



**TOTAL RISK PERSPECTIVE:**

# **ECONOMIC RISKS OF CORONAVIRUS**



China has spent the beginning of 2020 grappling with the outbreak of 2019 novel Coronavirus, a highly-contagious new respiratory illness that has an alarming case fatality rate of about 2%—a rate that is many times higher than the H1N1 influenza virus.

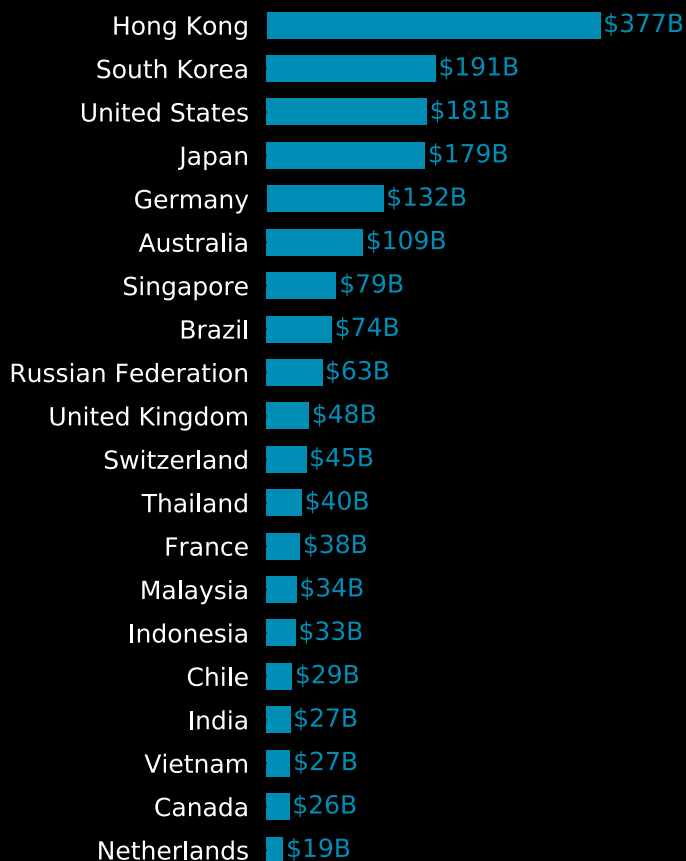
The economic consequences in China have been stark. Aggressive containment efforts have left over half the country's population in lockdown. Airline traffic has ground to a stand-still, and production in many factories has stopped. While the experience in China could presage slowdowns in other countries as the disease spreads, a second contagion will occur as the slowdown in China spills over with its trading partners around the world.

As the world's second largest economy, the fall in demand from Chinese consumers will impact exporting countries around the world. More importantly, since China is the global leader in manufacturing, shortages from Chinese suppliers will reverberate through global supply chains. In sheer dollar terms, the United States, Japan, South Korea, and Germany are among the economies most exposed.

## CHINA'S LARGEST TRADE PARTNERS (2018)

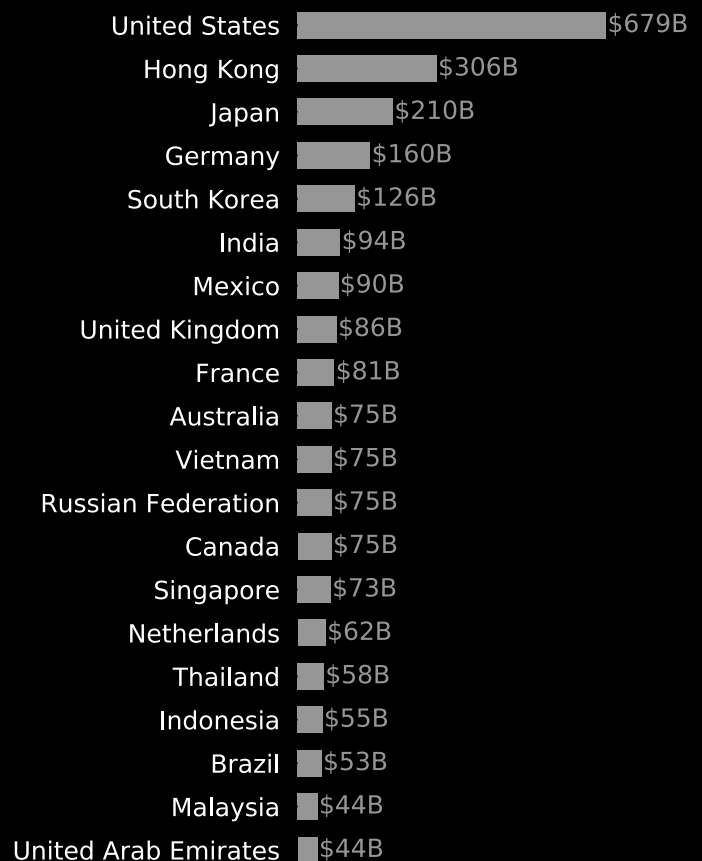
### EXPORTS TO CHINA

(in current US dollars)



### IMPORTS FROM CHINA

(in current US dollars)



While the dollar value of a country's trade with China is an important consideration, the risk that a trade shock originating in China will cause major economic disruptions in another country depends on the magnitude of Chinese trade relative to the overall size of a country's economy.

To clarify the connections, we separately consider the importance of trade to a country's economy and the importance of China to a country's trade. Countries high on both dimensions are most susceptible to a trade shock with China.

## THE IMPORTANCE OF TRADE FOR A COUNTRY'S ECONOMY

To measure the importance of trade for each country, we calculate the ratio of total imports and exports as a fraction of GDP. Since the trade balance (exports minus imports) is included in the calculation of GDP, exports plus imports can be larger than GDP, so the percentage can be greater than 100.

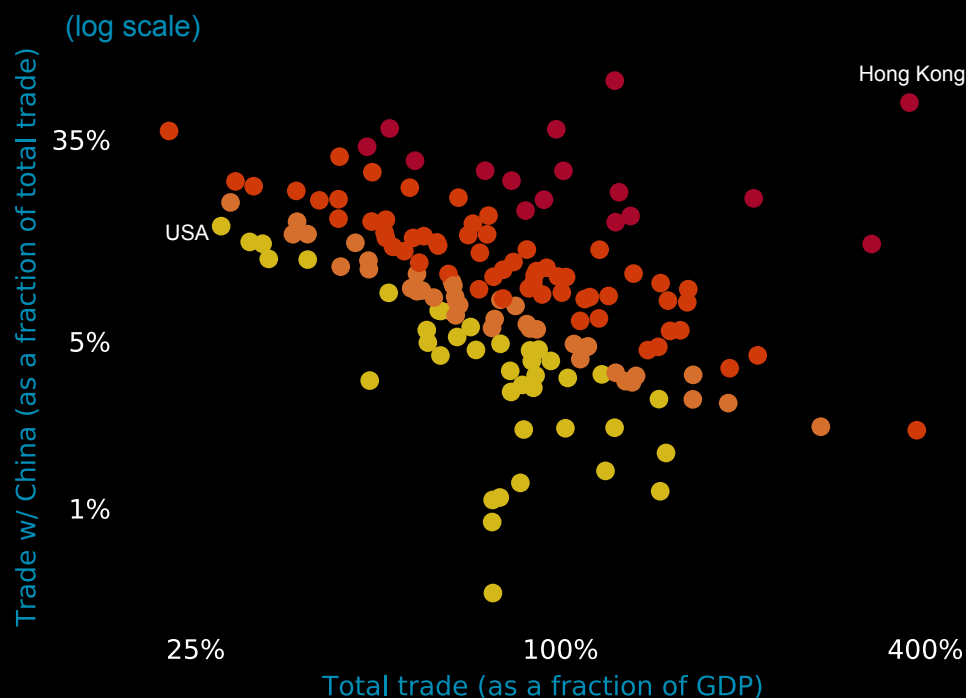
$$\frac{\text{Total Trade}}{\text{GDP}}$$

## THE IMPORTANCE OF CHINA FOR A COUNTRY'S TRADE

To capture how intertwined a country is with China's economy, we look at the ratio of imports and exports coming from China as a fraction of total imports and exports with all countries. The value is a percentage between 0 and 100.

$$\frac{\text{Trade with China}}{\text{Total Trade}}$$

## DIMENSIONS OF SUSCEPTIBILITY TO A CORONAVIRUS-INDUCED TRADE SHOCK WITH CHINA



## Trade with China (as a fraction of GDP)



## ECONOMIC SUSCEPTIBILITY TO A SUDDEN DECLINE IN TRADE WITH CHINA

Combining the importance of trade and the importance of China for a country's trade gives a single measure of a country's susceptibility to economic contagion. The bar chart shows the twenty countries most at risk. The map replicates for each country the color depicted on the 2x2 graphic on the last page. Dark red countries are most at risk, followed by red, orange and yellow.

