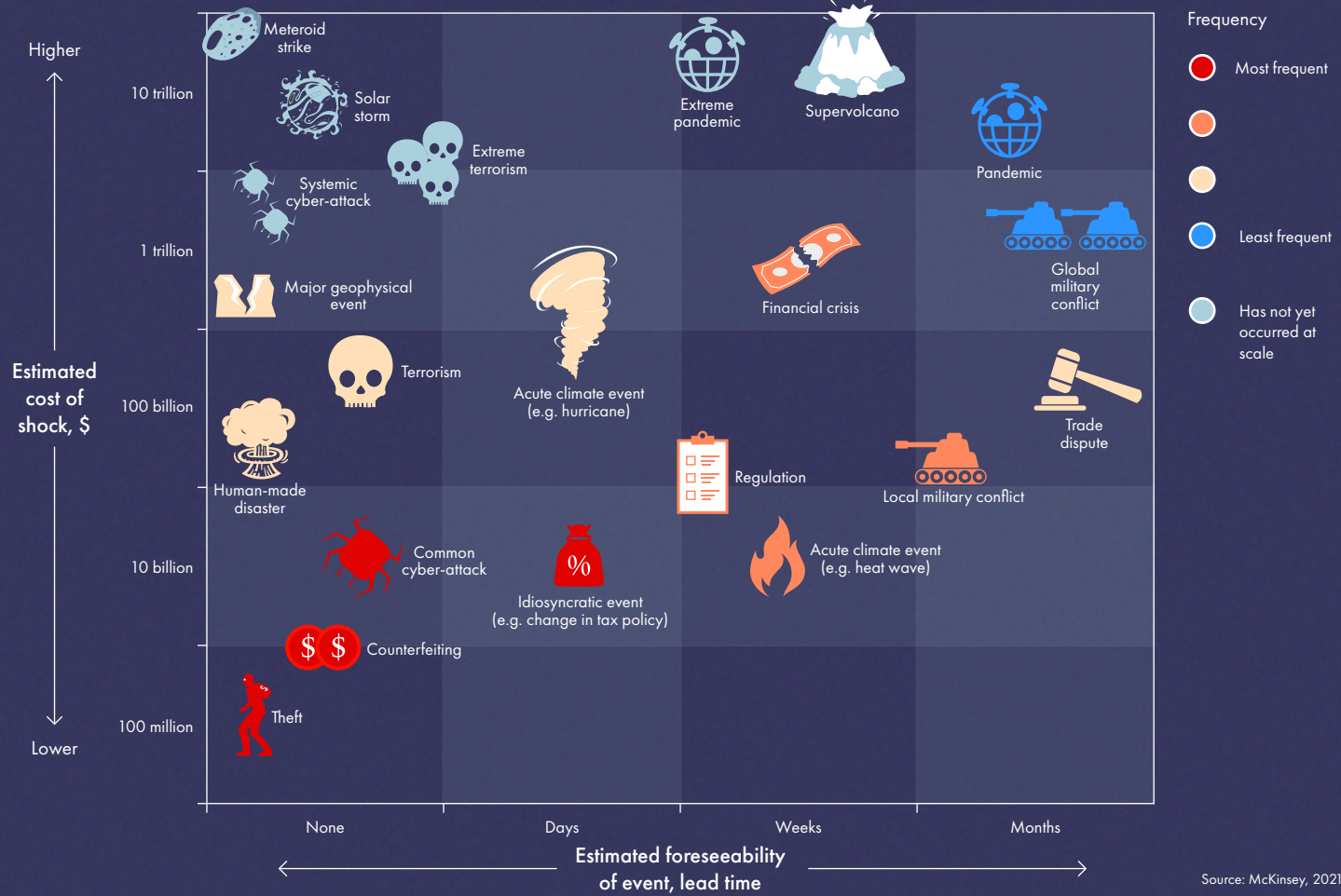


# RISKS TO SUPPLY CHAIN STABILITY

The pharmaceutical industry's supply chain has a global reach, positioning it as a challenging system to maintain and protect. In the wake of COVID-19 disruptions, GOLD investigates the potential impact of unpredictable events on the industry's complex distribution network to understand its resilience and vulnerability

## POTENTIAL THREATS TO PHARMACEUTICAL SUPPLY CHAINS



## A SPOTLIGHT ON PANDEMICS

**Branded drug manufacturers**

Branded drug manufacturers are resilient against pandemics as they have at least several months of safety stock in APIs, finished products and products in the distribution channel.

**Generic drug manufacturers**

Generic manufacturers are more at risk than branded manufacturers as they have lower profit margins, higher dependence on countries for supply chain and are more affected by API shortages.

Source: EY, 2021

## BIGGEST SUPPLY CHAIN VULNERABILITIES

The pharmaceutical industry is most exposed to large-scale cyber-attacks and trade disputes



## A FOCUS ON CYBER-ATTACKS

**2017: Merck / NotPetya**

The NotPetya malware virus infected 30,000 computers at Merck across their sales, manufacturing and research units. It shut down the company for two weeks and the financial damage was \$870m.

**2020: Dr Reddy's Laboratories**

A cyber-attack to steal vaccine research forced the Indian pharma company to shut down all of its facilities across the world. It closed plants in the US, UK, Brazil, India and Russia.



Source: McKinsey, 2021