

LIFE AFTER COVID-19

مؤسسة دبي للمستقبل
DUBAI FUTURE FOUNDATION



In collaboration with

مجالس دبي للمستقبل
DUBAI FUTURE COUNCILS

الخدمات اللوجستية
Logistical Services

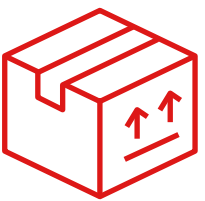


FUTURE TRENDS

LOGISTICS



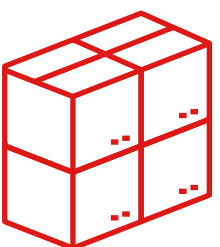
INSIGHTS IN BRIEF



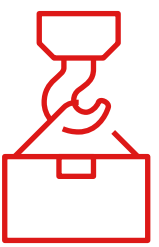
Immediate disruptions to supply chains in the region have been mitigated, but significant risks remain over the medium and longer term.



Countries are looking to secure supply chains by manufacturing locally, diversifying and increasing inventory levels.



There are opportunities in industrial real estate, despite oversupply at free zones, and there is scope for a regional or global storage hub.

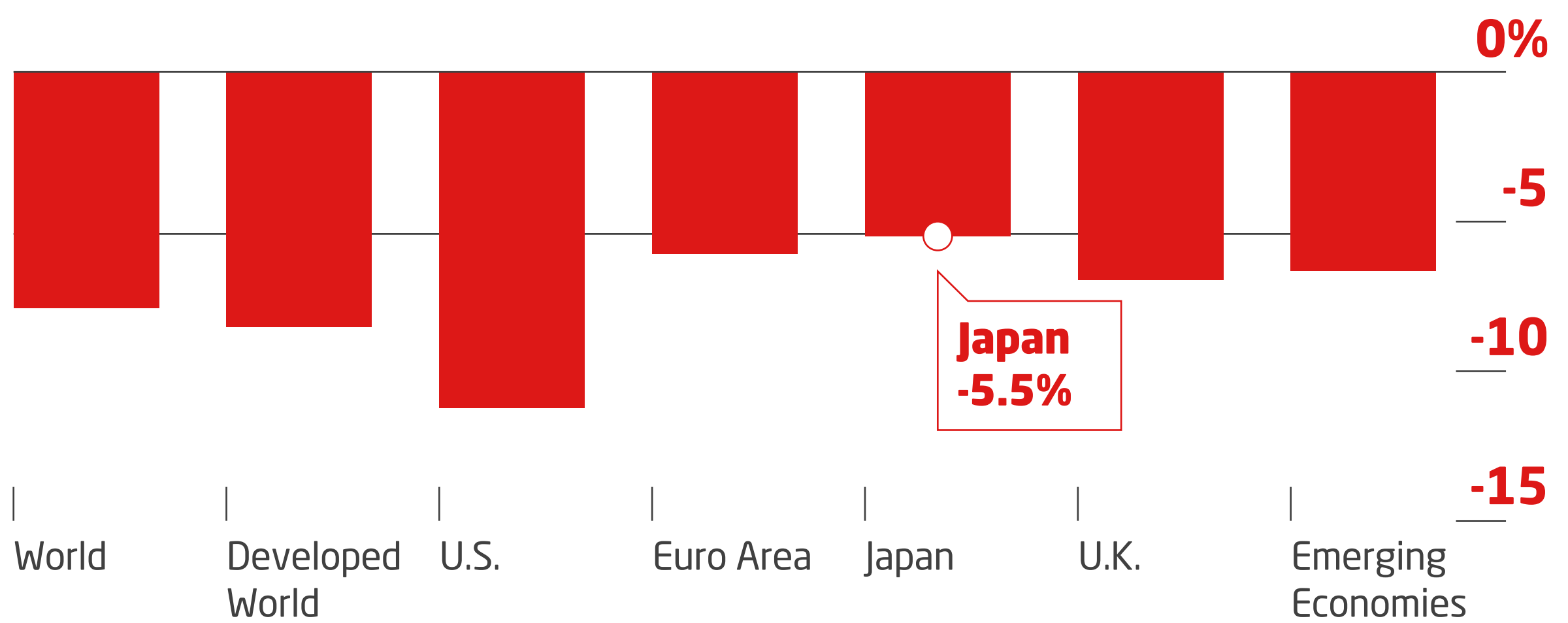


No amount of automation can prevent a recession if human agency is undermined, and the focus should now be on automation of 'demand chains' rather than supply chains.

CURRENT SITUATION

The logistics industry has helped to transform the Middle East into the trading hub it is today, taking full advantage of its ideal geographical location. However, the coronavirus has now placed significant strain on the world economy. Apart from the tragic human consequences of the coronavirus epidemic, it is estimated that the recession and uncertainty it has caused will cost the global economy \$5.5 trillion in 2020-2021¹. According to a recent survey of businesses from around the world, nearly 75 percent of companies report supply chain disruptions in some capacity due to coronavirus-related transportation restrictions².

CUMULATIVE LOSS BY END-2021



Source: JPMorgan
 Note: Forecasts show % deviation from Jan. 24 baseline

¹ MEED "GCC ramps up Covid-19 response", 17 March 2020
² Visa Middle East, "The UAE eCommerce Landscape 2019", June 2019; u.ae, Digital UAE

However, in the UAE, and throughout most of the MENA region, supermarket shelves have remained fully stocked. While the products available have sometimes been substitutes for familiar brands, the UAE has not seen shortages of the scale experienced by countries in some other regions. This is an indication of the resilience of the country's supply chain and its high inventory levels. The strategic and technological investments made in its ports, airports and free zones are paying off, allowing them to remain open and fully operational.

Immediate disruptions to supply chains have been mitigated, but challenges - and opportunities - lie ahead. Learning from this is critical as the current coronavirus might not be a one-off event. The World Health Organization indicates that there are annually over one hundred public health events with varying magnitude and socio-economic effects in Africa, and these events have been rising over the past four decades.³ In 2014, a Bank of America Merrill Lynch Report stated that "we are living in the age of pandemics".⁴

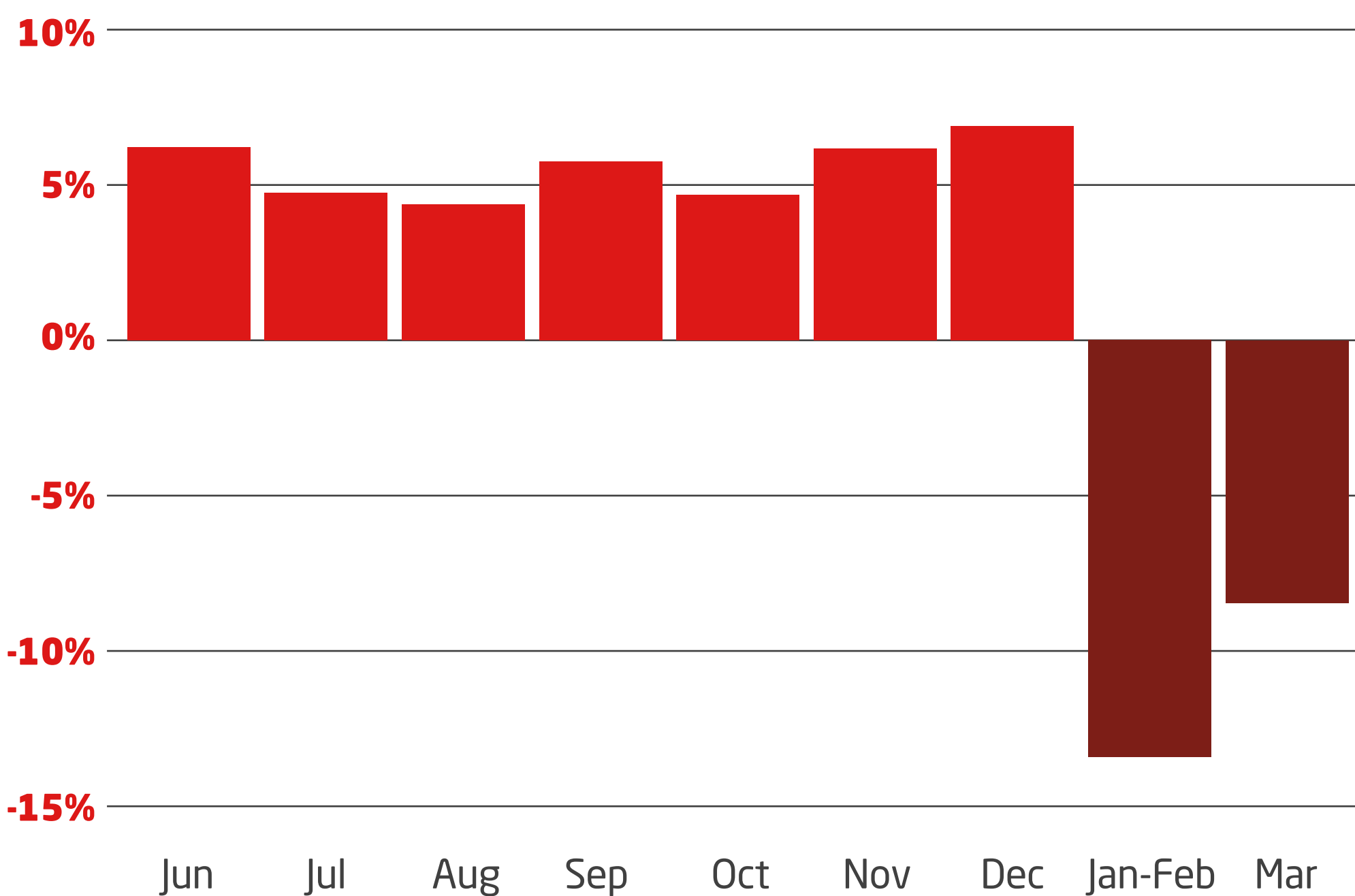


³ African Risk Capacity - "How to tackle the funding gap for public health emergencies in Africa: piloting an innovative financing mechanism for outbreaks and epidemics"

⁴ The Guardian - "Are we prepared for the looming epidemic threat?"; Bank of America Merrill Lynch Be Prepared! Global Pandemics Primer, 26 September 2014

Countries are beginning to acknowledge the magnitude of the risk involved in relying on a single foreign country as a primary supplier, particularly for essential goods. Ports can shut down. Nations can halt exports⁵. Manufacturing in foreign countries can be disrupted. For example, China, which makes up a third of manufacturing globally, saw industrial production drop in the first three months of 2020, compared to the same period in 2019⁶. In response, countries are looking to manufacture locally, even if it proves to be more costly. Japan, for example, has already set aside \$2 billion to help its manufacturers shift production from China back to Japan⁷.

CHINESE INDUSTRIAL PRODUCTION FEEL FURTHER IN MARCH

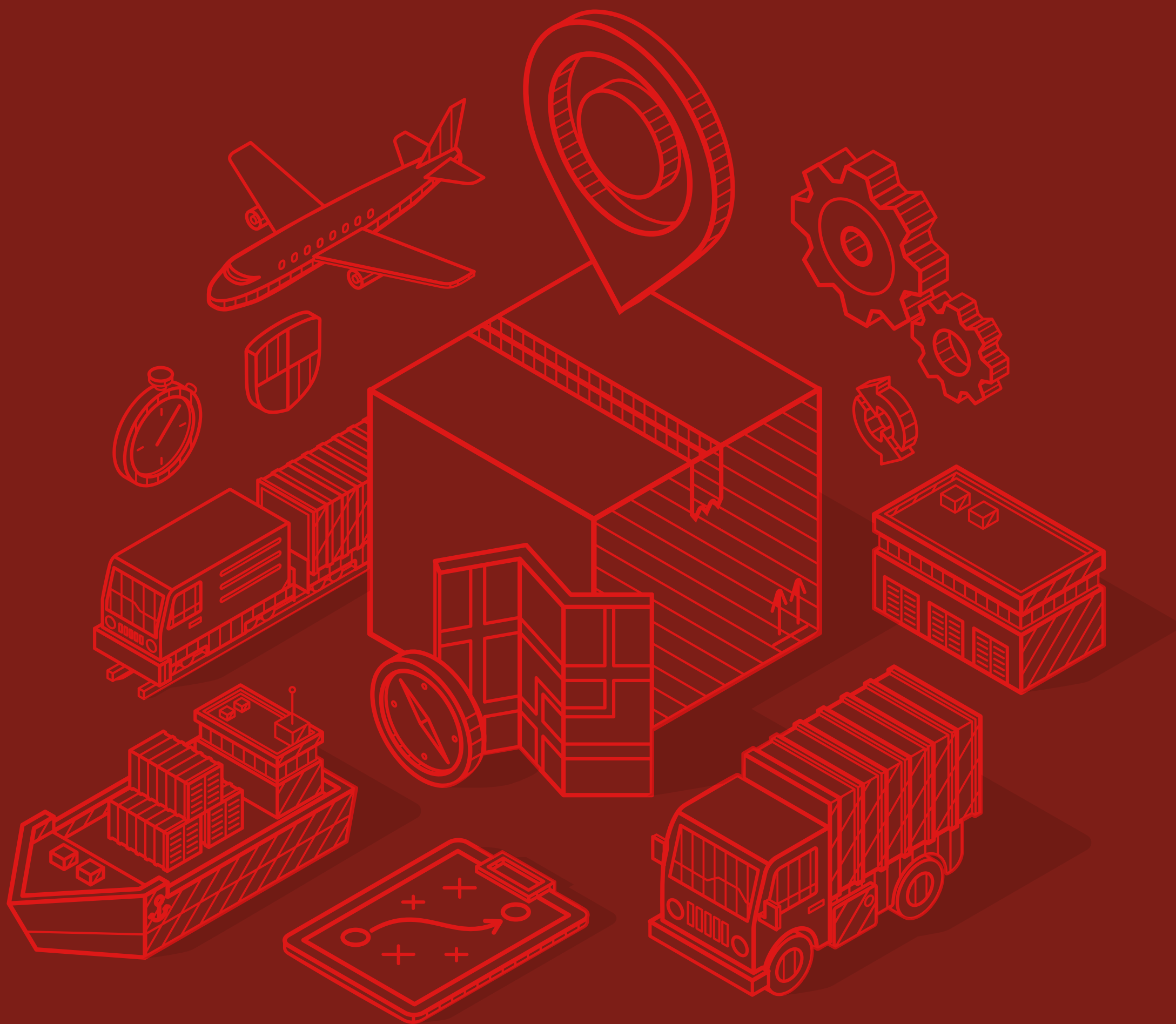


Source: China National Bureau of Statistics, 27 April 2020, 07:00GMT

⁵ Reuters - "Exclusive: Indian rice exports suspended on supply chain disruption - industry" 3 April 2020

⁶ BBC - "Coronavirus: A visual guide to the economic impact" 30 April, 2020

⁷ Bloomberg - "Japan to Fund Firms to Shift Production Out of China" 8 April 2020



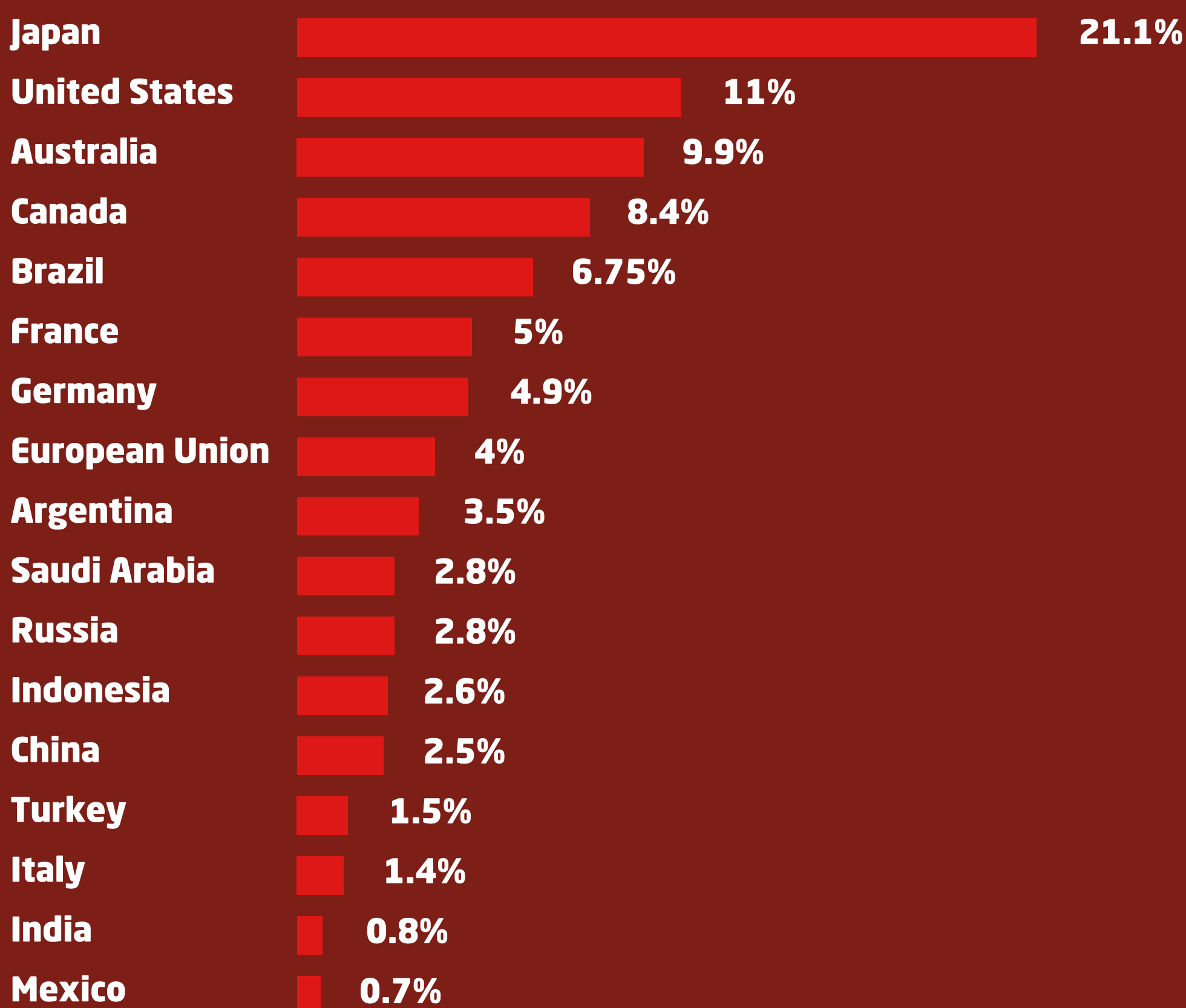
OPPORTUNITY

The need for higher inventory levels and the recent growth in e-commerce have put the spotlight on industrial real estate, and investors have already begun identifying opportunities. Investment in logistics is of higher priority than ever before. For example, private equity firm Blackstone recently agreed a £120m deal to buy 22 logistics sites across the UK as online shopping soars in response to the coronavirus pandemic⁸. In the MENA region, there is sufficient supply of industrial real estate at the free zones adjacent to ports. Some of the larger free zones include King Abdullah Economic City (KAEC) in Saudi Arabia next to King Abdullah Port, Khalifa Industrial Zone Abu Dhabi (KIZAD) in the UAE next to Khalifa Port, Jebel Ali Free Zone (JAFZA) in the UAE next to Jebel Ali Port, and Sohar Port and Free Zone in Oman next to Sohar Port.

⁸ Financial Times - "Blackstone ups bet on UK ecommerce warehouses" 22 March 2020

The supply-side of 'supply chains', however, only tells half the story. Despite high levels of automation and advanced robotics in manufacturing industries such as the automobile sector, sales have collapsed⁹. The pandemic has shown that securing the supply-side capacity of supply chains alone does not prevent the disruption of business. The interruption of highly automated supply chains¹⁰, the shutdown of automated production plants, and the laying off of thousands of staff across countries with highest rates of robotics density – China, Germany, Japan, South Korea and the United States – are a testament to that¹¹. It has become clear that no amount of automation can prevent a recession if 'human agency', the ability of humans to engage in social and economic activities, is undermined. Around the world, governments have had to inject trillions of dollars and euros into their citizens' pockets in order to keep such agency alive¹². Human agency lies at the core of all economic activities and the focus should now be on investing in technologies that protect and enhance human productivity.

Value of COVID-19 fiscal stimulus packages in G20 countries as of April 2020, as a share of GDP



⁹ Financial Times - "Nissan warns of nearly \$900m loss as sales collapse" 28 April 2020

¹⁰ Institute for Supply Management - "COVID-19 Survey: Impacts on Global Supply Chains" 11 March 2020

¹¹ CNET - "Honda, Nissan to lay off 10,000 workers each as coronavirus hits economy" 7 April 2020

¹² Statista - "Value of COVID-19 fiscal stimulus packages in G20 countries as of April 2020, as a share of GDP" April 2020



Economic activity requires both supply chains and consumer demand chains, both of which can be automated to a degree. Currently, the automation of consumer demand chains primarily occurs through online platforms, such as Netflix, Coursera, Amazon, or Uber. But there is a limit to the demand that humans can consume or initiate using these largely digital channels. The next phase of automation in demand may well come through technologies that link the digital and physical worlds, such as 3D printing, unmanned ground vehicles (UGVs), unmanned aerial vehicles (UAVs), the internet of things (IoT), augmented reality (AR), exoskeletons and companion robots. For example, 3D printing allows a customer to design a pair of shoes or choose a ready template and print it at one of the brand's nearest 3D Printing booths. UGVs or UAVs would then pick such products up and drop them at the customer's doorstep. Another example would be Smart Home technologies, such as a smart fridge that automatically organizes and orders a household's weekly or daily basket of refrigerated products. In this example, technology is mediating human agency, and allowing humans to do more. The list of demand chain technologies is long and many of them already exist as so-called 'minimum viable products', ones that have sufficient features to attract early adopters while acting as prototypes and providing feedback for manufacturers.¹³

What is special about such technologies is that they enhance and sustain human agency. For example, if more consumers today could fly their own drones to run errands, operate companion robots to perform tasks and use smart wearables and exoskeletons to avoid hazards such as infections, there would have been less urgency to lock down economic activity and global supply chains could be sustained.

¹³ Science Business - "Viewpoint: Automate demand chains to protect economies in times of crisis" 22 April 2020

LOOKING AHEAD

Short term insight and recommendations (during the COVID-19 outbreak)



- 1**
Free zones could introduce incentives to logistics tenants to support this industry.
- 2**
Manufacturers can produce products with longer shelf-lives - years, or even decades - minimizing the impact from potential supply chain disruptions.

Short to long term insights and recommendations (post COVID-19)



- 1**
Development of a regional storage hub, allowing nearby nations to secure their supply chains, and allowing suppliers to maintain demand.
- 2**
Increased automation and robotics could be introduced in manufacturing and ports, creating a resilient supply chain. of touch-screens.



THE LONG VIEW

COVID-19 is forcing countries, businesses and individuals to reassess two critical elements in the economic system: the supply chain and consumer demand. In the future, manufacturing along broadly conventional lines will continue for some complex items such as spare parts, automobiles and white goods. However, localization will be increasingly important and while there will be a reliance on 'factories' of sorts, closeness to regional or national distribution centres will be critical. Similarly, in the medium to long-term, 3D printing will be used as a tool to avoid the need to construct high-tech factories and ship products half way across the world. Instead, all that will be needed will be high-tech 3D printers.

The second transformation we will observe will lie in the automation of consumer demand. The internet of things (IoT) will be central to this. For example, the refrigerator will place the order when products are running low, or even when they are expected to run low - say, because little Timmy is going to have a sleep-over and five friends will all want cereals the next morning. In the future we may see a transformation in the consumer product marketing, akin to the Nespresso phenomenon whereby capsule-fed coffee machines have become free because the market lies in the capsules. We could expect many of today's consumer products to become free when we sign up for a subscription to autonomous fridge re-stocking, for example. Similarly, we can expect devices similar to Alexa or our mobile phones to be free because they represent a company's extension into our lives to capture and understand our needs for a set of subscription services.