

COVID-19 OUTBREAK IN ITALY: QUARANTINE MEASURES TO DISRUPT BUSINESS OPERATIONS

March 11, 2020

Resilience360 Special Report

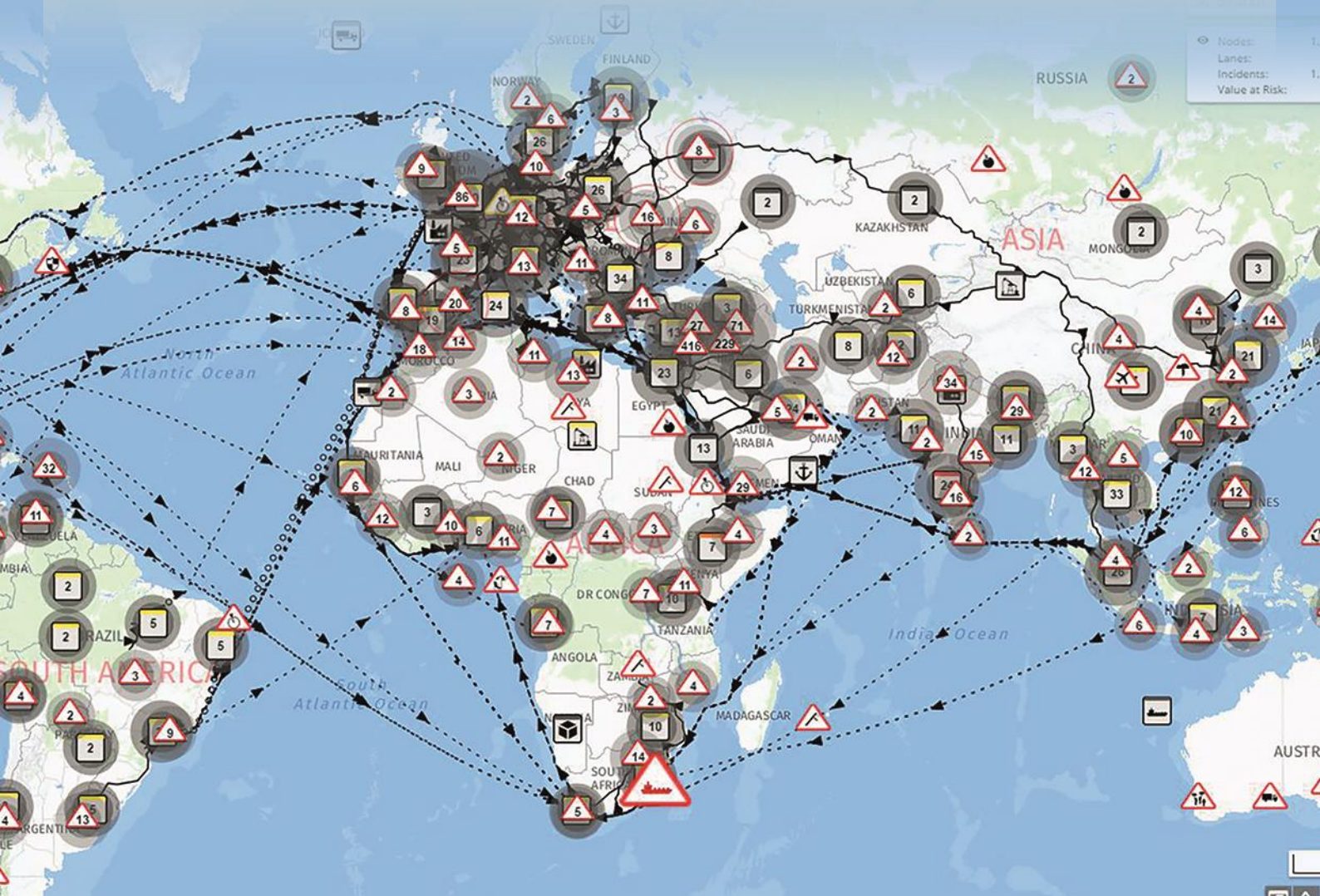
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EXECUTIVE SUMMARY

- Italian authorities on March 8 and March 10 announced further containment measures to curb the spread of the COVID-19 virus, which has so far infected more than 9,000 and killed more than 456 people, the most in any country outside of China.
- The measures aim to prevent anyone from moving in, out, or within the territory without a valid reason and are expected to remain in effect until at least April 3.
- Despite the severity of the quarantine measures, companies are able to continue operating if they comply with strict health provisions, such as providing workers with masks.
- Truck and rail operations across Italy have not been impacted as the measures only apply to the movement of people, and not the movement of goods.
- Operational activities may still face disruption in the coming weeks due to labor shortages, obstacles to cargo movements, higher transportation costs, and a shortage of masks for workers.
- Resilience360 data shows that the Greater Milan area, which accounts for more than one-fifth of Italy's GDP, hosts hundreds of manufacturing and supplier locations, with almost half of the locations belonging to the automotive industry.
- Should the measures taken in Italy prove to be successful in slowing the spread, other European countries may follow suit, in particular for virus hotspots in Spain, France, or Germany.

ABOUT RESILIENCE360



Resilience360 enables companies to visualize, track, and mitigate risks in their supply chain. The Resilience360 suite of solutions enables intuitive visualization of supplier networks, tracks shipments across different modes and lanes, and permits near real-time monitoring of incidents capable of disrupting supply chains. Resilience360 provides companies a first mover advantage in detecting and verifying risks using both Artificial Intelligence and a human network of DHL employees in 220 countries and territories. Customers trust Resilience360 to ensure business continuity, identify critical hotspots to mitigate risks, and turn potential disruptions into a competitive advantage.



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BACKGROUND

As initial containment measures were not successful in halting the spread of COVID-19, Italian authorities on March 8 and March 10 announced further measures to curb the spread of the virus which has so far infected more than 9,000 and killed more than 456 people, the most in any country outside of China.

On March 8, the government announced that large parts of northern Italy would be locked down, preventing about 17 million people from moving in, out, or within the designated areas. Two days later, authorities decided to extend the travel restrictions to the entire country, calling on police, emergency services, and if needed, the army to enforce the quarantine, with violations punishable with a fine of EUR 206 or jail terms of up to three months.

These measures also apply to Italy's industrial heartland in the region of Lombardy, of which Milan is the capital, as well the regions of Emilia-Romagna and Veneto. Accounting for 85 percent of the virus cases, the three regions make up for 40 percent of the country's economic output. A prolonged period of full quarantine can severely affect industrial output and could cause extended production shutdowns due to enhanced health requirements, labor shortages, and transportation obstacles.

WHAT EXACTLY DO THE EMERGENCY MEASURES ENTAIL AND WHERE DO THEY APPLY?

Initially on February 21, Italy announced enhanced containment measures in the Lombardy region, putting a dozen towns under lockdown, with businesses forced to close and residents unable to leave or enter the area. Recognizing the severity of the situation, these measures were extended to 26 provinces in northern Italy on March 8, before being implemented nationwide on March 10. They are expected to remain in effect until at least April 3 and are aimed at preventing anyone from moving in, out, or within the territory without a valid reason. Public events and schools will also be closed nationwide throughout the period.

People will still be allowed to travel if they obtain special permits for reasons such as family visits, health, or work-related obligations that cannot be postponed. Such permissions must be obtained by authorities after filling out self-declaration forms stating the reason for travel. Law enforcement agencies are reported to carry out random checks on people moving in, out, or within the regions on highways, in trains, and at airports to examine their self-declarations.

HOW WILL BUSINESS OPERATIONS BE AFFECTED?

Despite the severity of the quarantine measures, companies are able to continue operating if they comply with strict health provisions such as supplying devices to measure the temperature of employees; providing employees with masks, gloves and protective glasses; and imposing safety distances of at least one meter between employees.

As such, the measures are less strict than the initial lockdown on February 21 of 12 towns at Italy's epicenter of the outbreak in Codogno near Milan. There are, however, three ways in which companies may experience operational disruptions in the coming weeks.

Workers' safety

As the Italian government requires companies to comply with stricter health provisions, businesses may struggle to quickly implement such measures, in particular at factories or logistics sites which cannot easily set up safe distances between employees or revert to home office arrangements. A business survey by newspaper Sole 24 Ore showed that companies in the quarantined areas in northern Italy shut down preemptively on March 8 to implement the new requirements, with only about half being able to return to normal production on March 9. However, sports car maker Ferrari, which is based in the affected Modena Province, stated that its production was running at normal capacity after the company activated all measures necessary to allow employees to keep working. In the retail sector, shopping malls will be required to remain closed on weekends.

Labor shortage

As it remains unclear how efficiently the measures will be enforced, how quickly the special permits will be granted, and for what exact reasons they will be granted, this regulatory uncertainty makes it difficult for companies to plan operational schedules. Business operations may be further disrupted due to employees being unable to come to work for three main reasons.

First, workers at factories and other sites may not be able to travel to their workplaces any longer in case special permits are not accepted by authorities. Second, a number of workers may undergo self-quarantine efforts in case they have come in contact with infected people or show early symptoms. And third, companies may ask infected employees and colleagues that they have come into contact with to remain at home in self-quarantine.

How labor shortages may affect companies in Italy

- 1) Workers from outside the quarantine zones cannot reach workplaces in quarantined areas
- 2) Workers may go in self-quarantine after contact with infected people
- 3) Companies may ask employees to self-quarantine after contact with infected colleagues

HOW WILL BUSINESS OPERATIONS BE AFFECTED?

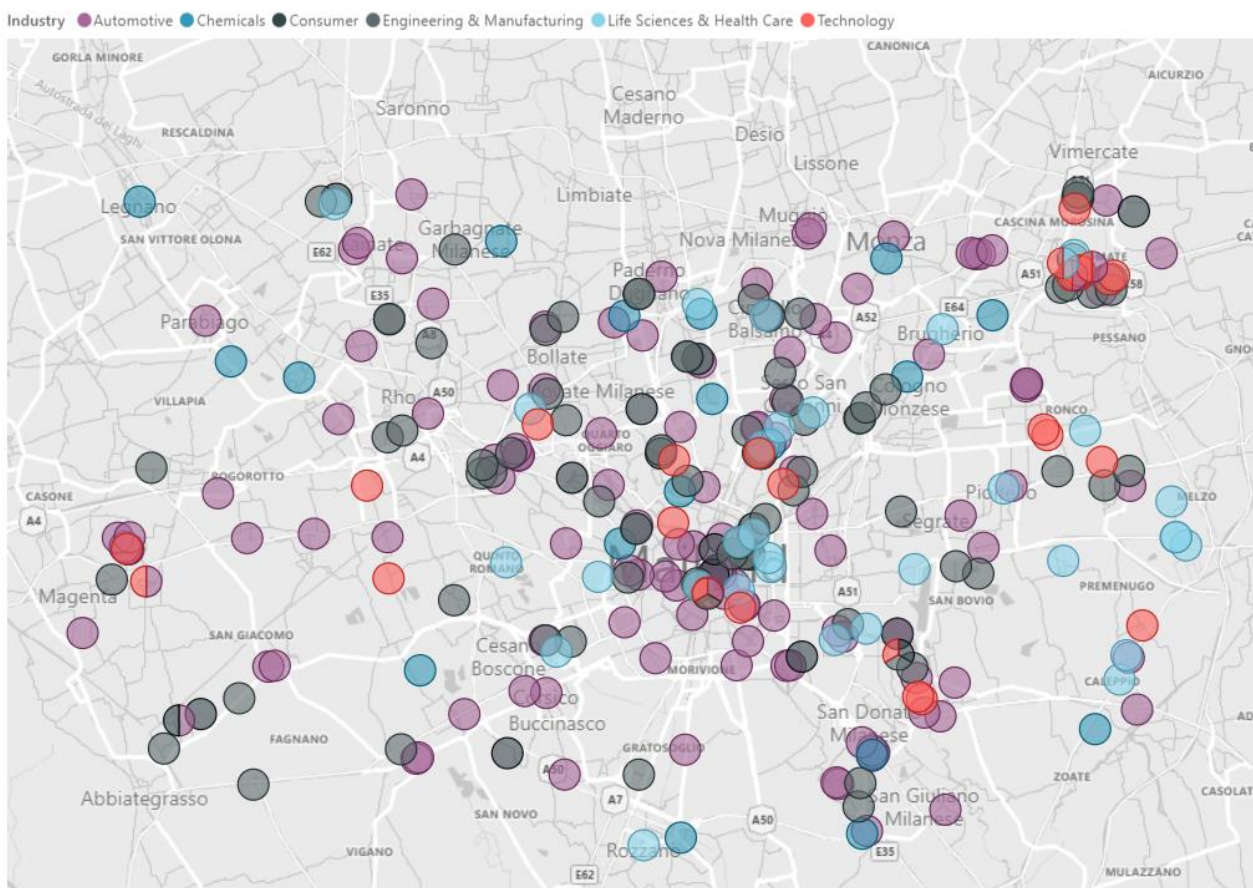
Several companies in Italy have already announced operational disruption due to labor shortages, including MTA Advanced Automotive Solutions, which produces fuse boxes for the car industry. The company is located in the initial lock-down area near Codogno and was forced to close for several days due to workers not being able to return to the plant from outside the quarantined town.

Cargo restrictions

As of this writing, truck and rail operations across Italy have not been impacted as the measures only apply to the movement of people, not the movement of goods. Truck drivers are thus exempted from the travel restrictions. Warehouse operations as well as intermodal operations, such as truck-air, ocean-truck and rail-truck combinations, are not expected to be disrupted, with ports and airports operating normally for the time being. However, some delivery and pick-up sites reportedly require truck drivers to wear masks to protect themselves and the people around them. A lack of masks supply could therefore occasionally lead to service disruptions. Reports also stated that some non-Italian trucking companies that usually carry goods from Italy abroad have charged 30 percent more than the usual freight rate, potentially increasing shippers' transportation costs in case of limited alternatives.

WHICH INDUSTRIES ARE LIKELY TO EXPERIENCE THE MOST IMPACT?

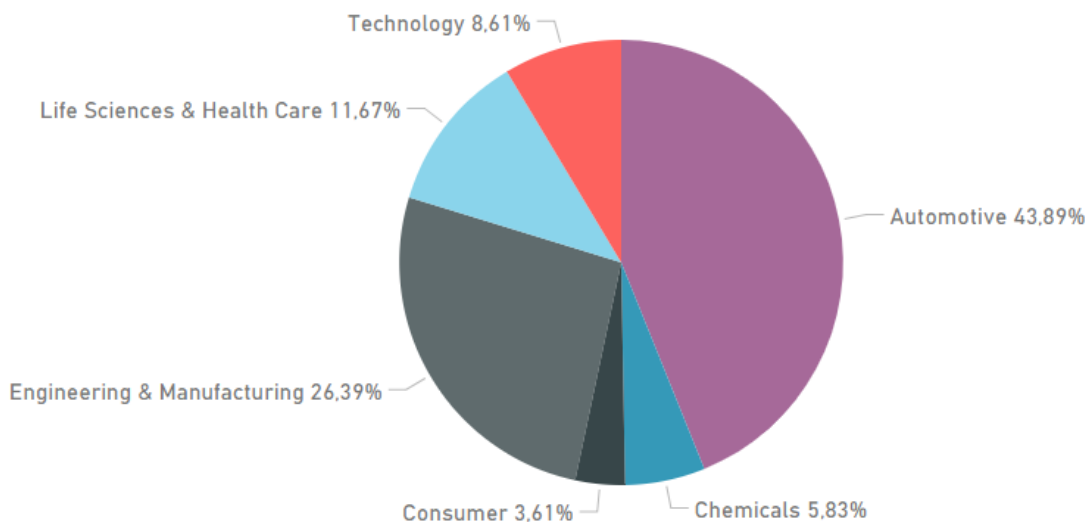
Italy's economy is the third largest in the Eurozone and the eighth largest by nominal Gross Domestic Product (GDP) in the world. The country is the largest global exporter of luxury goods, such as high-value designer clothes, as well as automobiles and hosts multiple leading manufacturing companies which are specialized in producing precision machinery, chemical products, and pharmaceuticals. As Lombardy is the richest region of Italy and represents more than one-fifth of Italy's national GDP, any disruption to this particular region, of which Milan is the capital, will likely have an impact on other Italian regions as well as broader European supply chains.



Manufacturing and supplier clusters per industry in the Greater Milan area; source: Resilience360

WHICH INDUSTRIES ARE LIKELY TO EXPERIENCE THE MOST IMPACT?

Taking a closer look at Milan and its surrounding areas, Resilience360 data shows that the region hosts hundreds of manufacturing and supplier locations across a variety of industries. Almost half of the locations can be attributed to the automotive industry (43.89 percent), with clusters of suppliers surrounding, for instance, a powertrain plant belonging to FPT Industrial (formerly Fiat Industrial) or the Bollate plant of tire maker Pirelli, which is also headquartered in Milan. Pirelli confirmed on March 9 that there would be no immediate impact on its Italian production. Other notable industries located in the area include engineering plants (26.39 percent); pharmaceutical and medical device makers (11.67 percent), of which two of the largest Dompe farmaceutici and Zambon are both headquartered in Milan; as well as technology suppliers (8.61 percent). Milan is also renowned for its role within the luxury fashion industry. Most of the major Italian fashion labels are based in Milan and have either production facilities there, including Dolce & Gabbana in Legnano, or subcontract factories in the wider region.



Breakdown of manufacturing and supplier locations per industry in the Greater Milan area; source: Resilience360

OUTLOOK AND RECOMMENDATIONS

As Italy's confirmed cases jumped by 1,807 to a national total of 9,172 cases on March 9, the government took the extraordinary step of extending its emergency measures to the entire country. This approach is considered a test of how far countries outside of China are willing and able to restrict the movement of people to contain the epidemic. According to data released by the Chinese government, the lowest number of cases has been reported on March 9 since the end of January, potentially underlining the effectiveness of such lockdowns. Should the measures taken in Italy prove to be successful in slowing the spread, other European countries may follow suit, in particular for virus hotspots in Spain, France, or Germany.

Although cargo movements have not been restricted yet, business operations may still experience disruption due to component shortages if suppliers are unable to fulfill contract obligations. For instance, sports car maker Ferrari noted on March 9 that continued production was dependent on its suppliers with whom it was in close contact.

In the long term, Italian-based non-financial companies may face a heightened risk of insolvency should the COVID-19 outbreak not be contained within 2020, according to a study by the Cerved Rating Agency. The agency identified the textile manufacturing, retail transport, and tourism sectors as being particularly at risk, with 1 out of 10 companies potentially becoming insolvent throughout the year.