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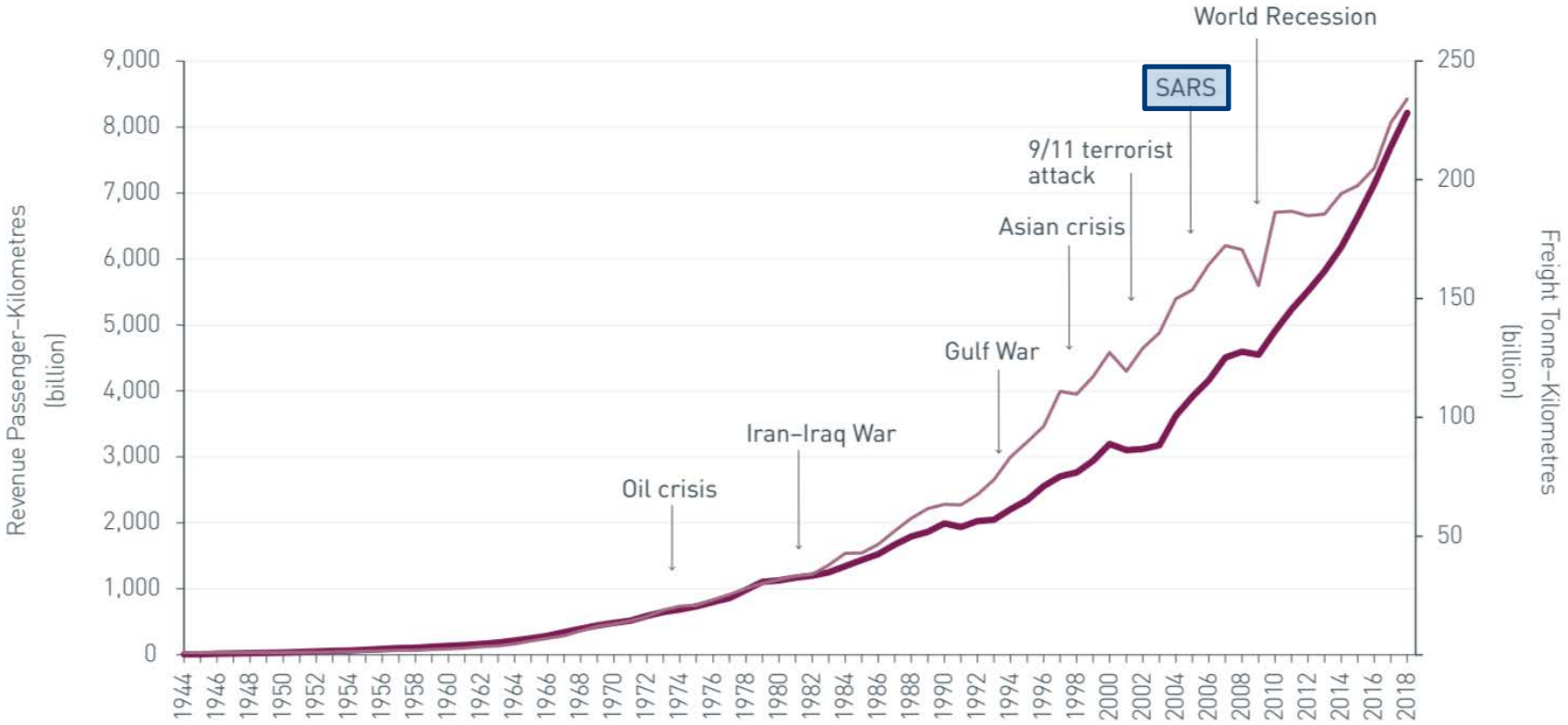
Effects of Novel Coronavirus (COVID-19) on Civil Aviation

Montréal, Canada
As of 24 February 2020

Economic Impact Analysis

Air traffic has been vulnerable to external factors including disease outbreaks

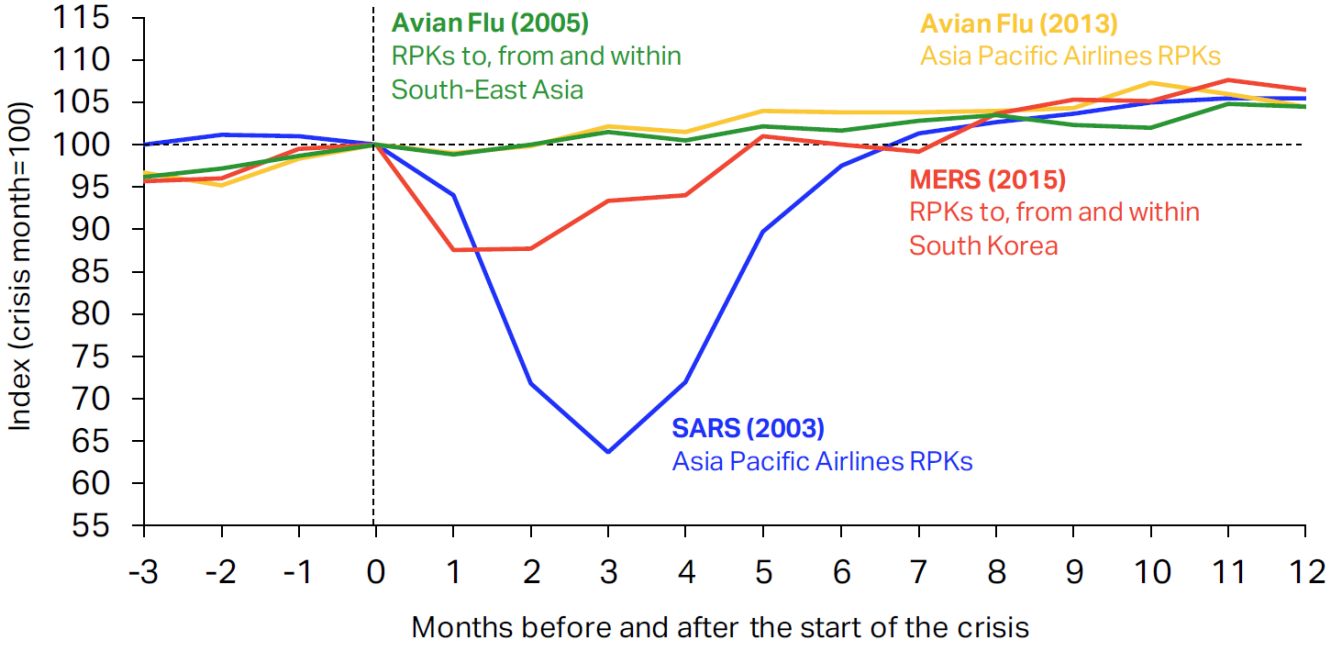


Source: ICAO Annual Report of the Council

Scheduled commercial traffic
Total (international and domestic) services

What can we learn from past experience? SARS, Aviation flu and MERS

Impact of past outbreaks on aviation



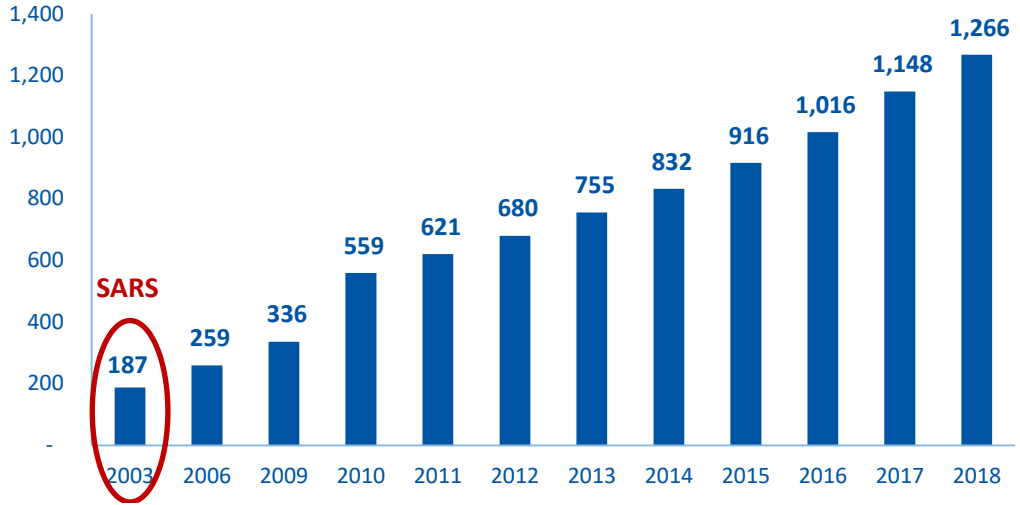
Source: IATA Economics

History shows that SARS has the most serious impact on traffic. At the height of the outbreak (May 2003), monthly RPKs of Asia-Pacific airlines were 35% lower than their pre-crisis levels. Overall in 2003, Asia-Pacific airlines lost **8% of annual RPKs and $6 billion of revenues**.

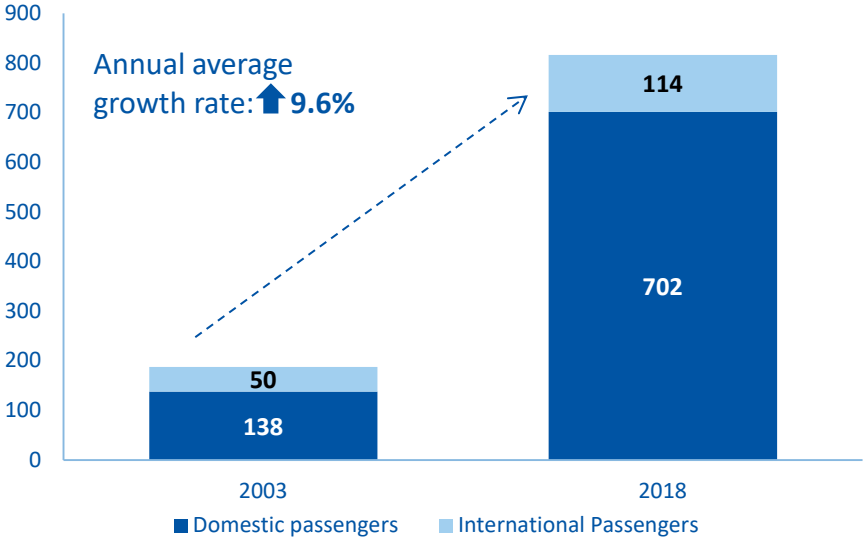
Source: IATA Economics' Chart of the Week (24 January 2020)

Chinese international traffic more than doubled since 2003 SARS spread

Total number of passenger moved through Chinese airports 2003-2018 (million of passengers)



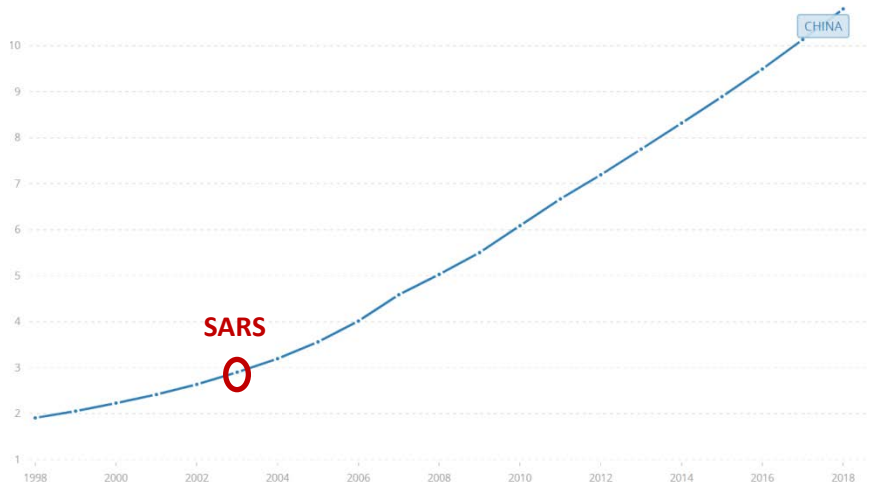
Passengers move to/from Chinese airports 2018 vs 2003



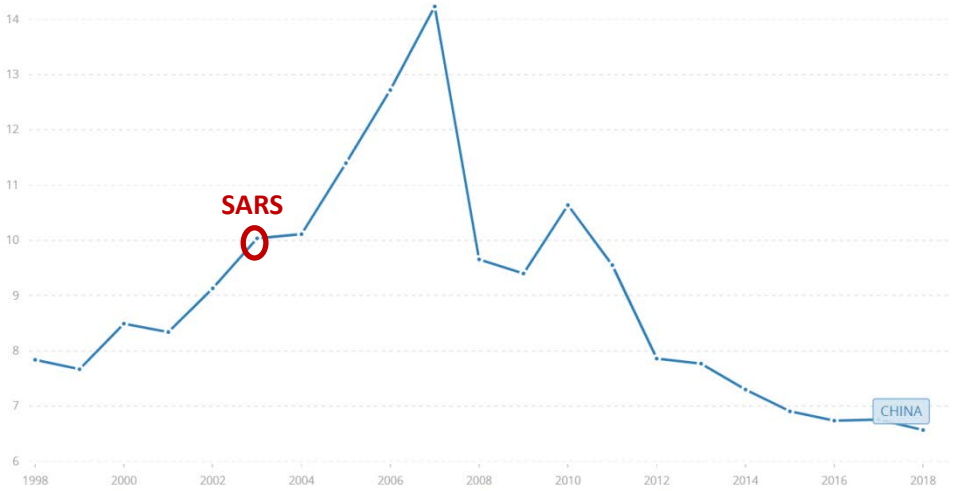
Source: ICAO-ACI Airport traffic data

Chinese economic size quadrupled since 2003 but growth rate slowed down

GDP of China
(constant 2010 USD, trillion)

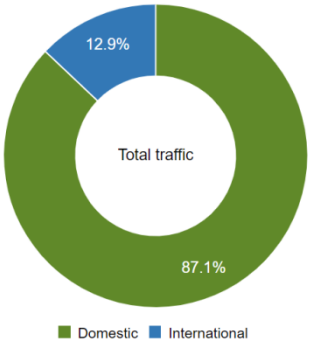


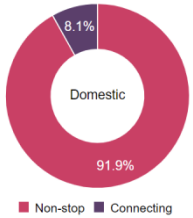
GDP Annual Growth of China
(%)

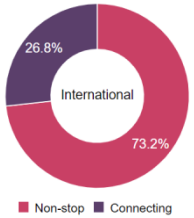


Source: World Bank Group

Air connectivity of China in terms of O-D passenger movement







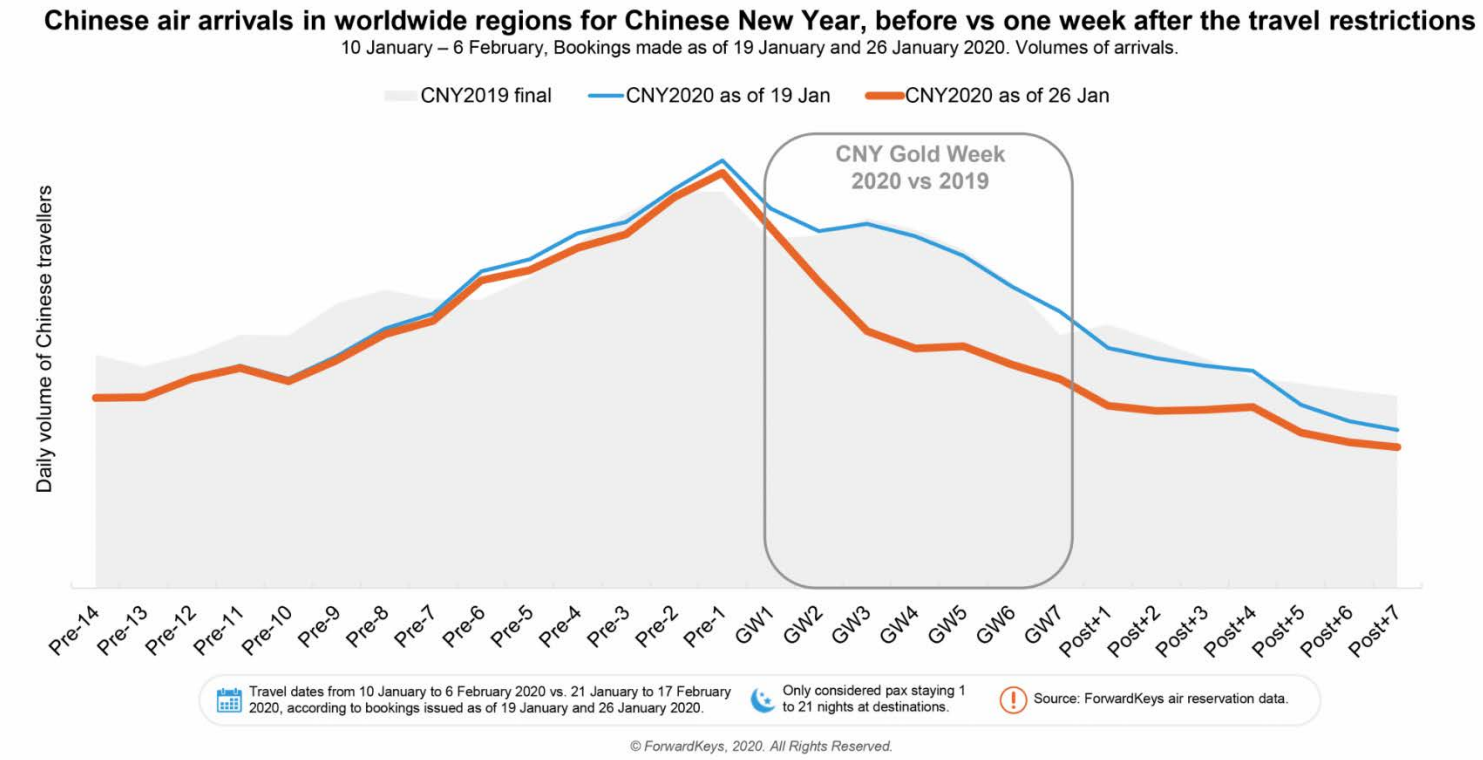
Source: ICAO-ICM MIDT data

Air connectivity of Wuhan airport in terms of O-D passenger movement

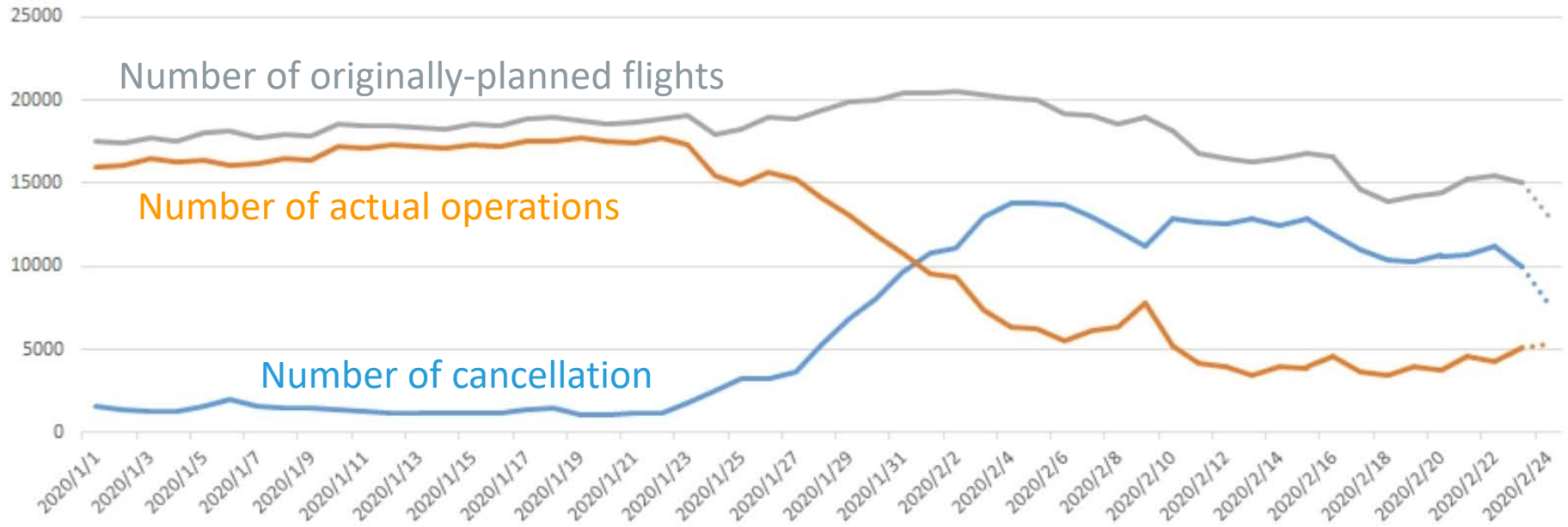
24,073,870
Total traffic

Source: ICAO-ICM MIDT data

COVID-19 outbreak caused a substantial setback in flight bookings for Chinese New Year



Flight cancellation has exceeded actual operations since 31 January 2020



Note: The above includes a) international from mainland China, Hong Kong SAR of China, Macao SAR of China, Taiwan, Province of China; b) domestic within mainland China, and c) regional between mainland China and Hong Kong SAR, Macao SAR and Taiwan Province

Source: CARNOC.com (retrieved on 24 Feb 2020)

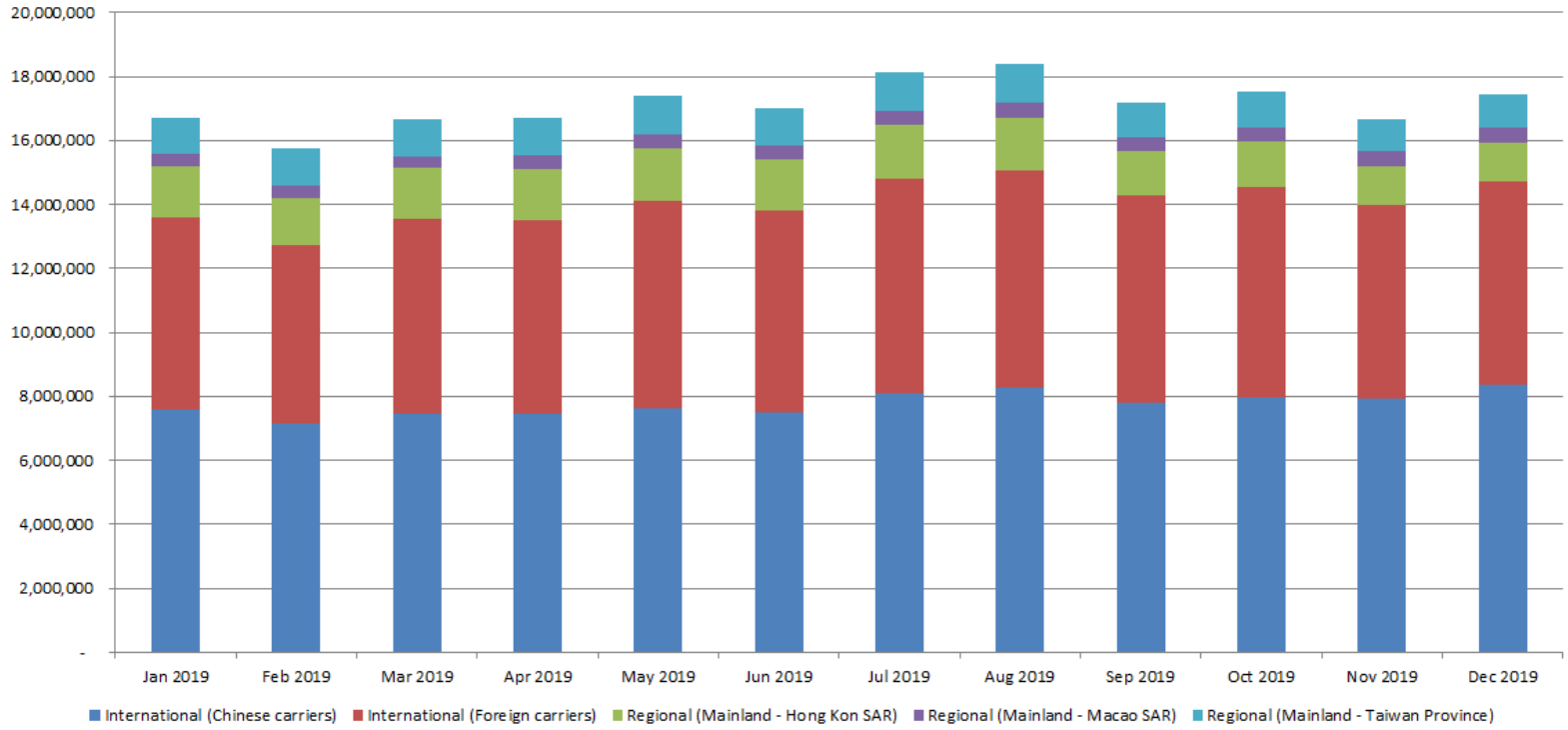
Scenario Analysis:
International Services from/to Mainland China

This is a preliminary analysis. Figures and estimates herein will be updated with the situation evolving and more information available.

Scope of analysis: Mainland China

- **"International"** refers to scheduled international passenger services from/to mainland China excluding:
  - scheduled passenger services between mainland China and Hong Kong Special Administrative Region (SAR) of China, Macao SAR of China and Taiwan, Province of China; and
  - scheduled international passenger services from/to Hong Kong SAR, Macao SAR of China and Taiwan, Province of China
- **"Regional"** refers to scheduled passenger services:
  - between mainland China and Hong Kong SAR of China
  - between mainland China and Macao SAR of China; and
  - between mainland China and Taiwan, Province of China

Number of seats offered by airlines (monthly, 2019)

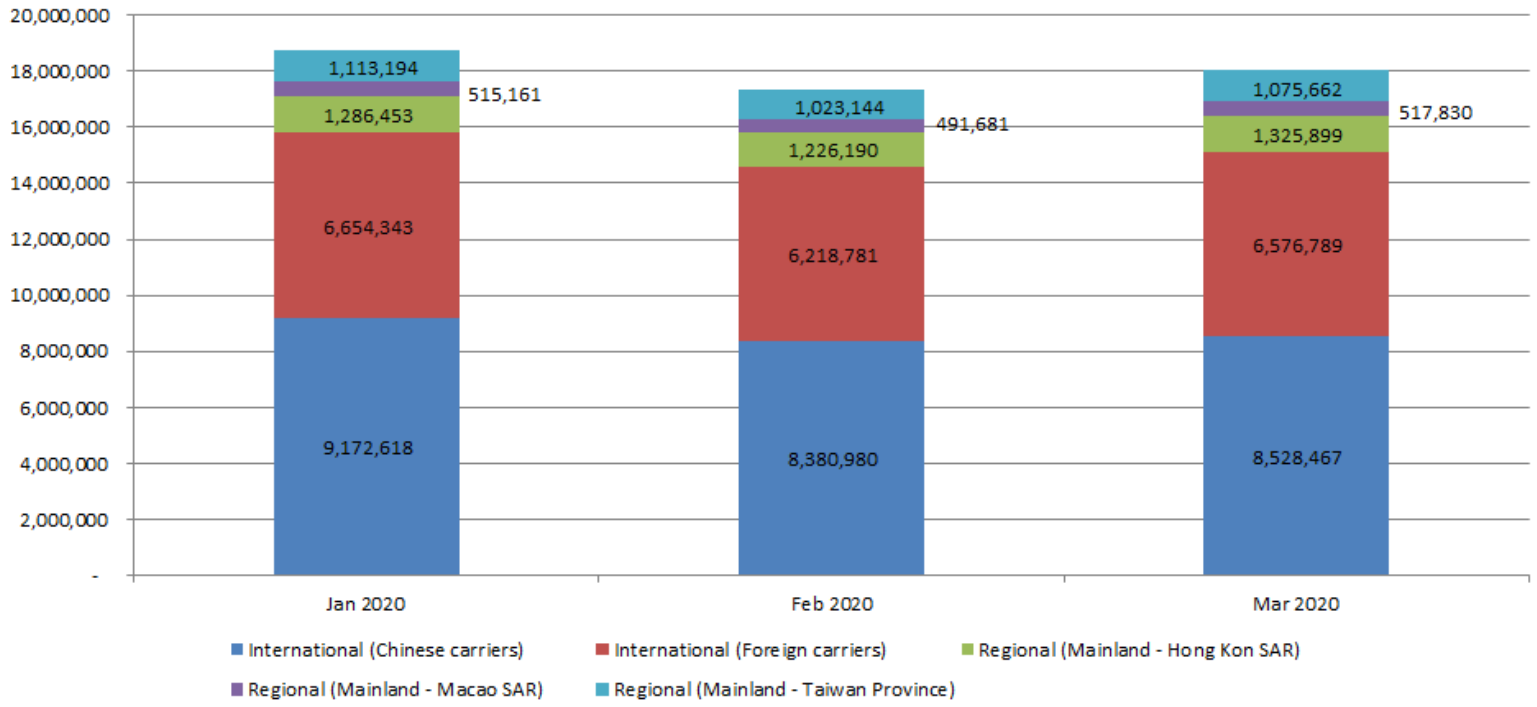


Capacity share 2019

- 45%: International by Chinese carriers
- 37%: International by foreign carriers
- 9% Regional (mainland China - Hong Kong SAR)
- 3% Regional (mainland China - Macao SAR)
- 7% Regional (mainland China - Taiwan Province)

Source: OAG Scheduled data

Number of seats offered by airlines (1Q 2020 originally-planned)



Capacity share 1Q 2020

- 48%: International by Chinese carriers
- 36%: International by foreign carriers
- 7% Mainland China - Hong Kong SAR
- 3% Mainland China - Macao SAR
- 6% Mainland China - Taiwan Province

Source: OAG Scheduled data

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Over 130 airlines reduced international services or cancelled all operations from/to mainland China

International (133)	Cambodia Airways Co. Ltd	Iberia*	MIAT - Mongolian Airlines*	Scoot*	Ural Airlines	Juneyao Airlines
Air Algerie*	Cambodia Angkor Air*	IndiGo*	Myanmar Airways Intl*	Shandong Airlines	Urumqi Airlines*	Mandarin Airlines
Air Astana*	Cebu Pacific Air*	IrAero*	Myanmar National Airlines*	Shanghai Airlines	US-Bangla Airlines	Shandong Airlines
Air Busan	Chengdu Airlines	Iraqi Airways*	Neos Air*	Shenzhen Airlines	Uzbekistan Airways*	Shanghai Airlines
Air Canada*	China Eastern Airlines	Japan Airlines	Nok Air	Siberia Airlines*	Vietnam Airlines*	Shenzhen Airlines
Air China	China Express Airlines	JC Cambodia Intl Airlines	NokScoot Airlines Co Ltd*	Sichuan Airlines	Virgin Atlantic Airways*	Sichuan Airlines
Air Company SCAT*	China Southern Airlines	Jeju Airlines	NordStar*	SilkAir	Xiamen Airlines Company	Tigerair Taiwan Co. Ltd
Air France*	China United Airlines	Jetstar Asia*	Okay Airways	Singapore Airlines	Yakutia*	Uni Airways
Air India*	China West Air*	Jetstar Japan*	Oman Air*	Sky Angkor Airlines	Zhejiang Loong Airlines	Xiamen Airlines Company
Air Koryo*	Chongqing Airlines*	Jetstar Pacific Airlines*	Pakistan Intl Airlines*	Spring Airlines	**Regional (25)**	Zhejiang Loong Airlines*
Air Madagascar*	Citilink Indonesia	Jin Air*	PAL Express*	Spring Airlines Japan	Air China	
Air Mauritius*	Delta Air Lines*	Juneyao Airlines	Peach Aviation Limited*	Srilankan Airlines	Air Macau	
Air New Zealand*	Donghai Airlines*	Kenya Airways*	Pegas Fly*	SWISS*	Cathay Dragon	
Air Seoul, Inc*	Eastar Jet	KLM-Royal Dutch Airlines*	Philippine Airlines*	Thai Air Asia X	Cathay Pacific Airways	
AirAsia	Egyptair*^	Korean Air	Philippines AirAsia Inc.*	Thai AirAsia	China Airlines	
Airasia X	El Al Israel Airlines*	Kunming Airlines	Qantas Airways*	Thai Airways International	China Eastern Airlines	
All Nippon Airways	Emirates	Lanmei Airlines	Qatar Airways*	Thai Lion Air	China Southern Airlines	
American Airlines*	Ethiopian Airlines	Lao Airlines	Qingdao Airline Co, Ltd	Thai Smile Airways*	Chongqing Airlines	
Asiana Airlines	Etihad Airways	Lion Air	Royal Air Maroc*	TianJin Airlines	Donghai Airlines	
Austrian Airlines*	Finnair*	LOT - Polish Airlines*	Royal Brunei Airlines*	Tibet Airlines*	EVA Airways	
AZUR air*	Garuda Indonesia*	Lucky Air Co. Ltd.	Royal Flight Airlines*	Turkish Airlines*^	Far Eastern Air Transport*	
Bangkok Airways*	Guangxi Beibu Gulf Airlines	Lufthansa German Airlines*	Ruili Airlines	Turkmenistan Airlines*	Hainan Airlines	
Batik Air	Hainan Airlines	Mahan Air*	RwandAir*	T'way Air*	Hebei Airlines*	
Beijing Capital Airlines	Hebei Airlines*	Malaysia Airlines	SAS Scandinavian Airlines*	Ukraine Interl Airlines*	HK Express	
British Airways*	Himalaya Airlines*	Malindo Airways	Saudi Arabian Airlines*	United Airlines*	Hong Kong Airlines	

Announced since late January 2020; Duration varies

***: Airlines with all service Cancelled**
***^: Airlines with all service cancelled but gradual resumption**

Source: Routes Online, OAG and airline websites (as of 24 Feb 2020)

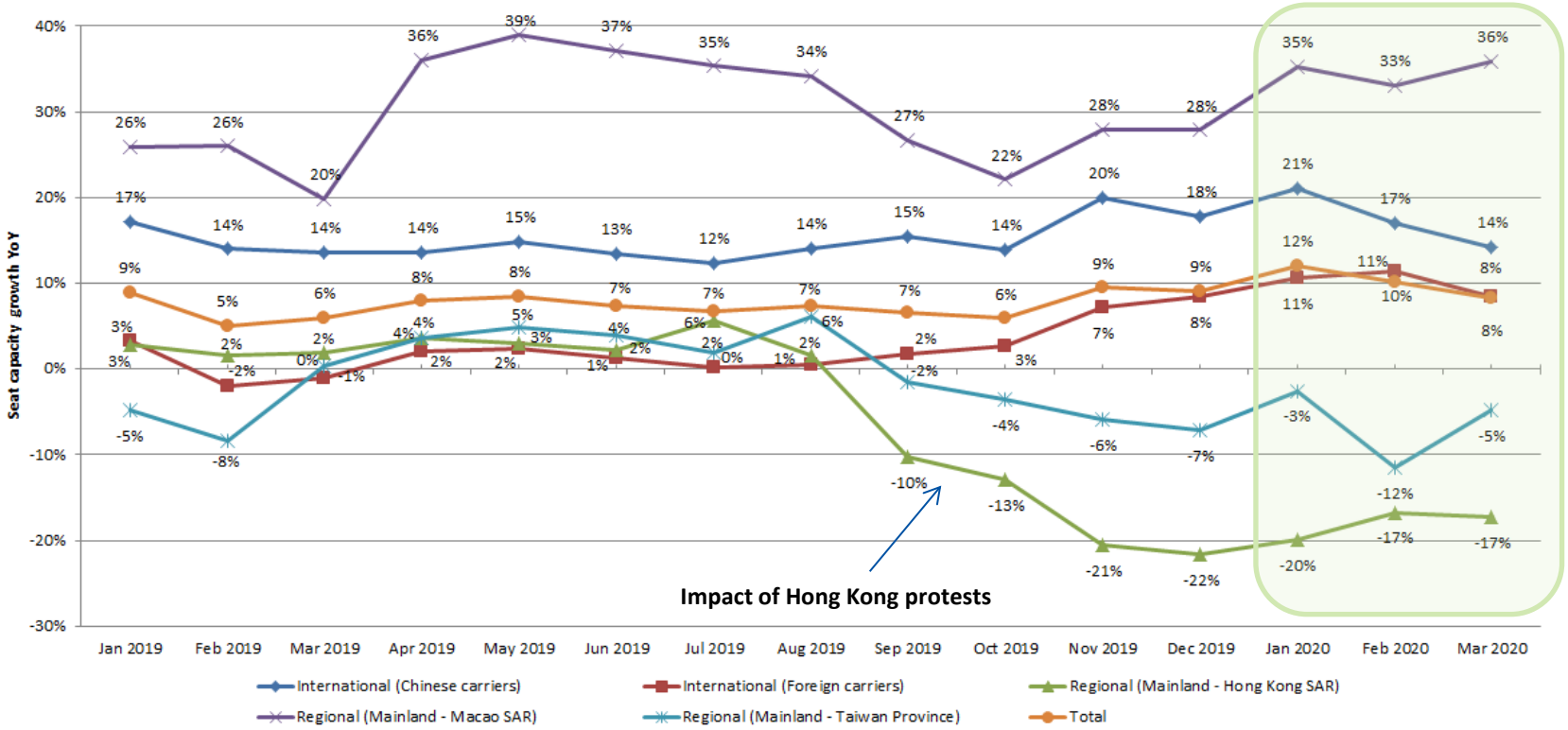
Scenario analysis of COVID-19 outbreak impact for 1Q 2020

- Baseline (hypothetical situation without COVID-19 outbreak)
  - Seat capacity: used "originally-planned" winter schedule
  - Load factor: used 2018 actual results of airlines
- Scenario 1
  - Seat capacity in January and February: estimated by airlines' schedule changes
  - Seat capacity in March: applied the same reduction rate as February
  - Load factor: used 2018 actual results of airlines except Hong Kong SAR of China
- Scenario 2
  - Seat capacity in January and February: estimated by airlines' schedule changes;
  - Seat capacity in March: reduced by further 10% from February;
  - Load factor: decreased by 12 - 22% in February and by 7 - 17% in March

Scenario analysis: Assumptions

Assumptions		Baseline		Scenario 1		Scenario 2	
		Seat capacity reduction from originally-planned	Passenger load factor	Seat capacity reduction from originally-planned	Passenger load factor	Seat capacity reduction from originally-planned	Passenger load factor
January 2020	International from/to mainland China (Chinese carriers)	0%	78%	-1%	78%	-1%	78%
	International from/to mainland China (Foreign carriers)	0%	80%	0%	80%	0%	80%
	Regional between mainland China and Hong Kong SAR of China	0%	80%	0%	70%	0%	70%
	Regional between mainland China and Macao SAR of China	0%	80%	-1%	80%	-1%	80%
	Regional between mainland China and Taiwan, Province of China	0%	80%	-1%	80%	-1%	80%
February 2020	International from/to mainland China (Chinese carriers)	0%	78%	-57%	78%	-57%	58%
	International from/to mainland China (Foreign carriers)	0%	80%	-64%	80%	-64%	65%
	Regional between mainland China and Hong Kong SAR of China	0%	80%	-65%	70%	-65%	58%
	Regional between mainland China and Macao SAR of China	0%	80%	-67%	80%	-67%	58%
	Regional between mainland China and Taiwan, Province of China	0%	80%	-60%	80%	-60%	58%
March 2020	International from/to mainland China (Chinese carriers)	0%	78%	-57%	78%	-67%	63%
	International from/to mainland China (Foreign carriers)	0%	80%	-64%	80%	-74%	70%
	Regional between mainland China and Hong Kong SAR of China	0%	80%	-65%	70%	-75%	63%
	Regional between mainland China and Macao SAR of China	0%	80%	-67%	80%	-77%	63%
	Regional between mainland China and Taiwan, Province of China	0%	80%	-60%	80%	-70%	63%

Baseline: 10% seat capacity increase compared to 1Q 2019

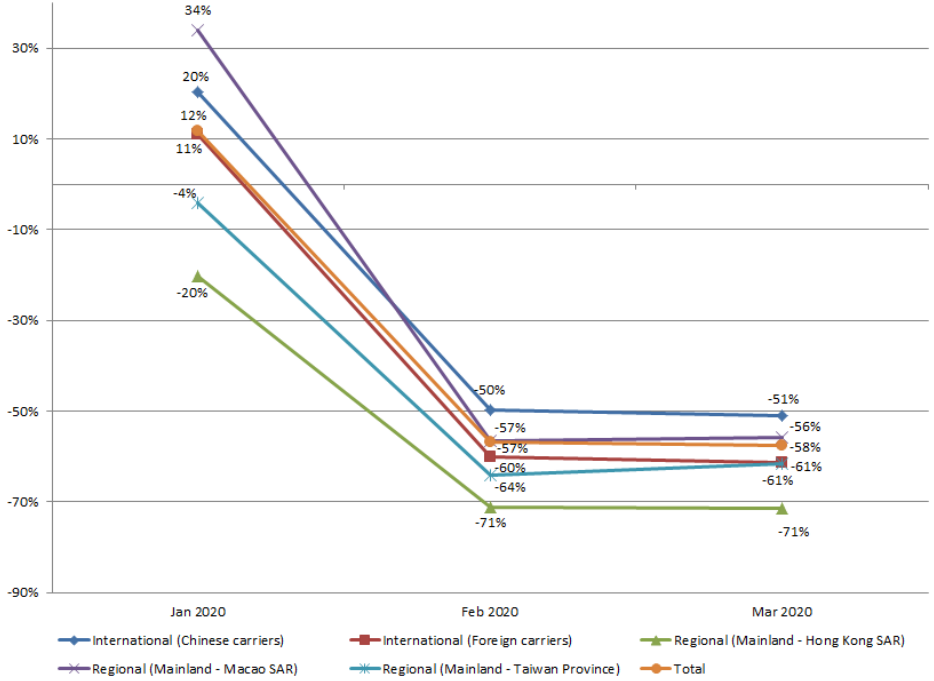


A total of YoY 10% seat capacity increase originally - planned for 1Q 2020 despite the reduction of capacity between mainland China and Hong Kong SAR and Taiwan Province

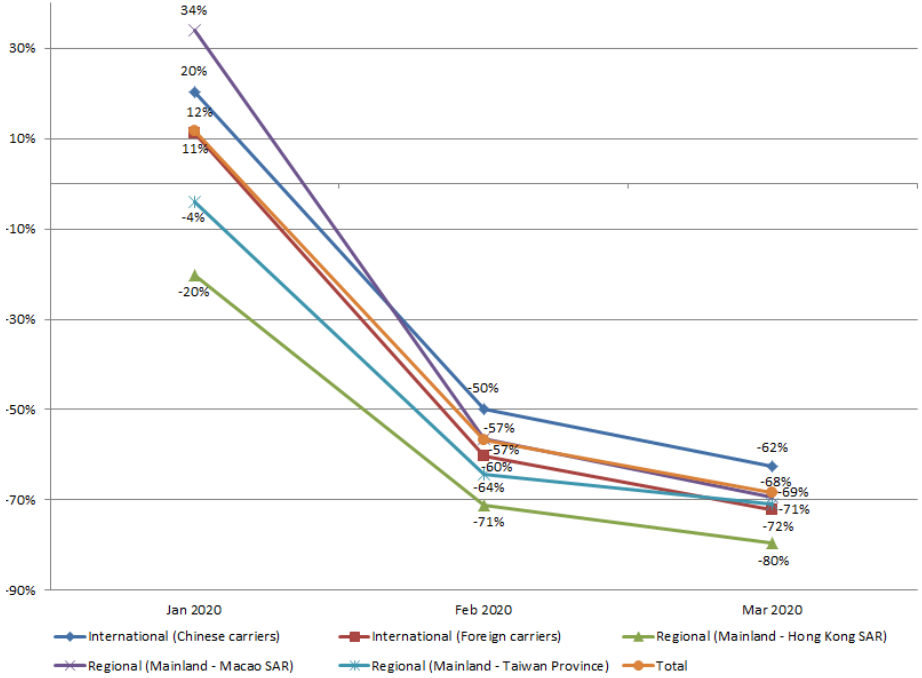
Source: OAG scheduled data

Scenarios 1 & 2: 40 to 43% seat capacity reduction from Baseline

Scenario 1: for 1Q 2020 a total of 34% reduction compared to 1Q 2019 and 40% reduction from Baseline

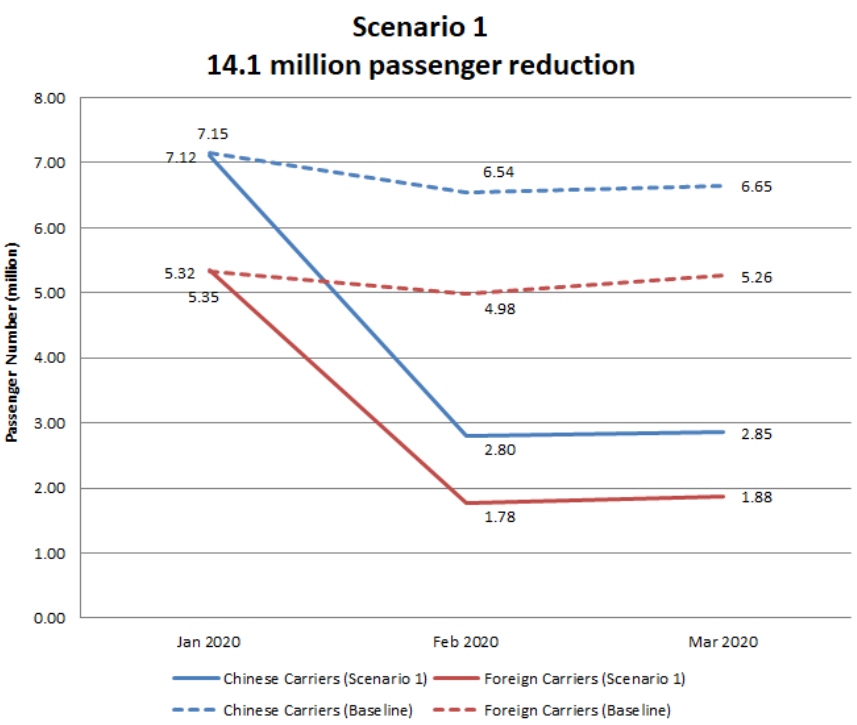


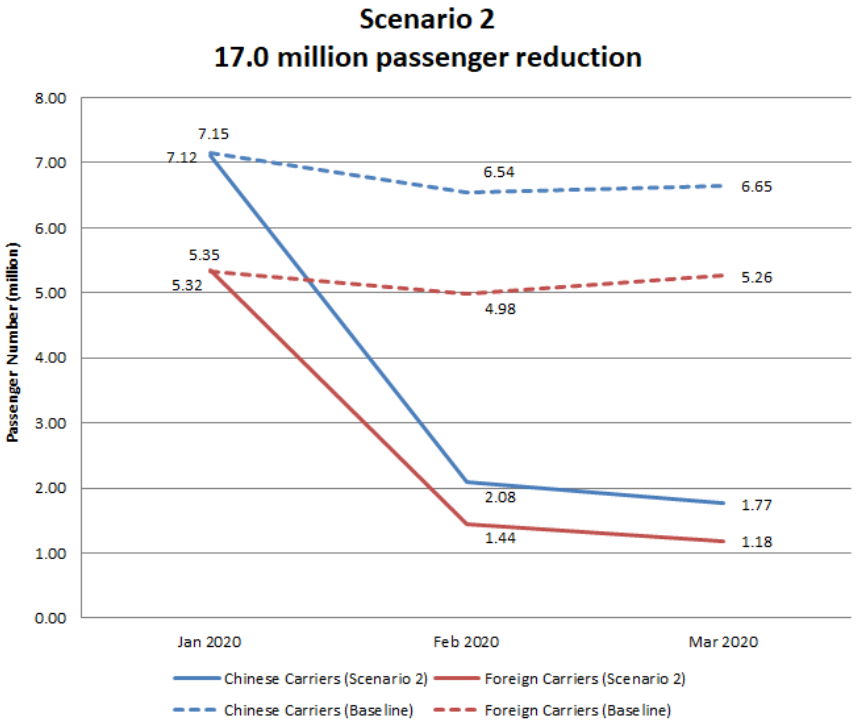
Scenario 2: for 1Q 2020 a total of 37% reduction compared to 1Q 2019 and 43% reduction from Baseline



Source: ICAO estimates based on OAG scheduled data

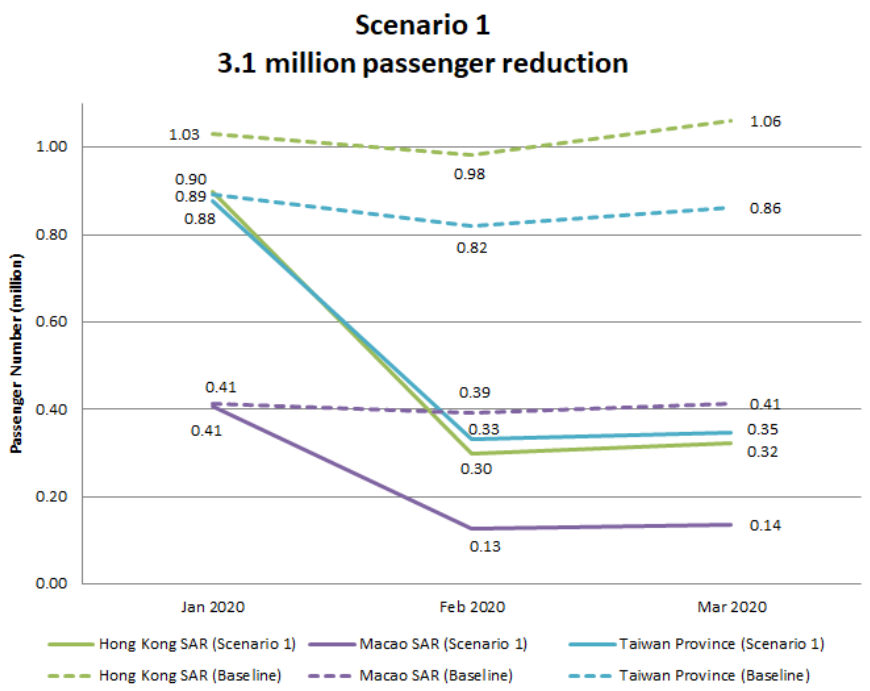
14.1 to 17.0 million "international" passenger reduction in 1Q 2020 compared to Baseline

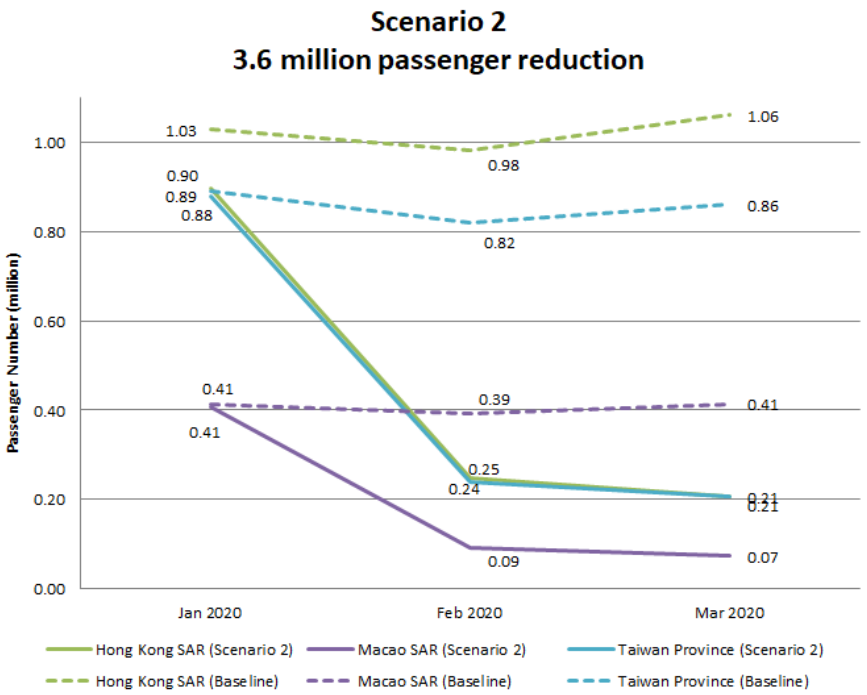




Source: ICAO estimates

3.1 to 3.6 million "regional" passenger reduction in 1Q 2020 compared to Baseline

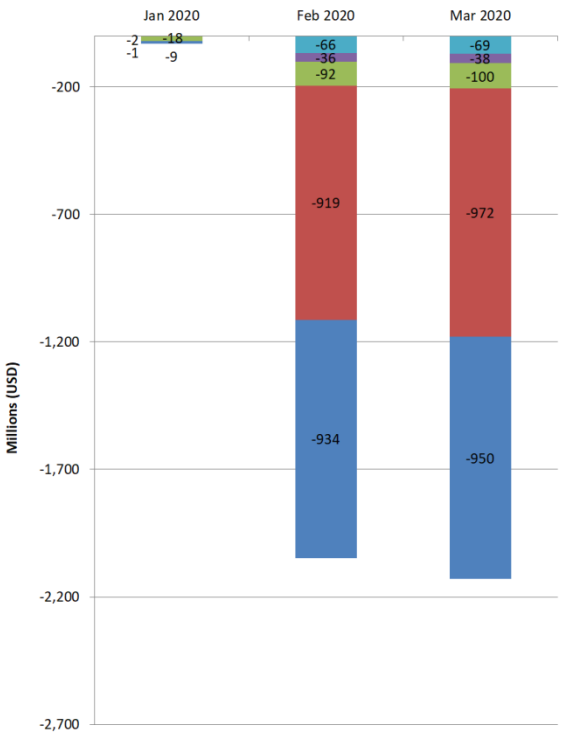




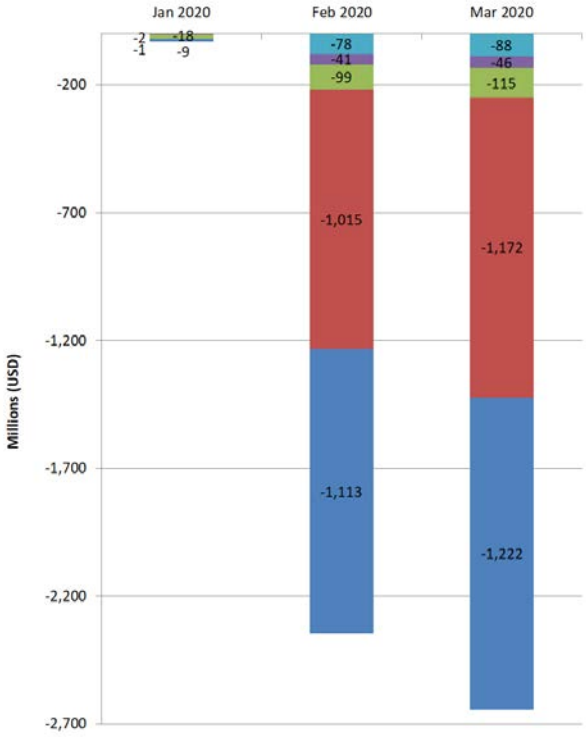
Source: ICAO estimates

Approx. USD 4.2 to 5.0 billion potential loss of airline revenues for 1Q 2020 compared to Baseline

Scenario 1: USD 4.2 billion reduction



Scenario 2: USD 5.0 billion reduction



- International (Chinese carriers)
- International (Foreign carriers)
- Regional (Mainland - Hong Kong SAR)
- Regional (Mainland - Macao SAR)
- Regional (Mainland - Taiwan Province)

- International (Chinese carriers): calculated with an average fare of USD 250 per passenger based on traffic/financial reports of CA, CZ and MU;
- International (Foreign carriers): assumed 15% higher average fare than Chinese carriers;
- Regional: calculated with an average fare of USD 135 per passenger based on traffic/financial reports of CA, CZ and MU

Source: ICAO estimates

Summary of estimated impact in 1Q 2020

The preliminary estimates indicate the impact in terms of scheduled international passenger traffic from/to mainland China (including between mainland China and Hong Kong SAR of China, Macao SAR of China and Taiwan, Province of China) during 1Q 2020 compared to originally-planned:

- Overall reduction ranging from **40% to 43% of seats offered by airlines**
- Overall reduction of **17.2 to 20.6 million passengers**
- Approx. **USD 4.2 to 5.0 billion potential loss** of gross operating revenues of airlines

	Estimated Impact on									
	Number of seats offered by airlines (000)				Number of Passengers (000)				Gross operating revenues of airlines (USD, million)	
Scope of analysis	Scenario 1		Scenario 2		Scenario 1		Scenario 2		Scenario 1	Scenario 2
International from/to mainland China (Chinese carriers)	-9,700	*-37%*	-10,600	*-41%*	-7,600	*-37%*	-9,400	*-46%*	-$1,890	-$2,340
International from/to mainland China (Foreign carriers)	-8,200	*-42%*	-8,900	*-46%*	-6,600	*-42%*	-7,600	*-49%*	-$1,890	-$2,180
Regional between mainland China and Hong Kong SAR of China	-1,700	*-44%*	-1,800	*-47%*	-1,600	*-51%*	-1,700	*-56%*	-$210	-$230
Regional between mainland China and Macao SAR of China	-700	*-45%*	-700	*-48%*	-500	*-45%*	-600	*-53%*	-$70	-$90
Regional between mainland China and Taiwan, Province of China	-1,300	*-39%*	-1,400	*-43%*	-1,000	*-39%*	-1,200	*-48%*	-$140	-$170
Total	**-21,500**	***-40%***	**-23,300**	***-43%***	**-17,200**	***-40%***	**-20,600**	***-48%***	**-$4,200**	**-$5,010**

Source: ICAO estimates

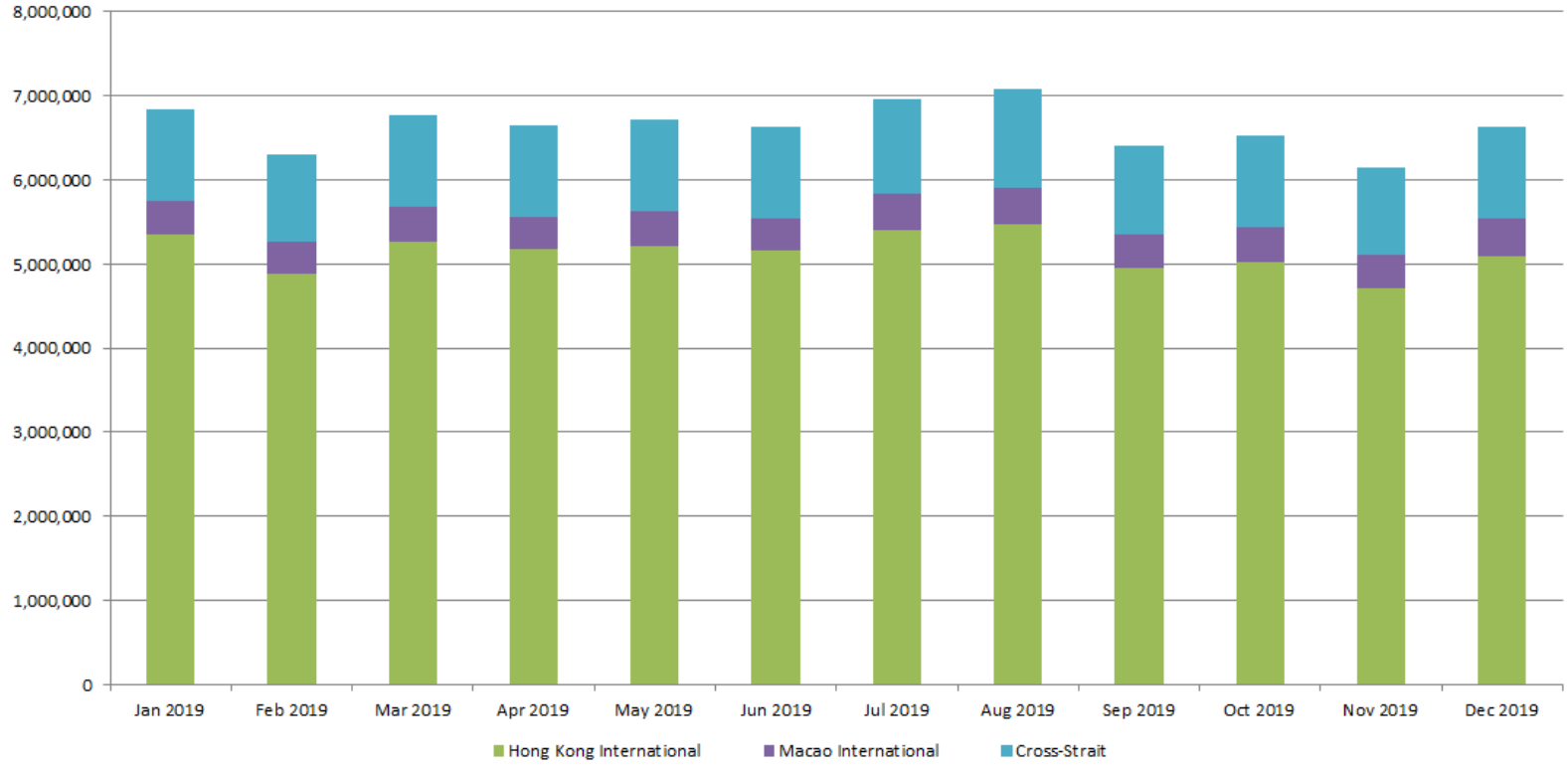
Scenario Analysis:
Hong Kong SAR of China and Macao SAR of China

This is a preliminary analysis. Figures and estimates herein will be updated with the situation evolving and more information available.

Scope of analysis: Hong Kong SAR and Macao SAR

- **"Hong Kong International"** refers to scheduled international passenger services from/to Hong Kong Special Administrative Region (SAR) of China excluding:
  - scheduled passenger services between Hong Kong SAR of China and mainland China, Macao SAR of China and Taiwan, Province of China
- **"Macao International"** refers to scheduled international passenger services from/to Macao SAR of China excluding:
  - scheduled passenger services between Macao SAR of China and mainland China, Hong Kong SAR of China and Taiwan, Province of China
- **"Cross-Strait"** refers to scheduled passenger services among Hong Kong SAR of China, Macao SAR of China and Taiwan, Province of China excluding:
  - "**Regional"** already included in the mainland China analysis

Number of seats offered by airlines (monthly, 2019)

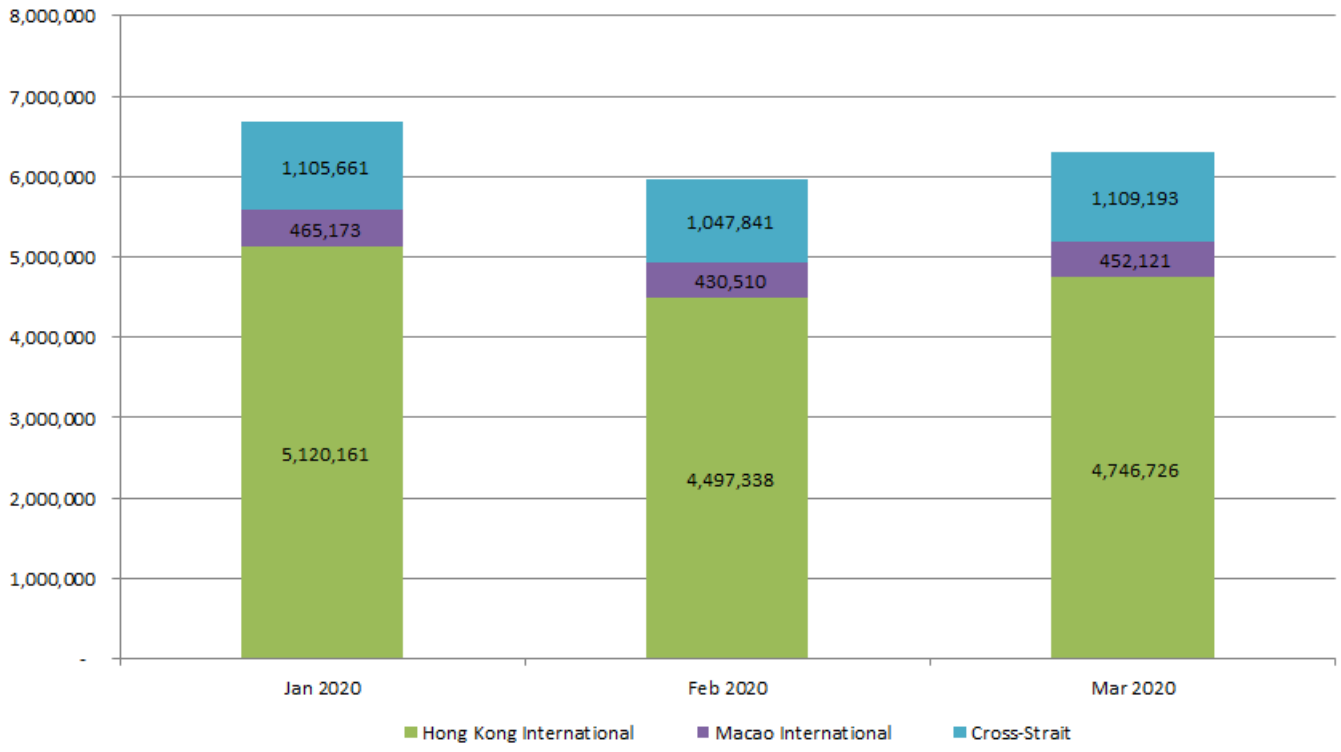


Capacity share 2019

- 78%: Hong Kong International
- 6%: Macao International
- 16%: Cross-Strait

Source: OAG Scheduled data

Number of seats offered by airlines (1Q 2020 originally-planned)



Capacity share 1Q 2020

- 76%: Hong Kong International
- 7%: Macao International
- 17%: Cross-Strait

Airlines originally planned to reduce seat capacity slightly due to the impact of Hong Kong protests and the continued trade tension.

Source: OAG Scheduled data

Some 70 airlines cancelled all services or reduced services from/to Hong Kong SAR and Macao SAR

Hong Kong International (59)	Egyptair	Korean Air	Thai AirAsia	Philippine Airlines*
Aeroflot Russian Airlines	El Al Israel Airlines*	Lanmei Airlines*	Thai Airways International	Philippines AirAsia Inc.*
Air Busan*	Emirates	Lufthansa German Airlines	United Airlines*	Scoot
Air Canada	Ethiopian Airlines	Malaysia Airlines	Vietjet	Thai AirAsia
Air France	Etihad Airways*	MIAT - Mongolian Airlines*	Vietnam Airlines	T'way Air*
Air India*	EZNIS AIRWAYS LLC*	Myanmar National Airlines	Virgin Australia Intl*	Vietnam Airlines*
Air Mauritius*	Fiji Airways	Peach Aviation Limited	**Macao International (17)**	**Cross-Strait (9)**
Air Niugini	Finnair	Philippine Airlines*	Air Busan*	Air Macau
Air Seoul, Inc	Garuda Indonesia	Philippines AirAsia Inc.*	Air Macau	Cathay Dragon
AirAsia	HK Express	Qantas Airways	AirAsia	Cathay Pacific Airways
All Nippon Airways	Hong Kong Airlines	Qatar Airways	Bamboo Airways*	China Airlines
American Airlines*	IndiGo*	Royal Brunei Airlines	Cambodia Airways Co. Ltd*	EVA Airways
Asiana Airlines	Japan Airlines	Royal Jordanian	Cambodia Angkor Air*	HK Express
British Airways	Jeju Airlines	Scoot	Cebu Pacific Air*	Hong Kong Airlines
Cathay Dragon	Jetstar Asia*	Siberia Airlines*	Eastar Jet*	Mandarin Airlines
Cathay Pacific Airways	Jetstar Japan*	Singapore Airlines	Jeju Airlines	Tigerair Taiwan Co. Ltd*
Cebu Pacific Air*	Jetstar Pacific Airlines*	South African Airways*	Jin Air*	
Eastar Jet	KLM-Royal Dutch Airlines	SWISS	Lanmei Airlines*	

Announced since late January 2020; Duration varies

***: Airlines with all service cancelled**

Source: Routes Online, OAG and airline websites (as of 24 Feb 2021)

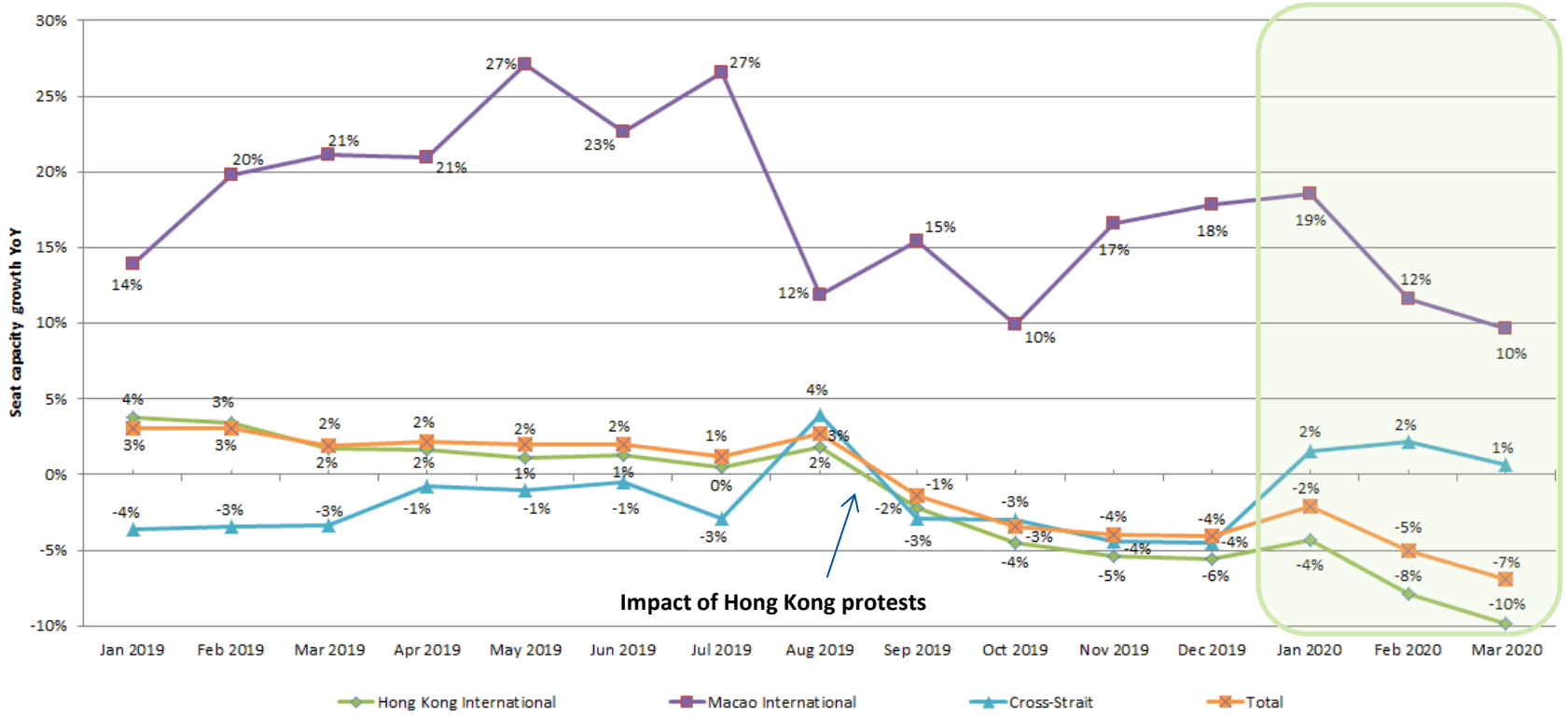
Scenario analysis of COVID-19 outbreak impact for 1Q 2020

- Baseline (hypothetical situation without COVID-19 outbreak)
  - Seat capacity: used "originally-planned" winter schedule
  - Load factor: used the same percentage as "International from/to mainland China (Foreign carriers)" and "Regional"
- Scenario 1
  - Seat capacity in January and February: estimated by airlines' schedule changes
  - Seat capacity in March: applied the same reduction rate as February
  - Load factor: used the same percentage as Baseline
- Scenario 2
  - Seat capacity in January and February: estimated by airlines' schedule changes;
  - Seat capacity in March: reduced by further 10% from February;
  - Load factor: decreased by 22% in February and by 17% in March

Scenario analysis: Assumptions

Assumptions		Baseline		Scenario 1		Scenario 2	
		Seat capacity reduction from originally-planned	Passenger load factor	Seat capacity reduction from originally-planned	Passenger load factor	Seat capacity reduction from originally-planned	Passenger load factor
January 2020	Hong Kong International	0%	80%	0%	80%	0%	80%
	Macao International	0%	80%	0%	80%	0%	80%
	Cross-Strait	0%	80%	1%	80%	1%	80%
February 2020	Hong Kong International	0%	80%	-25%	80%	-25%	58%
	Macao International	0%	80%	-67%	80%	-67%	58%
	Cross-Strait	0%	80%	-52%	80%	-52%	58%
March 2020	Hong Kong International	0%	80%	-25%	80%	-35%	63%
	Macao International	0%	80%	-67%	80%	-77%	63%
	Cross-Strait	0%	80%	-52%	80%	-62%	63%

Baseline: 5% seat capacity reduction compared to 1Q 2019

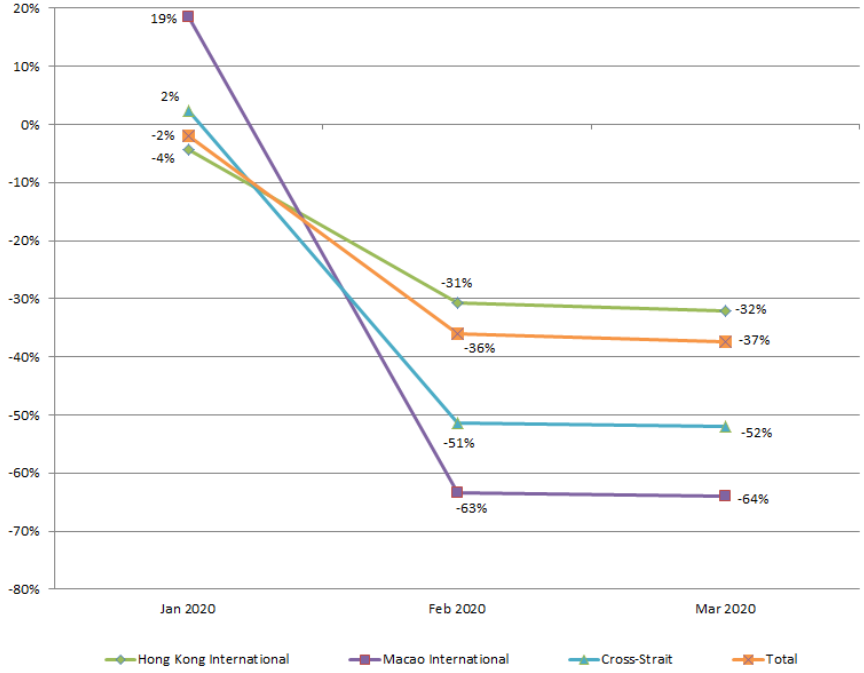


A total of YoY 5% seat capacity reduction originally - planned for 1Q 2020 due to the expectation of continued weak demand for Hong Kong SAR and Taiwan Province

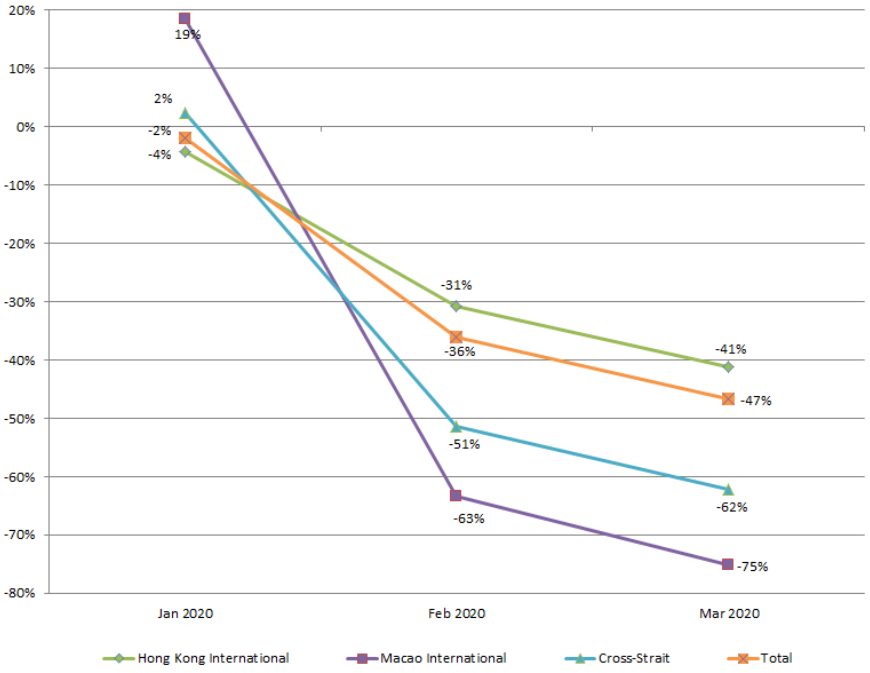
Source: OAG scheduled data

Scenarios 1 & 2: 21 to 24% seat capacity reduction from Baseline

Scenario 1: for 1Q 2020 a total of 25% reduction compared to 1Q 2019 and 21% reduction from Baseline

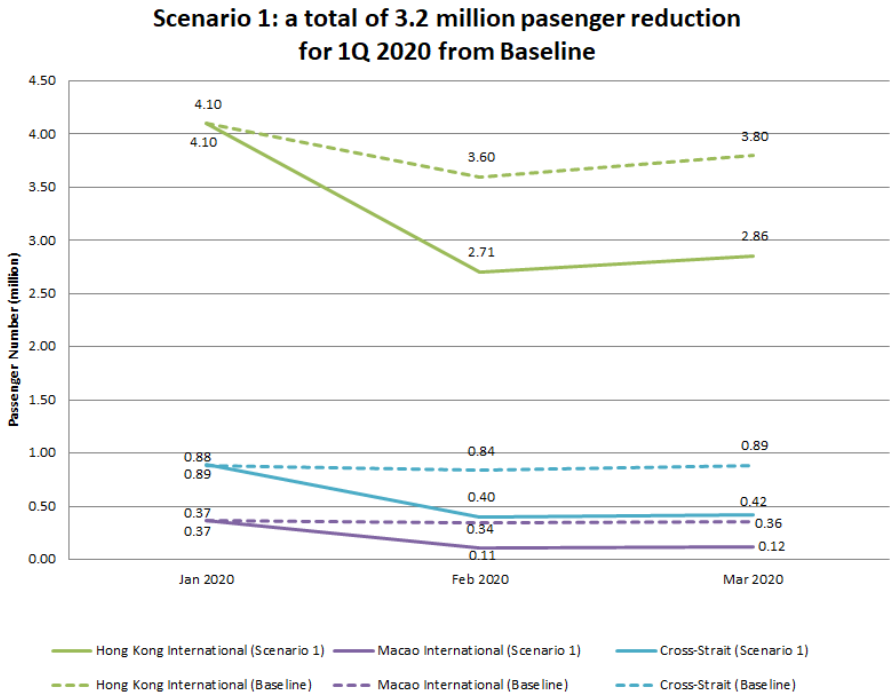


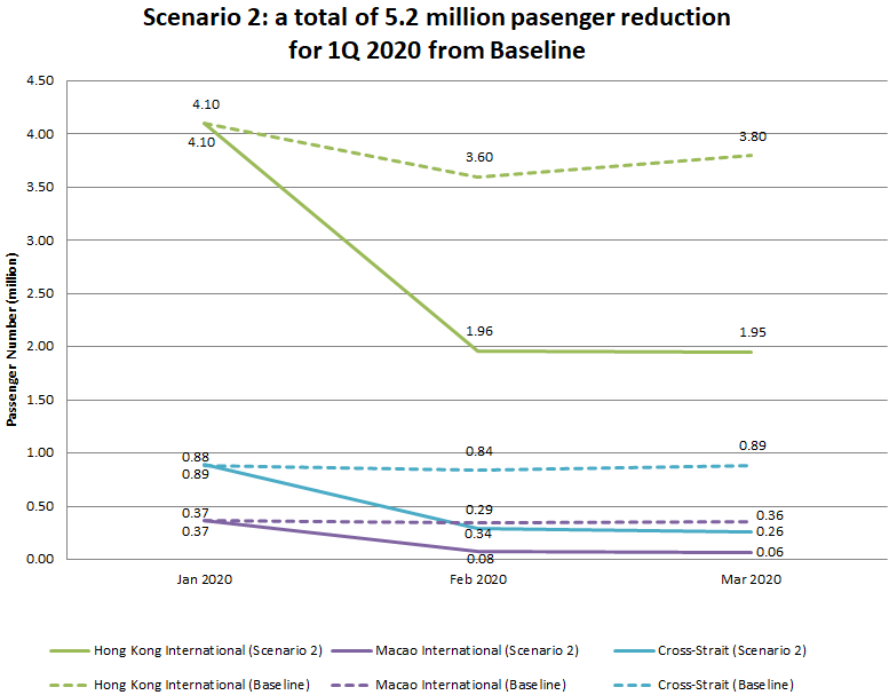
Scenario 2: for 1Q 2020 a total of 28% reduction compared to 1Q 2019 and 24% reduction from Baseline



Source: ICAO estimates based on OAG scheduled data

3.2 to 5.2 million passenger reduction in 1Q 2020 compared to Baseline

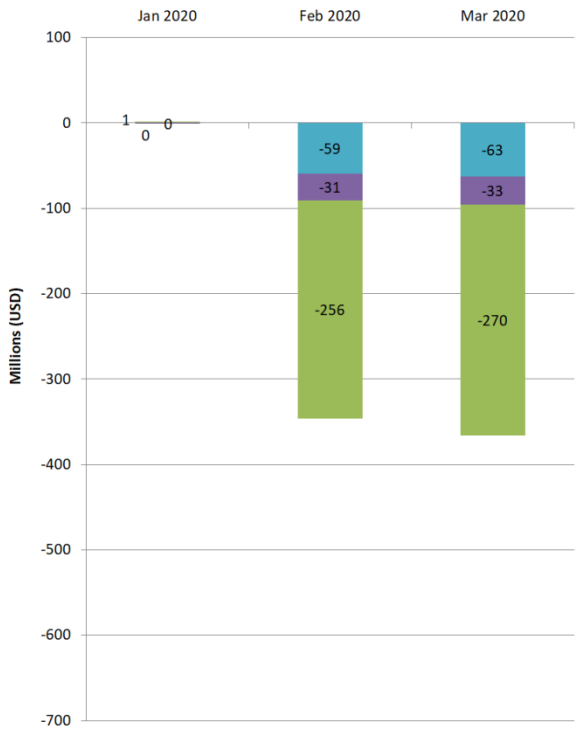




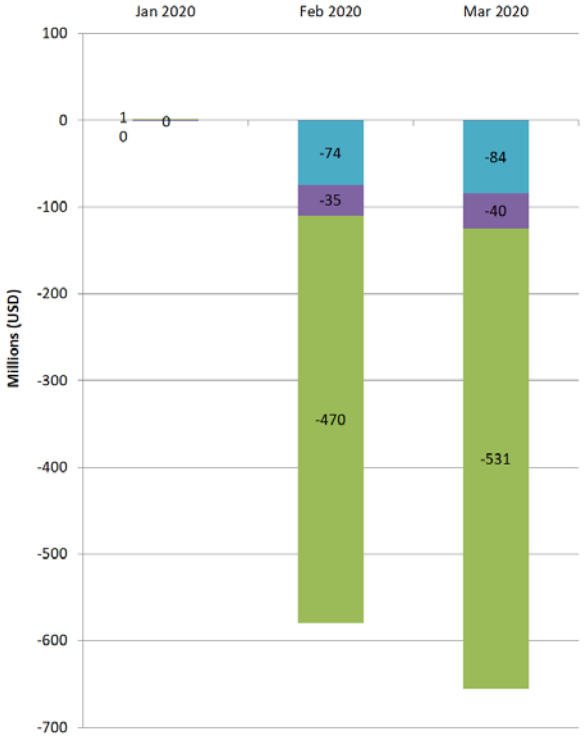
Source: ICAO estimates

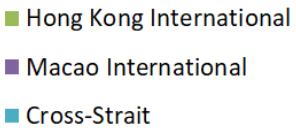
Approx. USD 0.7 to 1.2 billion potential loss of airline revenues for 1Q 2020 compared to Baseline

Scenario 1: USD 0.7 billion reduction



Scenario 2: USD 1.2 billion reduction





Hong Kong International: calculated with an average fare of USD 287.5 per passenger (i.e. the same as “International (Foreign carriers)”; Macao International and Cross-Strait: calculated with an average fare of USD 135 per passenger (i.e. the same as “Regional”)

Source: ICAO estimates

Summary of estimated impact in 1Q 2020

The preliminary estimates indicate the impact in terms of scheduled international passenger traffic from/to Hong Kong SAR of China and Macao SAR of China, as well as scheduled passenger traffic among Hong Kong SAR of China, Macao SAR of China and Taiwan, Province of China, during 1Q 2020 compared to originally-planned:

- Overall reduction ranging from **21% to 24% of seats offered by airlines**
- Overall reduction of **3.2 to 5.2 million passengers**
- Approx. **USD 0.7 to 1.2 billion potential loss** of gross operating revenues of airlines

	Estimated Impact on									
	Number of seats offered by airlines (000)				Number of Passengers (000)				Gross operating revenues of airlines (USD, million)	
Scope of analysis	Scenario 1		Scenario 2		Scenario 1		Scenario 2		Scenario 1	Scenario 2
Hong Kong International	-2,300	*-16%*	-2,800	*-19%*	-1,800	*-16%*	-3,500	*-30%*	-$530	-$1,000
Macao International	-600	*-44%*	-600	*-47%*	-500	*-44%*	-600	*-52%*	-$60	-$80
Cross-Strait	-1,100	*-34%*	-1,200	*-38%*	-900	*-34%*	-1,200	*-45%*	-$120	-$160
Total	**-4,000**	***-21%***	**-4,600**	***-24%***	**-3,200**	***-21%***	**-5,200**	***-34%***	**-$710**	**-$1,230**

Source: ICAO estimates

Scenario Analysis:
Summary and Additional Initial Estimates

This is a preliminary analysis. Figures and estimates herein will be updated with the situation evolving and more information available.

Summary of observations

- The direct impact of COVID-19 outbreak is expected to be greater than that caused by SARS in 2003 due to higher scale of flight cancellations and bigger economic size/air travel market of China
- The preliminary estimates indicate the impact in terms of scheduled international passenger traffic from/to China (including Hong Kong SAR of China, Macao SAR of China and cross-strait services from/to Taiwan, Province of China) during 1Q 2020 compared to originally-planned:
  - Overall reduction ranging from **35% to 38% of seats offered by airlines**
  - Overall reduction of **20.4 to 25.8 million passengers**
  - Approx. **USD 4.9 to 6.3 billion potential loss** of gross operating revenues of airlines
- The above estimates exclude, inter alia, the impact of traffic reduction related to air cargo, Chinese domestic, as well as other international services

Source: ICAO estimates

Break-down of estimated impact in 1Q 2020

	Estimated Impact on									
	Number of seats offered by airlines (000)				Number of Passengers (000)				Gross operating revenues of airlines (USD, million)	
Scope of analysis	Scenario 1		Scenario 2		Scenario 1		Scenario 2		Scenario 1	Scenario 2
International from/to mainland China (Chinese carriers)	-9,700	*-37%*	-10,600	*-41%*	-7,600	*-37%*	-9,400	*-46%*	-$1,890	-$2,340
International from/to mainland China (Foreign carriers)	-8,200	*-42%*	-8,900	*-46%*	-6,600	*-42%*	-7,600	*-49%*	-$1,890	-$2,180
Regional between mainland China and Hong Kong SAR of China	-1,700	*-44%*	-1,800	*-47%*	-1,600	*-51%*	-1,700	*-56%*	-$210	-$230
Regional between mainland China and Macao SAR of China	-700	*-45%*	-700	*-48%*	-500	*-45%*	-600	*-53%*	-$70	-$90
Regional between mainland China and Taiwan, Province of China	-1,300	*-39%*	-1,400	*-43%*	-1,000	*-39%*	-1,200	*-48%*	-$140	-$170
Sub-total	**-21,500**	***-40%***	**-23,300**	***-43%***	**-17,200**	***-40%***	**-20,600**	***-48%***	**-$4,200**	**-$5,010**
Hong Kong International	-2,300	*-16%*	-2,800	*-19%*	-1,800	*-16%*	-3,500	*-30%*	-$530	-$1,000
Macao International	-600	*-44%*	-600	*-47%*	-500	*-44%*	-600	*-52%*	-$60	-$80
Cross-Strait	-1,100	*-34%*	-1,200	*-38%*	-900	*-34%*	-1,200	*-45%*	-$120	-$160
Sub-total	**-4,000**	***-21%***	**-4,600**	***-24%***	**-3,200**	***-21%***	**-5,200**	***-34%***	**-$710**	**-$1,230**
Grand total	**-25,500**	***-35%***	**-28,000**	***-38%***	**-20,400**	***-35%***	**-25,800**	***-44%***	**-$4,910**	**-$6,250**

Source: ICAO estimates

Preliminary estimates: Impact on domestic passenger services in 1Q 2020

The preliminary estimates indicate the impact in terms of scheduled domestic passenger traffic within mainland China during 1Q 2020 compared to originally-planned:

- Overall reduction of **40% of seats offered by airlines**
- Overall reduction of **66.6 to 76.3 million passengers**
- Approx. **USD 6.8 to 7.8 billion potential loss** of gross operating revenues of airlines

	Estimated Impact on									
	Number of seats offered by airlines (000)				Number of Passengers (000)				Gross operating revenues of airlines (USD, million)	
Scope of analysis	Scenario 1		Scenario 2		Scenario 1		Scenario 2		Scenario 1	Scenario 2
Domestic within mainland China	-76,100	*-40%*	-76,100	*-40%*	-66,600	*-42%*	-76,300	*-48%*	-$6,830	-$7,825
Assumption	Seat capacity is reduced by 3% in January 2020 and 60% in February and March 2020 from the originally-planned schedules (baseline)				Load factor is down from 83% (baseline) to 80% for 1Q 2020		Load factor is down from 83% (baseline) to 80% in January 2020, 58% in February 2020 and 63% in March 2020		Calculated with an average fare of USD 102.5 per passenger based on traffic/financial reports of CA, CZ and MU	

PRELIMINARY

Source: ICAO estimates

Potential loss of revenues from tourists to top 5 States for 1Q 2020

Top 5 States that Chinese traveller had the largest share		Baseline		Scenario 1		Scenario 2	
		Passenger number	Tourism revenue (in million USD)*	Passenger number	Tourism revenue (in million USD)*	Passenger number	Tourism revenue (in million USD)*
Australia		460,161	446.36	340,318	330.11	296,616	287.72
	Loss	-	-	-119,843	-116.25	-163,545	-158.64
France		240,523	233.31	137,867	133.73	120,670	117.05
	Loss	-	-	-102,656	-99.58	-119,853	-116.26
Japan		3,181,840	3,086.38	2,167,273	2102.25	1,855,034	1,799.38
	Loss	-	-	-1,014,567	-984.13	-1,326,806	-1287.00
Thailand		2,772,352	2,689.18	1,826,629	1771.83	1,589,458	1,541.77
	Loss	-	-	-945,723	-917.35	-1,182,894	-1147.41
United States		888,102	861.46	505,096	489.94	446,707	433.31
	Loss	-	-	-383,006	-371.52	-441,395	-428.15

- Data excludes Special Administrative Regions (SAR) of China (Hong Kong SAR and Macao SAR) and Taiwan, Province of China
- Calculated with average international tourism spending of China (USD 970) per tourist reported by UNWTO

Source: ICAO estimates

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THANK YOU

https://www.icao.int/Newsroom/Pages/Economic-impact-estimates-due-to-COVID-19-travel-bans.aspx