

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

Osaka, Japan

Average GDP growth rate: 2.01%

Average annual GDP: \$584.59bn*

Total GDP@Risk: \$79.32bn

Share of Average annual GDP: 13.57%

GDP@Risk ranking

Global: 8 Regional: 4 National: 2

GDP@Risk by threat type

Threat	GDP@Risk	Share of Total GDP@Risk
Wind storm	\$18.45bn	23.26%
Flood	\$13.83bn	17.43%
Market crash	\$9.11bn	11.49%
Oil price shock	\$8.51bn	10.73%
Cyber attack	\$7.57bn	9.54%
Earthquake	\$7.49bn	9.45%
Human pandemic	\$4.90bn	6.18%
Volcano	\$3.60bn	4.54%
Tsunami	\$1.49bn	1.88%
Drought	\$1.14bn	1.44%
Solar storm	\$0.97bn	1.22%
Power outage	\$0.90bn	1.14%
Plant epidemic	\$0.59bn	0.74%
Sovereign default	\$0.30bn	0.38%
Heatwave	\$0.27bn	0.33%
Nuclear accident	\$0.12bn	0.15%
Terrorism	\$0.09bn	0.11%
Freeze	\$0.00bn	0.00%

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Insight

Osaka ranks highly in the Index for its GDP@Risk from both Natural (6th) and Manmade (16th) threats. More than half of its economic exposure is derived from Wind storm (10th), Flood (2nd) and Earthquake (17th).

Its Wind storm and Flood threats relate to the risk of typhoons damaging homes and businesses situated on the coast, with high tides and landslips particular dangers associated with typhoons and heavy rain in Japan. In 1934 a typhoon caused a 5.5m storm surge that destroyed 43,000 buildings and killed more than 3,000 people.

The city ranks 2nd in the Index for Tsunami and 7th for Volcano. Japan is home to more than 100 active volcanoes, 12% of the world's total. Its other top 20 Natural threats include Heatwave (11th) and Drought (20th).

As the second largest city in the world's third biggest national economy, Osaka also ranks highly in the Index for Manmade threats, notably Cyber attack (6th), Oil price shock (9th), Solar storm (10th) and Nuclear accident (22nd). In 2014, a lawsuit prevented Ohi nuclear power station in the north of the city from restarting in the wake of the Fukushima disaster, the first successful case of its kind.

Its risk from Emerging threats (\$14.02bn, 17.67%) derives principally from Cyber attack and Human pandemic.

Sources:

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