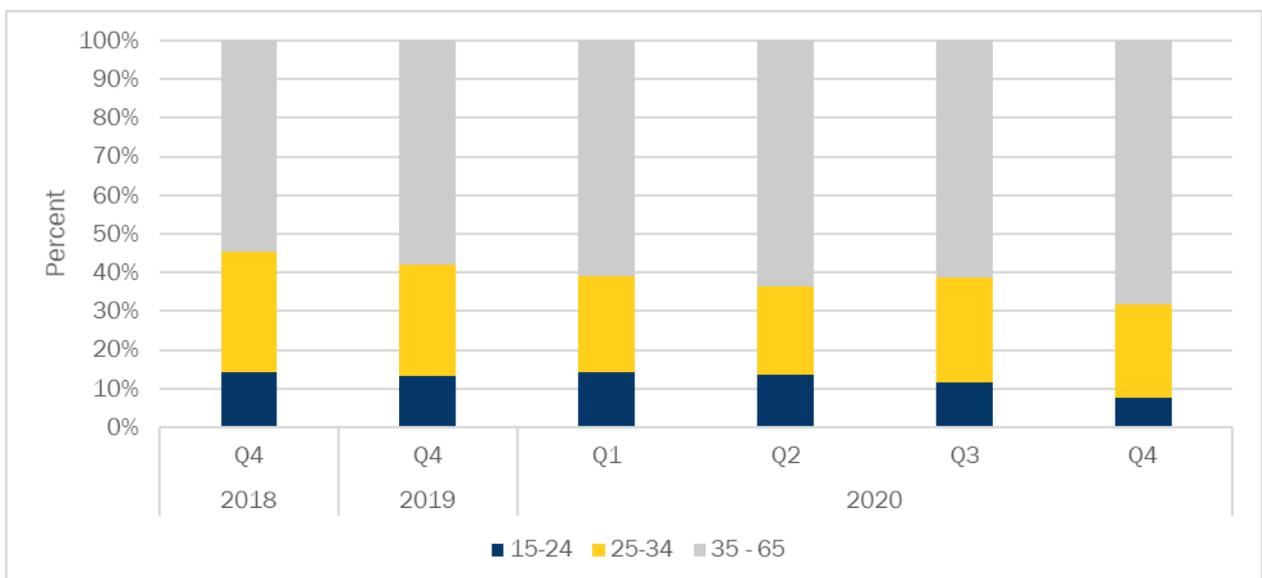


Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

There were significant changes to the age composition in horticulture. Between Q4 2019 and Q1 2020, the 25-34 group declined from comprising 28.7 percent of the horticulture workforce to 24.4 percent, with the 35+ age group’s share increasing.

Between Q1 2020 and Q2 2020, the 35+ age group’s share increased while the two younger group’s shares declined. However, the trend was reversed in the next quarter, with 25-34 group experiencing an increase in its share of employment from 22.7 percent to 26.4 percent, while the 15-24 age group continued to decline. In the final quarter of the year, the situation resembled that of Q2 2020, with the share of older workers increasing and that of younger workers decreasing. This is a concerning trend going forward as the data suggests that if there is a negative impact on the horticulture sector, young workers will be the first to lose their jobs, stunting the sector’s potential in contributing to solving South Africa’s youth unemployment problem.

**Figure 13: Horticulture employment share by age, 2018 – 2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

For one part of horticulture—the food crops segment—any decline over 2020 is likely to be temporary and not due to structural changes, such as changing consumer habits. Indeed, with a renewed emphasis on health, consumption of fruit and vegetable crops is likely to be higher, at least in the short-term. In the flower segment of the horticulture value chain, it is possible that there will be a short-term negative effect as weddings and other events such as conferences are not currently happening at the scale they were pre-pandemic. Some events may, however, move permanently to online formats following the pandemic, which may result in permanent reduced demand for some horticultural products. With a global market to cater to, horticulture remains promising as a sector with the potential for further growth that can absorb young and low-skilled individuals in need of employment in the country.

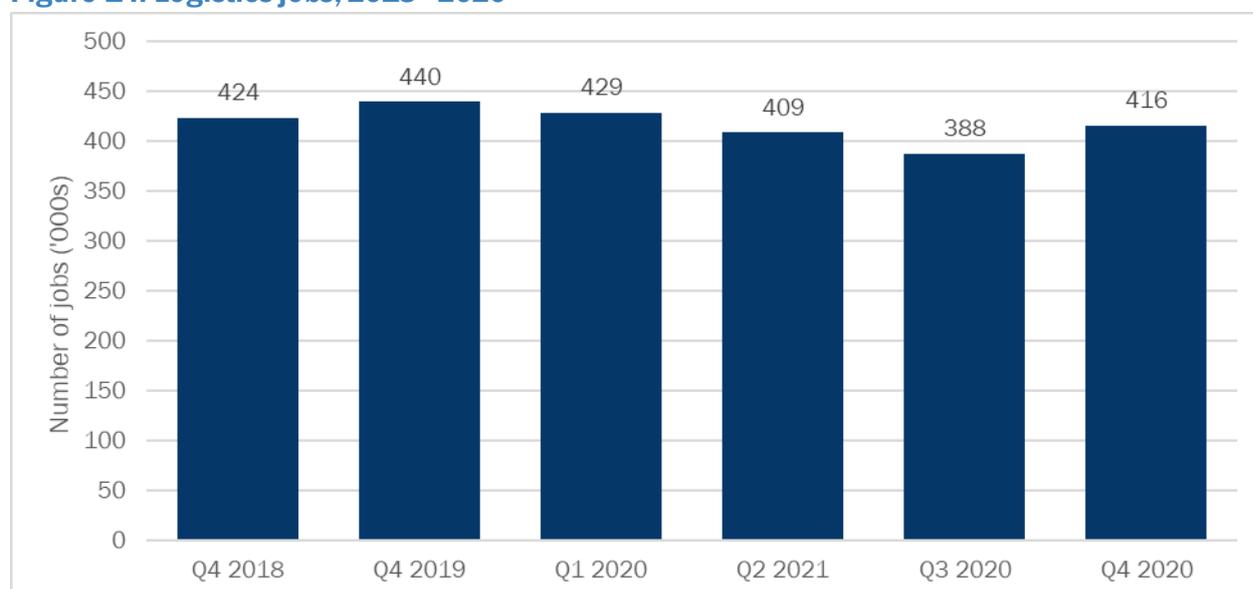
### 3.4 Logistics

The logistics sector plays a fundamental role in facilitating global trade. Disruption in the logistics sector usually results in interruption in other sectors due to the integral nature that logistics plays in the supply chain of many goods and services. For example, car manufacturers in South Africa require car parts from abroad: If these car parts cannot be shipped to South Africa for any number of reasons, the car cannot be built, impinging on the ability of the local car plant to meet production targets.

A study conducted in China looking at the initial effects of the COVID-19 pandemic on the logistics industry showed that a backlog at ports emerged, and cargo ships were prevented from entering or leaving China (International Finance Corporation, 2020). As a result, the rest of the world experienced shortages in many goods and commodities, especially in much-needed personal protective equipment (International Finance Corporation, 2020). Despite this initial shock, however, the logistics sector recovered very quickly in China, with the long-haul truck sector operating at 92 percent of its 2019 volume by April 2020 (International Finance Corporation, 2020). It is against this background that we set out to examine the impact of the COVID-19 pandemic on the logistics sector in South Africa.

Looking at the overall period between 2018 and 2020, the logistics sector appears to have fared better than the other selected IWOSS sectors. In Q4 2018, the logistics sector comprised 424,000 jobs, which was reduced by 8,000 to 416,000 by the final quarter of 2020.

**Figure 14: Logistics jobs, 2018 - 2020**



Source: Statistics South Africa (2019, 2020a, 2020b, 2020c, 2020d, 2021a), own calculations.

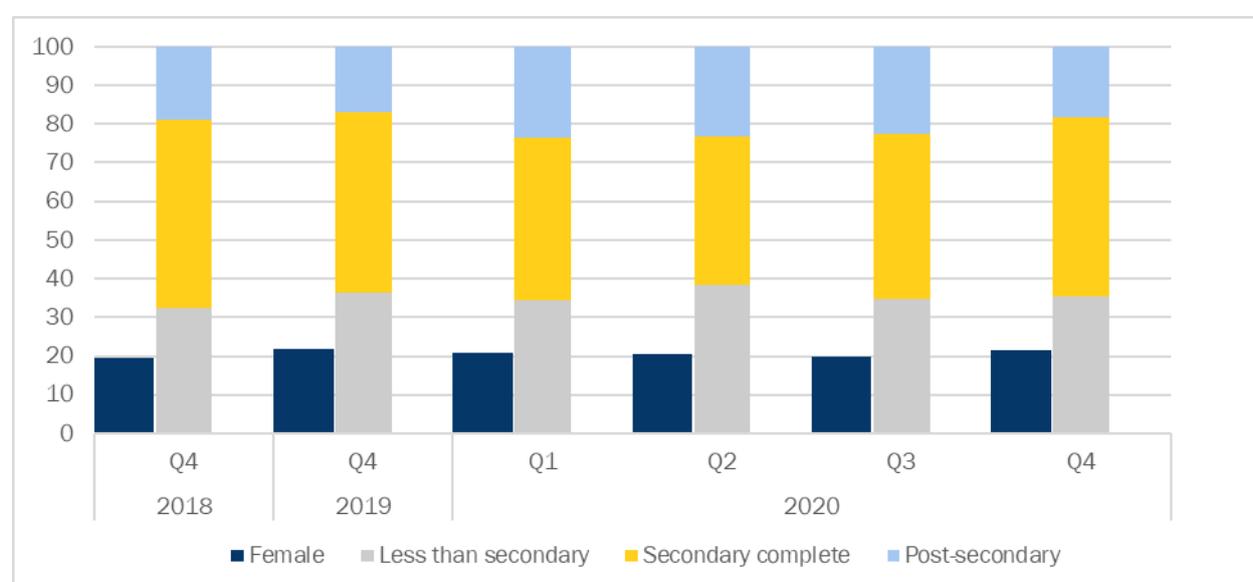
In Q1 2020 (the final quarter without any lockdown restrictions), jobs in the logistics sector amounted to 429,000, which decreased by 20,000 (-4.6 percent) in the second quarter lockdown restrictions came into effect. Despite the further loosening of restrictions in the third quarter of 2020, 21,000 further jobs were lost (-5.1 percent), although there was a large rebound in the final quarter, with 28,000 jobs added compared to Q3 2020.

Turning our attention to the gender and educational composition, the data reveals that female representation in logistics is the lowest out of the four selected IWOSS sectors, at around 20 percent. This proportion has remained static over the period considered.

In contrast to the stable gender composition in the logistics sector, there were changes in the educational composition of the logistics workforce. Pre-pandemic, on a broad level, most logistics workers had completed secondary education, followed by those with less-than-secondary education and then post-secondary education.

Between Q1 2020 (the final pre-pandemic quarter) and Q2 2020 (the first pandemic quarter), the proportion of individuals in logistics with completed secondary education dropped by 4.2 percentage points from 46.1 percent to 41.9 percent, while those with less-than-secondary education increased their share of employment from 34.4 percent to 38.0 percent. However, this trend was reversed in the third quarter, with a 4.5 percentage point rise in the share of employed with a completed secondary education and an almost identical decline (3.3 percent) of individuals with a less-than-secondary education. In the final quarter, the share of employment with a secondary education increased for the second successive quarter, reaching 46.5 percent—the highest figure since Q4 2018. While it is not clear what the reasons for these changes were throughout 2020, by Q4 2020, the shares were almost unchanged from their levels in Q4 2019, despite the year-on-year drop in employment of 24,000. This result suggests that, despite shifts throughout the year in response to the pandemic, logistics had somewhat approached a state of normality in its operations by the end of 2020 with growth and a similar distribution of employment relative to a year before.

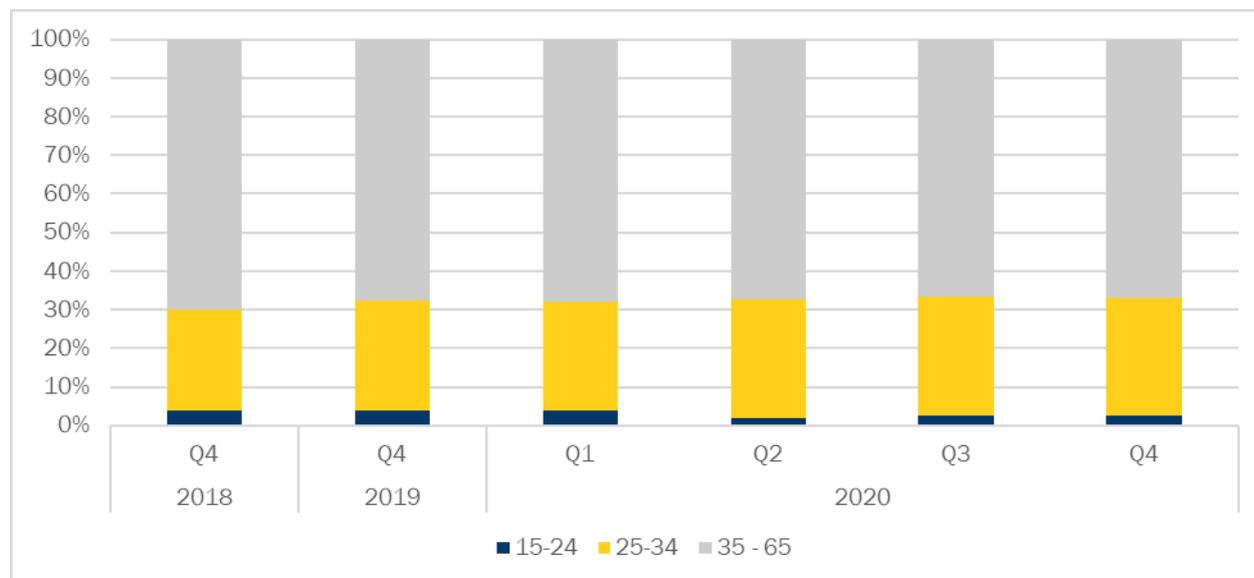
**Figure 15: Logistics employment by gender and education, 2018 – 2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

In the age group data, there was little change observed over the two-year period. The two youngest cohorts only comprised around one-third of employment in the logistics sector. Overall, the prospect for large-scale employment that benefits the youth appear low in the logistics sector.

**Figure 16: Logistics employment share by age, 2018 - 2020**



Source: Statistics South Africa (2020b, 2020c, 2020d, 2020e, 2021a), own calculations.

While an end to the pandemic and associated restrictions around the world can be expected to largely return the sector to its pre-pandemic state, the pandemic may have resulted in the acceleration of trends that were already expected in the future for the sector. These include increased reliance on online shopping and delivery and increased reliance on technology in the sector.

Like the agriculture sector, the logistics sector has remained mostly operational throughout the pandemic, although capacity limits on personnel were instituted at South Africa’s ports (Naidoo, 2020). However, as the China example illustrates, with the continual easing of restrictions, we expect the logistics sector to recover quickly because, for economies to operate normally, a mix of exports and imports are required. All trade in goods requires an excellent logistics system that facilitates the quick transport of goods to the required destinations.

There are a number of structural changes spurred by the pandemic that could positively and negatively affect the sector. Beginning with the positive, South Africa, like other parts of the world, experienced a boom in e-commerce. With health guidelines encouraging individuals to avoid human contact, many turned to the internet to order goods that they previously bought at shops. One of the major banks in South Africa, Nedbank, recorded 100 percent year-on-year growth in online payments, and online payment portal PayFast recorded a 283 percent increase in transactions on Black Friday sales compared to Black Friday 2019 (Malinga, 2020). Whether this move to online shopping remains permanent is debatable; however, it is reasonable to assume that at least some of the growth will be maintained over the medium and long term based on price and convenience considerations.

Another innovation by logistics companies over the course of the pandemic was the digitization of the customer experience (Naidoo, 2020). Instead of recipients of parcels signing the delivery of a parcel with a pen, only digital signatures were required so that human contact was reduced. More broadly, logistics companies should continue to digitize their operations to enable, for example, the real-time analysis of the performance of their fleet (Naidoo, 2020).

On the other side, the world experienced an uptick in protectionism during the pandemic, with many countries banning exports of certain key goods which were in short supply. Both the U.S. and the European Union have openly discussed adapting their supply chains to become less reliant on China. Ultimately, this protectionist instinct might reduce world trade over the long term, affecting the ability of the logistics sector to grow given its dependence on trade.

### 3.5 Nature of the economic impact of COVID-19 on IWOSS sectors

A key question is whether the economic impact of COVID-19 on IWOSS sectors is structural or transitory. If it is structural, then the ability of IWOSS sectors to generate enough jobs may be greatly curtailed. On the other hand, if the economic effects are transitory, we can be more confident in IWOSS sectors bouncing back in the future—ultimately being able to fulfil their potential to create jobs with the appropriate support.

Beginning with tourism, we expect that, although leisure tourism is most likely to suffer the most from the ongoing pandemic, the effect is likely to be largely transitory. Overall demand for holidays is unlikely to remain negatively affected forever. Once the pandemic is contained, there is no reason to suspect that leisure travel will not ultimately return to pre-pandemic levels and continue to increase as economies recover. This situation is particularly so because, unlike certain other experiences (e.g., business meetings), holidays cannot easily be replicated through virtual platforms.

On the other hand, business tourism is expected to be permanently lower, with estimates ranging from 10 to 50 percent lower compared to 2019 levels (*The Economist*, 2021). Many businesses have adapted to the COVID-19 pandemic by utilizing video-conferencing tools such as Zoom, Microsoft Teams, and Google Hangouts (*The Economist*, 2021). These tools have proven effective, but, more importantly from a business perspective, result in a major decrease in costs because businesses do not have to pay for airline tickets or accommodation. The tourism sector may, thus, have to adapt to a post-pandemic reality in which leisure tourism becomes increasingly more important than business tourism.

We expect both the impact of horticulture and agro-processing to be transitory in nature. There is no evidence to suggest that the pandemic has resulted in a substantial change of the consumption patterns of individuals (demand) or production (supply). If consumption patterns were to change permanently as a result of the pandemic, it would likely benefit the horticulture and agro-processing sectors as consumers turn towards healthy foods to improve their overall health in a world in which COVID-19 is a threat—particularly to individuals with compromised immune systems and obesity-related conditions.<sup>5</sup>

The economic impact of COVID-19 on the logistics sector is likely to be more structural than transitory. For many people, the COVID-19 pandemic meant that they shopped online far more than they would previously. They experienced the multitude of benefits of online shopping, from lower prices through to not having to wait in crowded spaces. As a result, many companies in South Africa, especially food retailers, have invested heavily in their online platforms (Theunissen, 2020). In order to see a return on their investment, businesses have an incentive to hold onto consumers that have made the switch from brick-and-mortar stores to the online realm.

Among these four sectors, tourism is then most likely to suffer from an ongoing pandemic. While the effect of the pandemic can be said to be more likely transitory than structural for the four sectors, the time to recover to pre-pandemic levels of activity will likely be higher for tourism given the nature of the sector. The sectors of horticulture and agro-processing seem well placed to

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5 <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>

resume growth and provide employment opportunities even while the pandemic continues. Logistics may also continue to see growth as the pandemic drives individuals to delivery of goods. However, the skills requirement for logistics is higher in comparison to the other sectors and, thus, may limit its potential to provide employment for individuals with lower levels of education who make up the majority of the unemployed population.

## 4 Implications for the recommendations made in the case study

In the case study, we made a number of broad recommendations for enabling growth and job creation in IWOSS sectors. We noted specifically that IWOSS sectors are heterogeneous and, as such, there is no single policy prescription or “magic bullet” that will unlock growth for these sectors. Rather, a coherent plan, with multiple policies that complement each other, will unlock the growth potential of IWOSS sectors. In the case study, our four high-level recommendations were:

- Facilitate an enabling operating environment in which firms can thrive across the economy.
- Craft and implement policies that focus on enabling the growth of specific IWOSS sectors and addresses the specific constraints faced by different IWOSS sectors.
- Develop relevant skills that will support the growth of IWOSS sectors.
- Ensure that all policies to grow the economy and IWOSS are inclusive.

We now consider how the COVID-19 pandemic affects these recommendations. We note first that the impact of the pandemic does not affect these recommendations at a high level. In other words, the recommendations remain relevant. However, the findings above have implications for how these should be implemented.

A positive finding is that employment in IWOSS sectors seems to have been more resilient than employment in non-IWOSS sectors. However, IWOSS have not been immune to the effects of the pandemic. It is clear that the potential of IWOSS, as well as the broader economy, will only be able to be reached once the pandemic is contained, around which great uncertainty remains. The road to economic recovery is a long one, and the pandemic will still be with us for some time. Thus, policymakers must recognize which sectors are more vulnerable to the pandemic’s effects and which are more likely to achieve growth and provide employment even while the pandemic rages on. In this regard, tourism is the IWOSS sector most likely to be affected negatively by a prolonged pandemic.

In terms of the jobs that have been lost in IWOSS sectors due to the pandemic, the youth and those with lower levels of education have borne the brunt of job losses. While IWOSS sectors have the potential to employ youth, the pandemic’s effects have illustrated that the youth remain the most vulnerable to economic shocks when they occur in these sectors. This finding re-emphasizes the recommendation for growth in these sectors to be driven in a manner that is inclusive—but also suggests that inclusion in employment is not enough. Once these individuals are employed in the sector, it becomes important also to ensure that their employment is not precarious and easily lost in response to any shocks.

While the shock presented by the pandemic was not one that was skill related, the revealed vulnerability of young workers to shocks also re-emphasizes the need for these individuals to obtain skills that are relevant and that will enable them to obtain alternative employment should they lose their jobs for any reason. With respect to skill requirements in sectors, appropriate skilling (and re-skilling) of the population may also become more pressing in the short term as the

pandemic accelerates trends that previously may have been thought to become important only in a number of years. In both tourism and logistics, for example, digital skills may become relevant sooner than expected as businesses adopt digital measures to limit human interaction and promote efficiency.

Finally, it remains important to facilitate an enabling operating environment for firms. In the specific context of the pandemic, this means, in addition to the issues raised previously (infrastructure development, the fiscal environment, labor market regulation, and corruption), being cognizant of the pressures faced by businesses, and particularly small businesses, caused by lockdowns, and designing containment measures in a way that minimizes impact on businesses and employment. Recognizing that this can be difficult in the context of a public health crisis, it is also important that appropriate support measures be used to mitigate negative economic impacts that may not be possible to avoid. In this regard, it is also important that all possible measures to contain the pandemic (such as procurement and rollout of appropriate vaccines) be taken as soon as they reasonably can.

We also re-emphasize that there is no one-size-fits-all policy or approach. Policies should address specific constraints faced by the different IWOSS sectors in order to enable growth of each sector. In the context of the pandemic, this strategy must include supporting businesses in sectors more adversely affected in ways that cannot be avoided such as tourism, and ensuring that the labor force obtains the skills required in sectors such as tourism and logistics where the pandemic may have accelerated the need for digital skills for example.

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## Appendix

**Table A1: IWOSS and non-IWOSS jobs by sector, 2018 - 2020**

	Q4 2018	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020
	('000)	('000)	('000)	('000)	('000)	('000)
<b>Total formal private sector employment</b>	<b>8,920</b>	<b>8,954</b>	<b>8,863</b>	<b>8,086</b>	<b>8,202</b>	<b>8,342</b>
<b>Total IWOSS</b>	<b>5,981</b>	<b>6,046</b>	<b>5,956</b>	<b>5,549</b>	<b>5,656</b>	<b>5,701</b>
Agro-processing	600	608	592	513	569	597
Horticulture	337	370	388	380	346	348
Commercial agriculture (excl. horticulture)	207	224	181	202	204	187
Tourism	810	860	875	721	735	737
ICT	68	64	59	68	75	77
Transit trade	424	440	429	409	388	416
Financial and business services	2,136	2,132	2,090	1,896	1,986	1,966
Trade (excl. tourism)	1,399	1,348	1,342	1,360	1,354	1,373
<b>Total non-IWOSS</b>	<b>2,939</b>	<b>2,908</b>	<b>2,907</b>	<b>2,537</b>	<b>2,546</b>	<b>2,641</b>
Mining	425	417	419	366	418	382
Manufacturing (excl. agro-processing)	828	780	779	726	682	696
Utilities	115	98	89	91	77	90
Construction	631	629	640	535	532	575
Community, social, and personal services	934	978	971	780	825	871
Other	6	5	8	39	12	27

Source: Statistics South Africa (2020), own calculations.