

Lloyd's City Risk Index 2015-2025

Analysing the economic exposure from 18 threats over ten years from 2015

Understand the risks: www.lloyds.com

Tokyo, Japan

Average GDP growth rate: 2.03%

Average annual GDP: \$1.47trn*

Total GDP@Risk: \$153.28bn

Share of Average annual GDP: 10.44%

GDP@Risk ranking

Global: 2 Regional: 2 National: 1

GDP@Risk by threat type

Threat	GDP@Risk	Share of Total GDP@Risk
Wind storm	\$29.06bn	18.96%
Market crash	\$22.90bn	14.94%
Oil price shock	\$21.38bn	13.95%
Earthquake	\$18.83bn	12.28%
Flood	\$17.65bn	11.51%
Human pandemic	\$12.31bn	8.03%
Volcano	\$9.04bn	5.90%
Cyber attack	\$6.09bn	3.98%
Tsunami	\$3.75bn	2.44%
Drought	\$2.87bn	1.87%
Solar storm	\$2.42bn	1.58%
Power outage	\$2.27bn	1.48%
Plant epidemic	\$1.47bn	0.96%
Freeze	\$1.31bn	0.86%
Sovereign default	\$0.75bn	0.49%
Heatwave	\$0.67bn	0.44%
Nuclear accident	\$0.30bn	0.19%
Terrorism	\$0.22bn	0.14%

Lloyd's City Risk Index 2015-2025

Analysing the economic exposure from 18 threats over ten years from 2015

Understand the risks: www.lloyds.com

Insight

Tokyo has the Index's 2nd highest Total GDP@Risk, owing to its combination of high economic value and large potential economic losses from both Natural and Manmade threats. However, as it is one of the world's richest cities, its exposure relative to its Average annual GDP (10.44%) is comparatively low.

Tokyo has the Index's highest economic exposure to Flood, Tsunami, Oil price shock, Power outage and Solar storm, and ranks highly for Volcano (2nd), Heatwave (3rd), Market crash (3rd), Wind storm (4th), Drought (4th), Freeze (4th), Human pandemic (5th), Earthquake (6th), Cyber attack (9th), Plant epidemic (10th) and Nuclear accident (11th). Despite this preponderance of risk exposures, less than 0.5% of its Total GDP@Risk is attributable to Sovereign default thanks to its bond market being one of the world's strongest.

While Natural threats make up the majority of its potential losses at almost \$100bn, Manmade threats are also significant - with almost a third of the city's economic vulnerability derived from Market crash and Oil price shock alone. Tokyo is one of the world's major financial centres, which accounts for its economic exposure to market risk, while Japan has few fossil fuel resources and has to import about 84% of its energy needs. The situation is exacerbated by the idling of its nuclear fleet in the aftermath of Fukushima, although recently (as of August 2015) Japan restarted its first nuclear reactor under new safety rules.

Tokyo's economic exposure to Emerging threats (\$22.30bn, 14.55%) is the 5th highest worldwide, with each threat in this category associated with at least US\$1bn of risk.

Sources:

<http://www.world-nuclear.org/info/Country-Profiles/Countries-G-N/Japan/>

<http://www.therichest.com/rich-list/world/the-top-10-richest-cities-in-the-world/>