

INDUSTRIAL DEVELOPMENT REPORT 2022

THE FUTURE OF INDUSTRIALIZATION IN A POST-PANDEMIC WORLD

BRIEF 2



A highly uneven impact across industries, firms and workers

Executive summary

The impact of the COVID-19 pandemic has been uneven across regions, countries and sectors. Some industries proved to be robust in the face of the shock, quickly recovering, even if the initial impact was severe. The majority of industries, however, was vulnerable: they were hit hard and are still recovering. Vulnerability is rooted in a combination of factors, including the prevalence of labour-intensive, low-wage production; a large degree of cross-border fragmentation; and a lower propensity to innovate. Firms that are active in vulnerable industries—in particular small and medium enterprises (SMEs)—suffered a severe blow. An analysis of a wealth of micro-level data collected by UNIDO suggests that smaller firms across different countries and industries were, on average, much less likely to successfully ride out the crisis. SMEs in developing and emerging industrial economies (DEIEs) account for a large share of female and temporary employment. The implications for workers—particularly those belonging to vulnerable groups—have been significant.

Key Findings

- 1.** The industrial composition of countries is key to understanding the pandemic's uneven impact.
- 2.** Smaller firms suffered a disproportionate blow. SMEs in vulnerable industries reported a decline in sales that was, on average, 14 times higher than that of large firms in robust industries.
- 3.** Vulnerable workers lost more jobs than others. Among the group of temporary female workers, a 1 per cent decrease in firm-level sales is linked to an estimated employment loss of 1.3 per cent.

COVID-19's heterogenous impact: accounting for industry composition

The fallout from the socio-economic crisis unleashed by the COVID-19 pandemic has been uneven across countries and regions. A similar observation has been made for industrial sectors. The IDR 2022 classifies industries into groups according to two key criteria. The first is the severity of the initial impact suffered, measured in terms of observed losses in economic activity. The second is the speed at which industries recovered. Using these two measures, the panels in Figure 1 below present a snapshot of how robust (or vulnerable) different industries proved to be. The figure is based on data on changes in UNIDO's Index of Industrial Production (IIP)—which measures growth in the volume of industrial production in real terms—for several industries across the globe. Three industries are highlighted in blue in the top panel: food and beverages, pharmaceuticals, and electrical equipment.

The pharmaceutical industry's trajectory represents a case of an industry that was not particularly affected by the pandemic. Relative to other industries, the initial shock was low (around 3 per cent), and the industry actually registered a boost in demand as the pandemic progressed. By June 2021, production had already reached 20 per cent above pre-pandemic levels.

Food production also initially experienced a small shock. Deemed an essential industry by governments worldwide, the food industry was, for the most part, exempt from the measures imposed to contain the virus. Yet production in the food industry has only modestly

recovered, growing a mere 2 per cent between August 2020 and June 2021.

The electrical equipment industry represents yet another case of an industry that was not significantly affected by the pandemic. The initial impact was substantial: within two months from the outbreak of COVID-19, production fell by 17 per cent. Recovery was equally swift, however. By June 2020, production had already returned to pre-pandemic levels; one year later, it was almost 16 per cent higher than before the pandemic. Despite their different trajectories, these three industries can be described as robust. They were either not severely impacted by the crisis, or if they were, they managed to recover quickly. Compare their trajectory, for example, to that of the apparel industry, highlighted in orange in Figure 1.

Apparel production was not only hit hard by the pandemic's initial impact—plunging nearly 25 percentage points—it also struggled to recover. By June 2021, production was still 5 per cent below pre-pandemic levels. A majority of the world's industries exhibited similar patterns: these are described as the vulnerable industries.

Vulnerable industries are less resilient to the types of shocks the pandemic triggered, including reductions in demand, value chain disruptions and labour shortages. The IDR 2022 finds that vulnerability is rooted in high labour intensity, combined with lower wages and a lower propensity to innovate.

A highly uneven impact across industries...



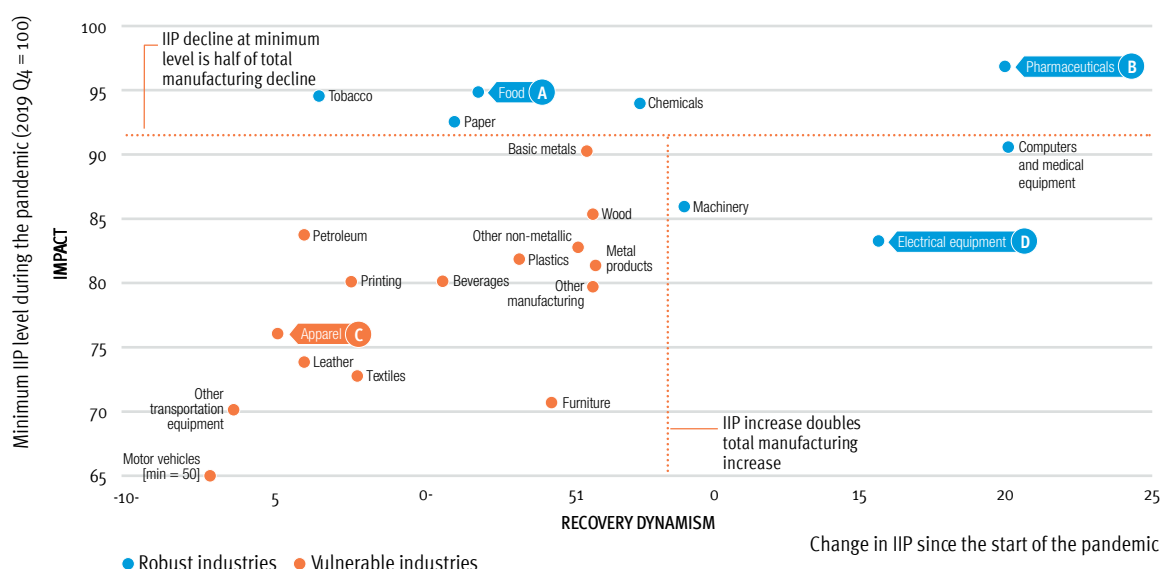
Industries



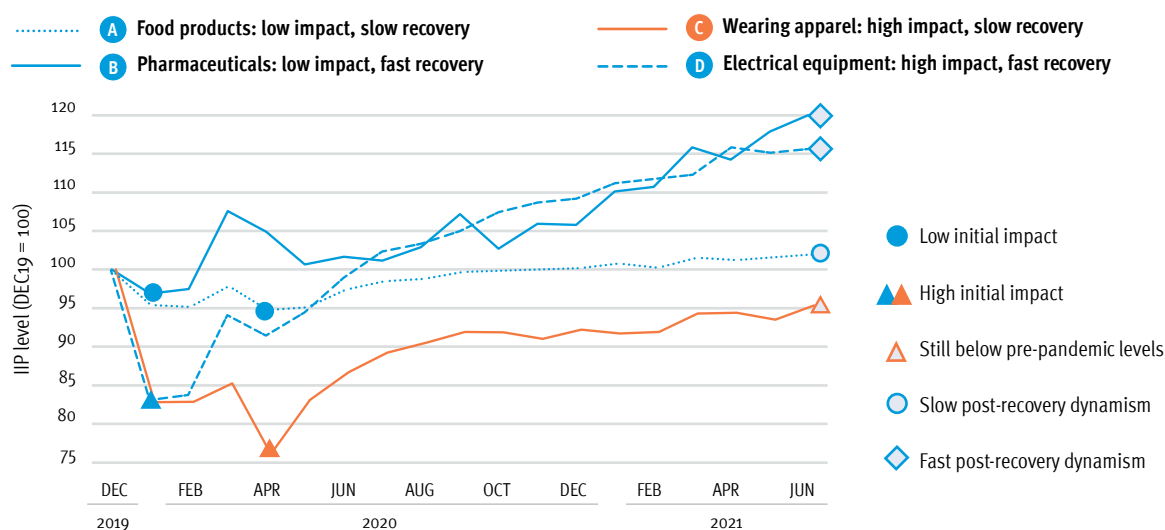
Two types of industries have emerged: Those that suffered a comparatively low impact or a strong negative impact with a swift recovery, and those which were hit hard and have not recovered fast.

Figure 1

Typology of global industries according to the observed impact of COVID-19 and the speed of recovery, 2019 Q4–2021 Q2



Heterogeneity of initial impact and speed of recovery in selected industries



Note: IIP stands for Index of Industrial Production. The IIP is seasonally adjusted. The figures show weighted averages for all countries with available data. The change in IIP since the onset of the pandemic is defined as the difference in IIP level between 2019 Q4 and 2021 Q2 (the latest available data).

Source: The UNIDO Industrial Development Report 2022. <https://www.unido.org/idr2022>

Indeed, the group of robust industries—visible in the top and right parts of Figure 1’s top panel—does not only include producers of essential goods, but also capital-intensive, high-tech industries. This is not to say that all capital-intensive industries fared well during the pandemic: many, including motor vehicles, were hit hard by international travel and mobility restrictions.

The global nature of the crisis, which proliferated through international linkages, also means that export-reliant industries suffered a heavier blow than their domestically-oriented counterparts. Looking ahead, improving production linkages between export-serving industries and the domestic economy is an important goal in post-pandemic recovery.

SMEs suffered a heavier blow

To understand the pandemic’s impact at a more granular level, the IDR 2022 analyses data from UNIDO’s own COVID-19 firm-level survey. The survey focused on manufacturing firms and provides data on key performance indicators such as profits, sales and employment.

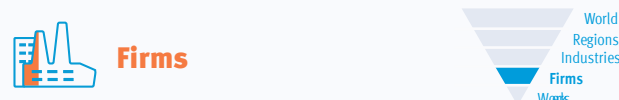
The findings that emerge from the analysis of the micro-data reflect the same conclusions as the industry-level data analysis. Firms in vulnerable industries generally suffered larger output losses, liquidity issues, and more severe disruptions in terms of access to finance. Resilience to financial stress was higher among firms in robust industries, meaning fewer firms closed down relative to firms in vulnerable industries.

Another key determinant of firm-level performance is firm size. The top panel in Figure 2.1 below illustrates that SMEs were more negatively affected than their larger counterparts. Drops in sales and profits were 4 and 14 times higher, respectively, for SMEs in vulnerable industries than for large firms in robust industries. The average SME laid off 41 per cent of its workers—against the 15 per cent average among large firms.

Coupled with operational disruptions, the contraction in demand triggered by the crisis led to acute pressures on cash flow in the vast majority of firms. While large corporations were better able to ride out the storm, SMEs—typically subject to stricter finance constraints—struggled to maintain capacity levels and market access.

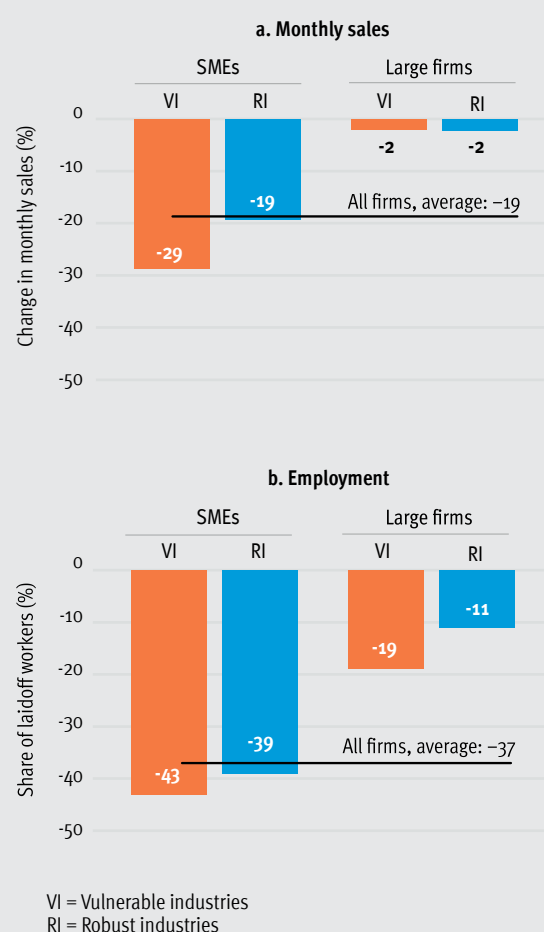
The COVID-19 pandemic: a heterogenous blow across firms and workers too

Figure 2.1



SMEs have been disproportionately affected by the pandemic relative to large firms

Impact of COVID-19 on firms, 2019–2020



Note: SMEs have up to 99 employees. Large firms have 100 or more employees. Robust and vulnerable industries classified based on previous page. Sample includes about 2,900 manufacturing firms in 26 developing and emerging industrial economies.

The pandemic's impact on workers

SMEs do not only account for a large share of employment in low- and middle-income economies. Vulnerable workers—including women and informal employees—tend to also be overrepresented in smaller firms. The reduction in employment in SMEs thus generated a negative shock to the disposable income of workers who already belong to the most marginalized groups in society.

The impact has been particularly acute for female workers. UNIDO's econometric analysis indicates that **decreases in firms' sales are linked to a higher reduction in female relative to male employment (Figure 2.2)**. This gap is particularly large in vulnerable industries and among temporary workers—in this group, a 1 per cent decrease in sales is linked to an estimated employment loss of 1.3 per cent among female workers against a loss of 0.85 among men.

Gender segregation in industry certainly plays a role in explaining these patterns, as female workers tend to be overrepresented in lower wage activities and in vulnerable industries. Gender discrimination in the workplace cannot be understated. In times of crisis, women workers tend to be perceived as more marginal—and thus easier to lay off.

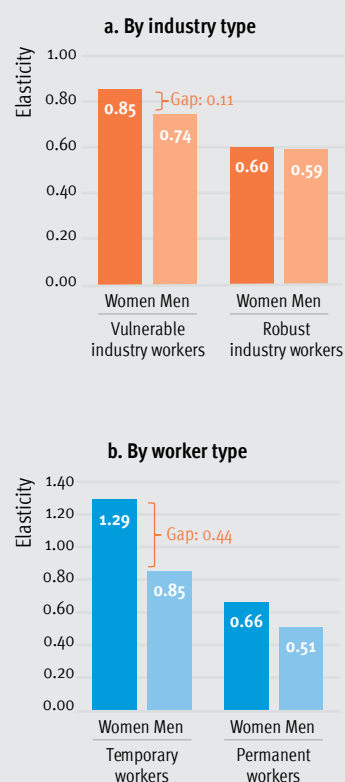
Figure 2.2



Workers



Elasticity of employment to sales: percentage of lost jobs for every 1 percent decrease in the value of money sales



Note: Robust and vulnerable industries are classified based on Figure 1. Permanent workers work for a term of one or more fiscal years. Temporary workers work for a term of less than one fiscal year. Sample includes about 1,000 manufacturing firms in 26 developing and emerging industrial economies.

Source: UNIDO Industrial Development Report 2022. <https://www.unido.org/idr2022>

References and/or suggestions for further reading

- [Braunstein. 2021. Gender and the Future of Industrialization in a Post-Pandemic World. Background paper prepared for the Industrial Development Report 2022. Vienna.](#)
- [UNIDO. 2021. Industrial Development Report 2022: The Future of Industrialization in a Post-Pandemic World. Vienna.](#)

Contacts

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