SINGAPORE

Climate Threats
- High SLR risks as the majority of land lies <15m above sea level and 30% (including the CBD) is <5m above sea level
- Experiencing 2x the speed of global SLR due to its location; its sea level rose 4.8mm/yr between 1993-2009 versus the 2.8mm/yr rise globally
- Low storm surge risk due to extremely low frequency of strong typhoons

Government Actions
- “Life or death matters” was how the Prime Minister Lee Hsien Loong described climate change in 2019
- S$100bn to be spent over the next 100 years to mitigate SLR and related physical risks such as flooding
- Established the National Climate Change Secretariat in 2010 which is directly controlled by the PM’s Office
- Mandated constructions above mean sea level e.g. raised the min. land reclamation from 3m to 4m & new terminals at airport and port to be built 5.5m above mean sea level

CWR APACCT 20 INDEX – BENCHMARKING COASTAL THREATS FOR 20 APAC CITIES
Locked-in SLR Impacts
- 0.2% Pop
- 5% Land

CWR APACCT 20 Ranking
- Least Threats
- Most Threats

4°C CWR APACCT 20 Index
- Full Index
- ex. Govt Action

THE ECONOMY AT STAKE

Economy Overview
Home to most of the technology MNC headquarters in Asia such as Google and Facebook, Singapore was the most competitive economy according to the World Economic Forum in 2019. It was the world’s 14th largest export economy in 2018. Also, Singapore is the 3rd largest exporter of refined petroleum, making up 8.6% of the global market in 2018 and has the largest bunkering port in the world. Tourism is also a key industry as Singapore was ranked the 5th most visited city (14.67 million) by the Mastercard Global Destination Cities Index 2019. Singapore is also the 4th largest global exporter of high-tech products and its manufacturing sector contributes 21% to its GDP. It invests heavily in innovation thus has attracted well-known brands such as Accenture & Siemens to set up their manufacturing labs locally.

GDP by Sector
- Manufacturing 21%
- Business Services 19%
- Wholesale & retail trade 17%
- Finance & Insurance 14%
- Others 33%

Import & Export
- GDP US$364bn
- Import US$405bn
- Export US$405bn

Import & Export = 211% of GDP

Airport Ranking
(Cargo volume in metric ton)

Port Ranking
(Cargo volume in TEU)

This factsheet is part of the CWR Coastal Capital Threat Series. For methodology see Avoiding Atlantic: The CWR APACCT 20 Index – Benchmarking coastal threats for 20 APAC cities with finance sector input
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1.5°C Warming: 2.9m SLR

What's at risk...

- 13,895 Affected (0.2%)
- 31 km² Affected (5%)

Airports (SIN)

Port

Stock Exchange

CBD

Note: Port of Singapore will be flooded (2 out of the 5 identified port terminals affected).

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4°C Warming: 8.9m SLR

What's at risk...

- 133,675 Affected (2%)
- 91 km² Affected (14%)

Airport (SIN)

Port

Stock Exchange

CBD

Note: Port of Singapore will be flooded (all 5 identified port terminals affected).

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Note: The NASA SRTM-30m elevation data maps were used to benchmark coastal threats across the 20 cities to build the CWR APACCT 20 Index. Since our analyses show that impacts worsen when higher granularity maps (5m) are used, for more in-depth analysis, please use such maps where available. The median level of the locked-in SLR range was used for both the 1.5°C and 4°C scenarios above so impacts could be worse at the higher end of the ranges. To see SLR low/median/high range impacts and differences in mapping granularity – please see our report “Avoiding Atlantis: The CWR APACCT 20 Index”. Such permanently submerged areas have implications for financial tail risks – for more on this see “Sovereigns at Risk: APAC Capital Threats”. Local tide adjustments were not made.