

# Coronavirus – impact on Asia

The potential spillovers of China's coronavirus on Asia's tourism, trade, domestic consumption and financial markets



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## Key points

- The spread of coronavirus – 2019-nCov – poses tangible macro risks to Asian economies outside China
- Assuming the virus remains broadly in China, we examine the four channels through which we believe the effect will spread – tourism, trade, domestic consumption and financial markets
- Small/open economies, such as Hong Kong, Taiwan, Korea, Singapore and Thailand are vulnerable to negative spillovers from China, while domestic-oriented economies – such as India and Indonesia – are more insulated
- The outbreak casts clouds over the anticipated trade recovery and adds additional risks to an already lacklustre economy. We expect policy responses from Asian authorities as the crisis deepens
- Broader risks would be associated with a more significant outbreak of the virus. Then, economies with high density populations, low health security index and high domestic demand components etc. could be severely affected. Hong Kong, Singapore and Taiwan would appear most vulnerable.

## Rising concerns of novel Coronavirus

Following the first case of the novel coronavirus at the end of December 2019, the outbreak has spread to more than 28 countries, including 16 in Asia, with over 500 confirmed cases and two deaths outside China at the time of writing. The World Health Organization (WHO) has officially declared the outbreak a public health emergency of international concern (PHEIC), prompting many countries to raise travel alerts on China, restrict flights and impose visa restrictions on Chinese visitors. Following our research notes on the potential economic impact on China<sup>1</sup> and the global economy<sup>2</sup>, we move to examining the potential impact for the Asia region.

As close neighbours, with significant economic and social interactions with China, Asian countries are naturally vulnerable to the contagion from the virus. Since the first case outside China was identified in Thailand on 13 January, the number of infections has risen significantly across Asia (Exhibit 1). Compared to Severe Acute Respiratory Syndrome (SARS), coronavirus appears to be less deadly, but more infectious and difficult to detect early on. So far, the virus seems to be better contained in China thanks to the aggressive quarantine methods enacted by the Chinese authorities. But

<sup>1</sup> Yao, A., "Coronavirus: First thoughts on the potential economic impact on China", AXA IM Research, 4 February 2020.

<sup>2</sup> Macro Research Team, "Coronavirus – tracking the path, anticipating the impact", AXA IM Research, 11 February 2020.

with new infections outside China being discovered each day, other countries cannot lower their guard.

**Exhibit 1: nCoV is more contagious than SARS**

	2003 SARS		2019 nCoV	
	# of cases	# of deaths	# of cases	# of deaths
HK	1755	299	50	1
TW	346	37	18	-
SG	238	33	50	-
VT	63	5	15	-
PH	14	2	3	1
TH	9	2	33	-
MA	6	2	18	-
IN	5	0	3	-
KR	3	0	28	-
ID	3	0	-	-

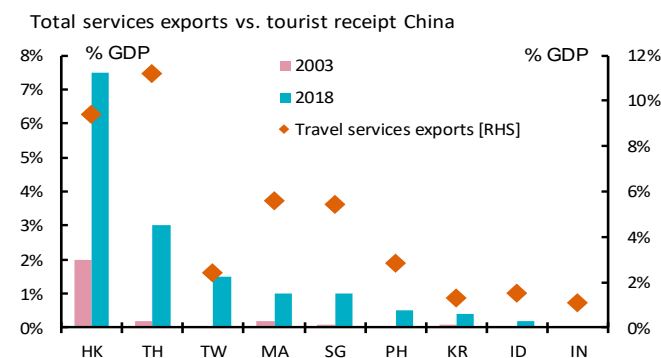
Source: WHO, National Health Commission and AXA IM Research, Jan 2020

We believe there are four channels of transmission that could spread the economic impact of a virus that remains broadly contained within China to the rest of the world. These are tourism, trade (of goods), domestic consumption and financial markets. As the situation is still unfolding, we will refrain from providing precise quantitative estimates, but focus on explaining the channels of spillover and assessing the relative vulnerability.

**Four channels of impact**

**Tourism is the most direct channel of shock transmission.** As the Chinese government has imposed strict travel bans and many airlines suspend flights, the number of international trips by Chinese residents has fallen precipitously. This will hit the tourism industry in Asia, with the risk of the shock enlarged by non-Chinese people also starting to reduce travel to the region for fear of infection, as occurred during the SARS outbreak in 2003.

**Exhibit 2: Tourist receipts have grown substantially**



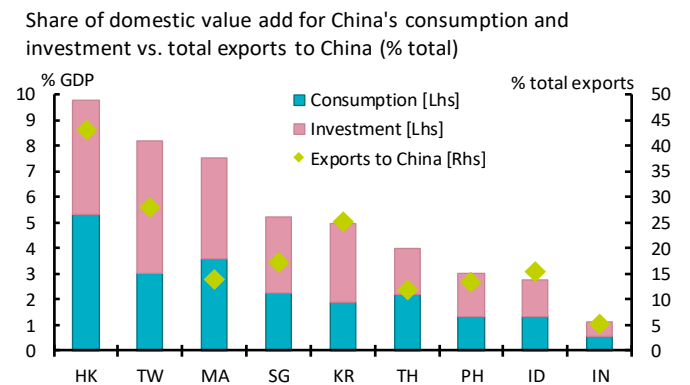
Source: Haver, CEIC, ANZ, Morgan Stanley, and AXA IM Research, Jan 2020

Since SARS, regional economies – such as Hong Kong, Thailand, Korea and Taiwan – have become more exposed to Chinese tourists, who now account for almost 80% of all visitors to Hong Kong, and 30% to Thailand and Korea. Exhibit 2 shows the extent of increase in tourism receipts from China across Asia between 2003 and 2018. In relative terms, the large

China exposure and the importance of the tourism industry make Hong Kong, Thailand, Vietnam and Singapore particularly vulnerable to reduced Chinese tourists.

**The second channel is trade (of goods).** With China being a key source of final demand, a sharp slowdown in the Chinese economy – to 4~4.5% in Q1 from 6% in Q4 – will be painful for Asian trading partners. Exhibit 3 presents Asia’s exports to China as a percentage of total exports. The countries that are most exposed are small and open economies such as Hong Kong, Taiwan, Korea and Singapore, whereas more-domestically oriented economies such as Indonesia and India are less vulnerable to a spillover from China. Exhibit 3 also traces the source of final demand and appears to confirm Hong Kong and Taiwan’s vulnerability, but Malaysia and Thailand are also quite exposed to Chinese consumption, which is expected to be harder hit than investment in the first instance.

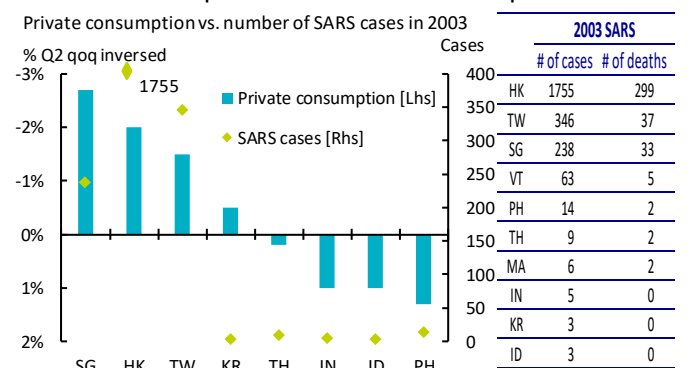
**Exhibit 3: Asia’s trade is highly exposed to China**



Source: OECD, ANZ, and AXA IM Research, Feb 2020

Besides the trade-related spillovers, many Asian countries will also be vulnerable to shocks to domestic demand. The experience of SARS shows that countries and regions that saw more local infections experienced sharper declines in domestic consumption growth (Exhibit 4). This does not bode well for the economies of Thailand, Singapore, Hong Kong and Korea, as fears of infections and tighter government controls could hinder domestic activity.

**Exhibit 4: Hong Kong, Singapore and Taiwan will likely see the most impact on domestic consumption**

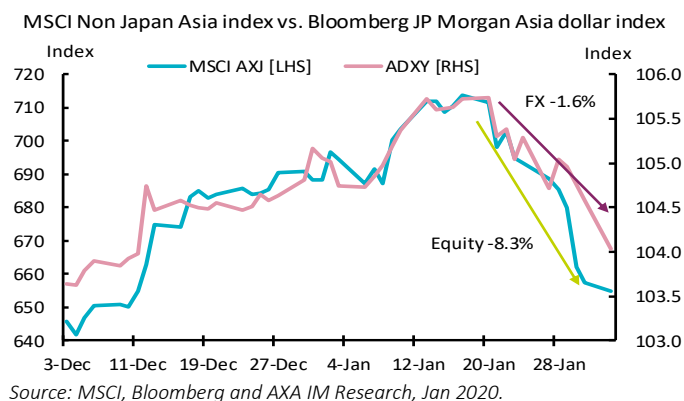


Source: CEIC, WHO and AXA IM Research, Feb 2020

	2003 SARS	
	# of cases	# of deaths
HK	1755	299
TW	346	37
SG	238	33
VT	63	5
PH	14	2
TH	9	2
MA	6	2
IN	5	0
KR	3	0
ID	3	0

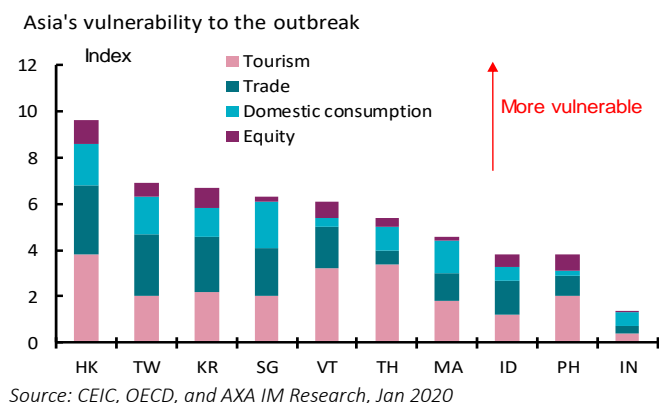
We are particularly concerned about Hong Kong due to its already dire economy going into the epidemic, with a double whammy now set to deepen and prolong the economic recession. Elsewhere, although there is scope for policy response where there is a need, the policy space is generally more limited now than in 2003. At a time when Asia is already struggling to recover from a trade-induced soft patch last year, a vicious epidemic could be the last straw that tips these economies into a more pernicious downturn in 2020.

### Exhibit 5: Financial markets have reacted negatively



Finally, the region’s financial markets have reacted negatively to the virus outbreak. Both stock and currency markets have fallen sharply in the past two weeks, with the MSCI Asia Index down by as much as 8.3% and the currencies falling by almost 2% against the US dollar (Exhibit 5). Since the A-share market was closed due to the Lunar New Year, stock markets that serve as China proxies, such as the Hang Seng and Korea’s KOSPI, were used to express concerns about the outbreak. Falling equity markets and wider credit spreads could tighten financial conditions and add headwinds to economies.

### Exhibit 6: Small and open economies are most vulnerable to the current outbreak



**Country codes used in this text** – HK: Hong Kong; ID: Indonesia; IN: India; KR: South Korea; MA: Malaysia; PH: Philippines; SG: Singapore; TH: Thailand; TW: Taiwan; VT: Vietnam

Exhibit 6 summarizes the above discussion and presents a relative vulnerability index for the Asian economies by aggregating the four channels of shock transmission. As expected, small and open economies with a large China exposure are more vulnerable than large and inward-looking economies. Hong Kong tops the list, as expected, followed by Taiwan and Korea, while India and Indonesia are the least-impacted, sitting at the end of the spectrum.

### Broader outbreak – deeper disruption, different vulnerabilities

Yet it is still too early in the coronavirus outbreak to determine with any confidence how this disease will spread. The World Health Organization has been recording growing numbers of total confirmed cases in Asia. In fact, Hong Kong, Singapore, Thailand and South Korea have seen the number of confirmed cases rise daily and may or may not be able to contain the spread.

Should the virus spread more broadly, the channels of economic impact would not necessarily be those that spread the economic cost from a Chinese epicentre. Rather, a virus that spread more broadly throughout the region would likely weigh most heavily on economies with high density populations, relatively large service sectors, low health security index and shorter geographical distance to the place of origin. Exhibit 7 presents a ‘scorecard’<sup>3</sup> table that identifies Hong Kong, Singapore and Taiwan as economies that could be most vulnerable to a broader spread of the virus.

### Exhibit 7: Broader contagion vulnerability scorecard

	No. of SARS cases	No. of nCoV	Population density	Geographical distance to Wuhan	Global health security	Service s sector	Total vulnerability
	Person	Person	Person per sq. km of	km	Index	% GDP	Higher score = more vulnerable
HK	1755	49	7090	922	-	89	109.1
SG	238	47	7953	3444	58.7	69	103.1
TW	346	18	655	1011	-	65	101.0
PH	14	3	358	1949	47.6	60	99.6
KR	3	28	530	1386	70.2	54	98.7
TH	9	33	136	2134	73.2	57	98.2
IN	5	3	455	3570	46.5	49	97.6
MA	6	18	96	3341	62.2	53	97.2
ID	3	0	148	4192	56.6	43	95.4

Source: Global Health Security, WHO, CEIC and AXA IM Research, Jan 2020

<sup>3</sup> The final vulnerability score for each economy is calculated by summing the Z-scores for all variables and added by 100. The higher the values for

each variable, the more vulnerable, except in the case of geographical distance and global health security index.

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