



ICAO

UNITING AVIATION

# Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis

Montréal, Canada

8 June 2020

**Air Transport Bureau**





- **Executive Summary: Economic Impact in Brief**
- **Scenario Building**
  - Analytical Consideration
  - Shapes of Economic Recession and Recovery
  - Indicative Scenarios and Paths Forward
- **Scenario Estimates**
  - Impact on Passenger Seat Capacity (Supply)
  - Impact on Passenger Numbers (Demand)
  - Impact on Gross Passenger Operating Revenues of Airlines
- **Appendix**
  - A. Overview of Early Impact
  - B. Scenario Assumptions in Detail
  - C. Summary of Key Impact Indicators
  - D. Estimated Results at Route Group Level
  - E. Airline Financial Analysis
  - F. Summary of Analysis by Other Organizations



## Executive Summary: Economic Impact in Brief

Previous two (2) scenarios and six (6) different paths were restructured with new two (2) scenarios and four (4) different paths for scheduled passenger traffic till December 2020.

Figures and estimates herein are **subject to substantial changes**, and will be updated with the situation evolving and more information available.



The latest estimates indicate that the possible COVID-19 impact on world scheduled passenger traffic for the full year 2020, compared to Baseline (business as usual, originally-planned), would be:

- Overall reduction ranging from **40% to 53% of seats offered by airlines**
- Overall reduction of **2,291 to 3,061 million passengers**
- Approx. **USD 302 to 400 billion potential loss** of gross operating revenues of airlines

The impacts depend on duration and magnitude of the outbreak and containment measures, the degree of consumer confidence for air travel, and economic conditions, etc.



## **International passenger traffic** for 2020, compared to Baseline

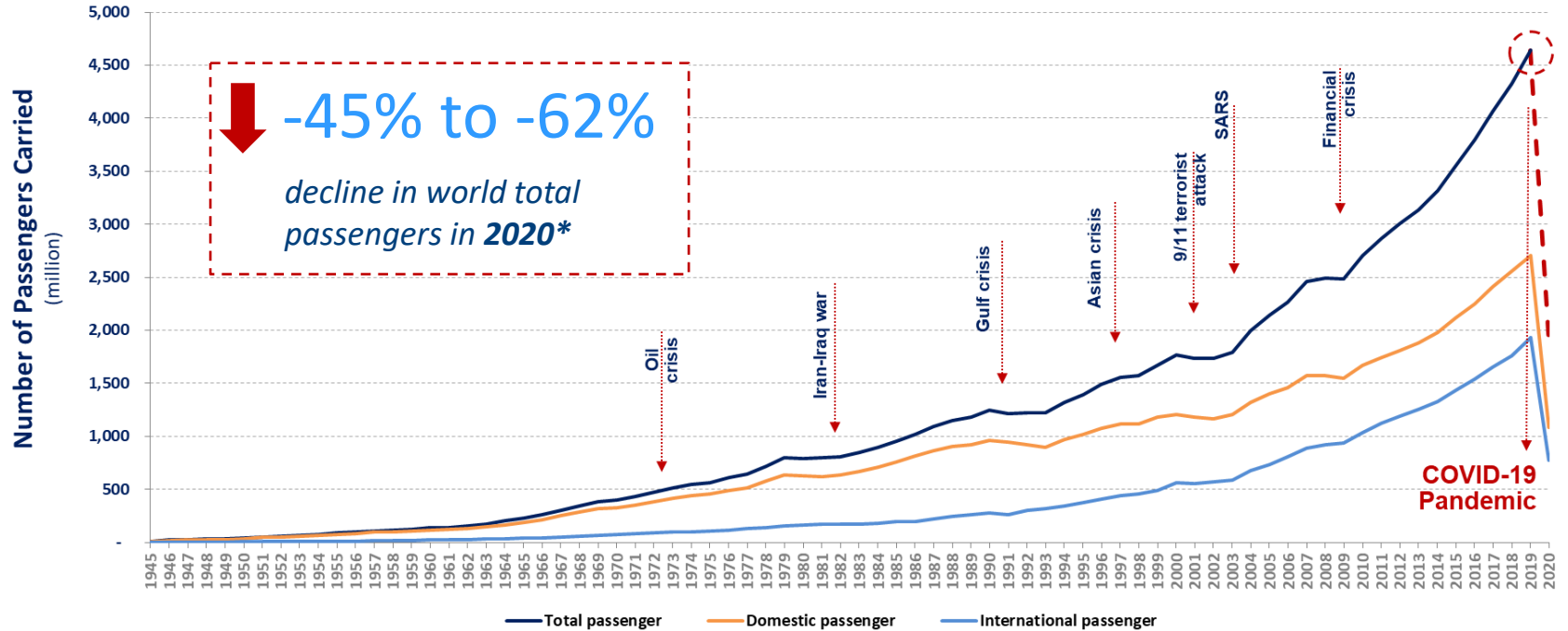
- Overall reduction ranging from **48% to 63% of seats offered by airlines**
- Overall reduction of **1,105 to 1,437 million passengers**
- Approx. **USD 195 to 254 billion potential loss** of gross operating revenues of airlines

## **Domestic passenger traffic** for 2020, compared to Baseline

- Overall reduction ranging from **33% to 45% of seats offered by airlines**
- Overall reduction of **1,186 to 1,623 million passengers**
- Approx. **USD 107 to 146 billion potential loss** of gross operating revenues of airlines

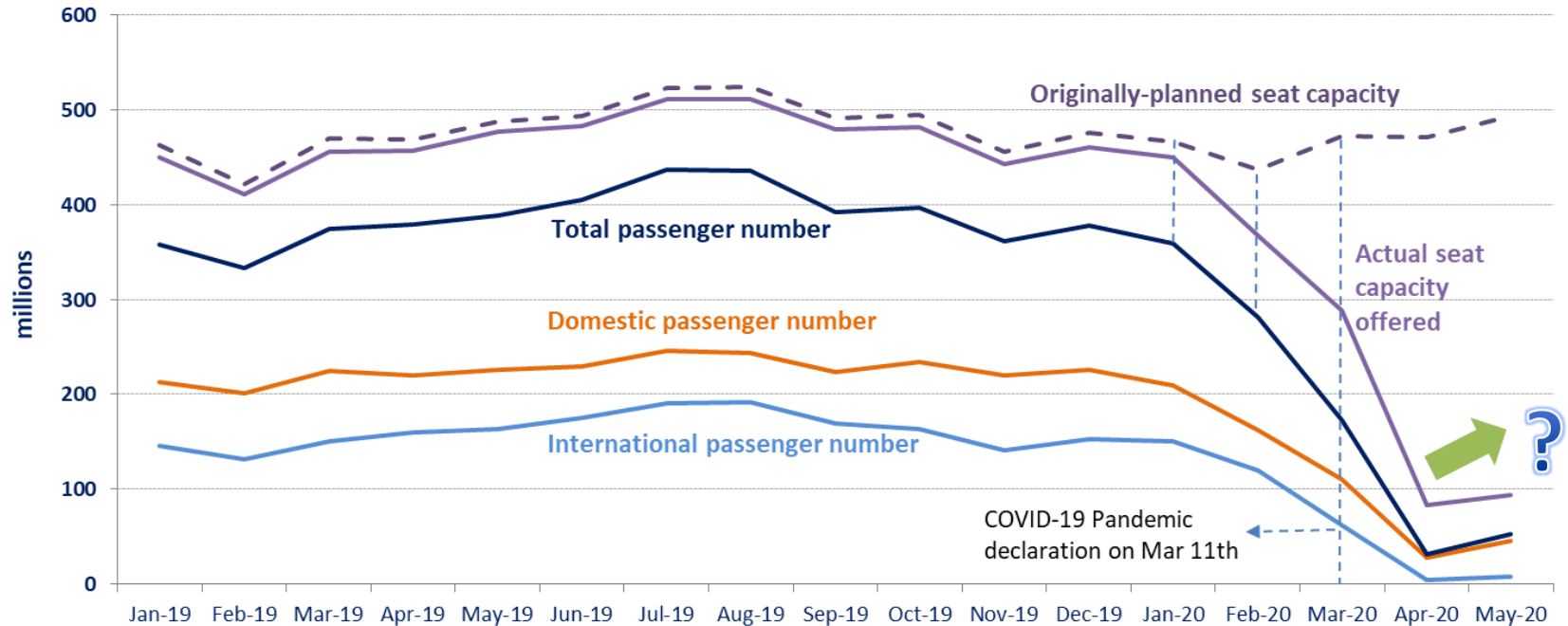
# World passenger traffic collapses with unprecedented decline in history

## World passenger traffic evolution 1945 – 2020\*



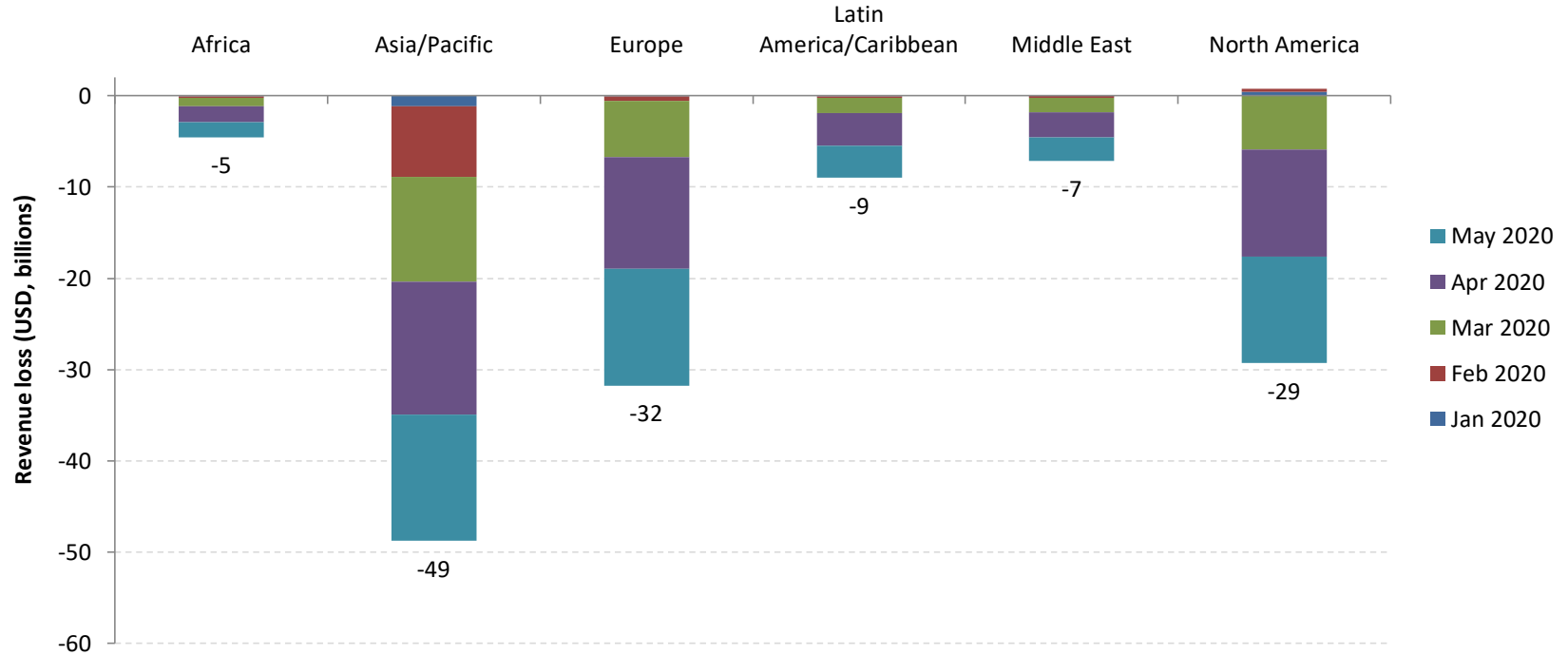


## Comparison of passenger numbers and capacity (A silver lining for bottoming out from June?)





# Approximately USD 130 billion passenger revenue loss from Jan to May 2020

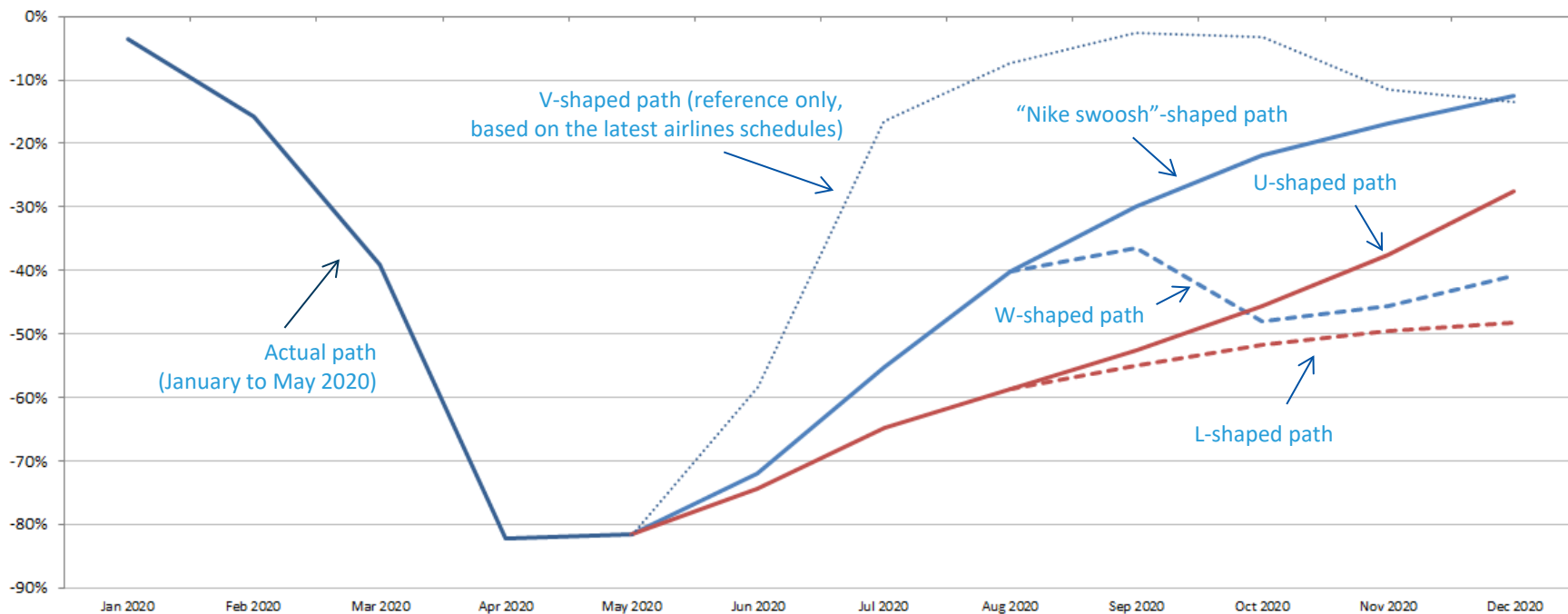


Note: Compared to Baseline (business as usual, originally-planned)



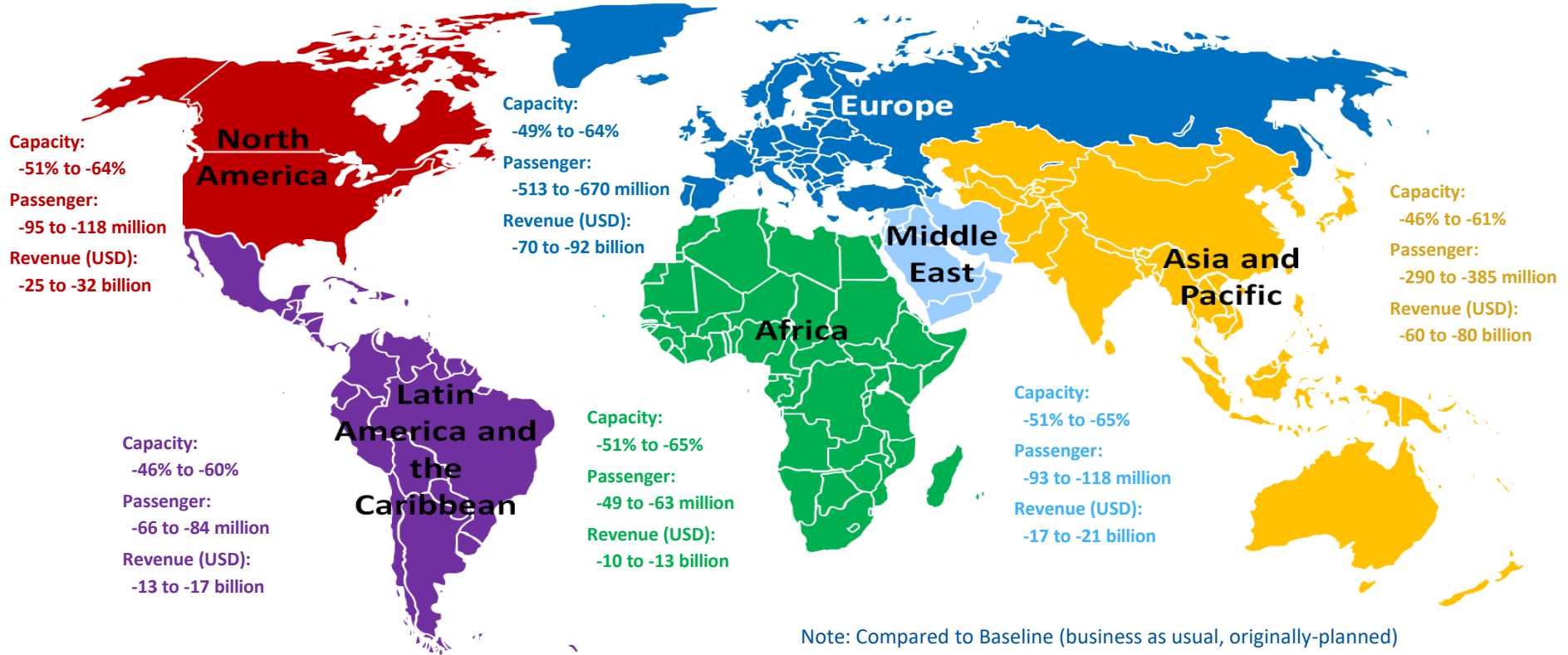
**Due to extreme uncertainty,  
4 different paths are considered**

## Scenarios for passenger seat capacity compared to Baseline (business as usual)



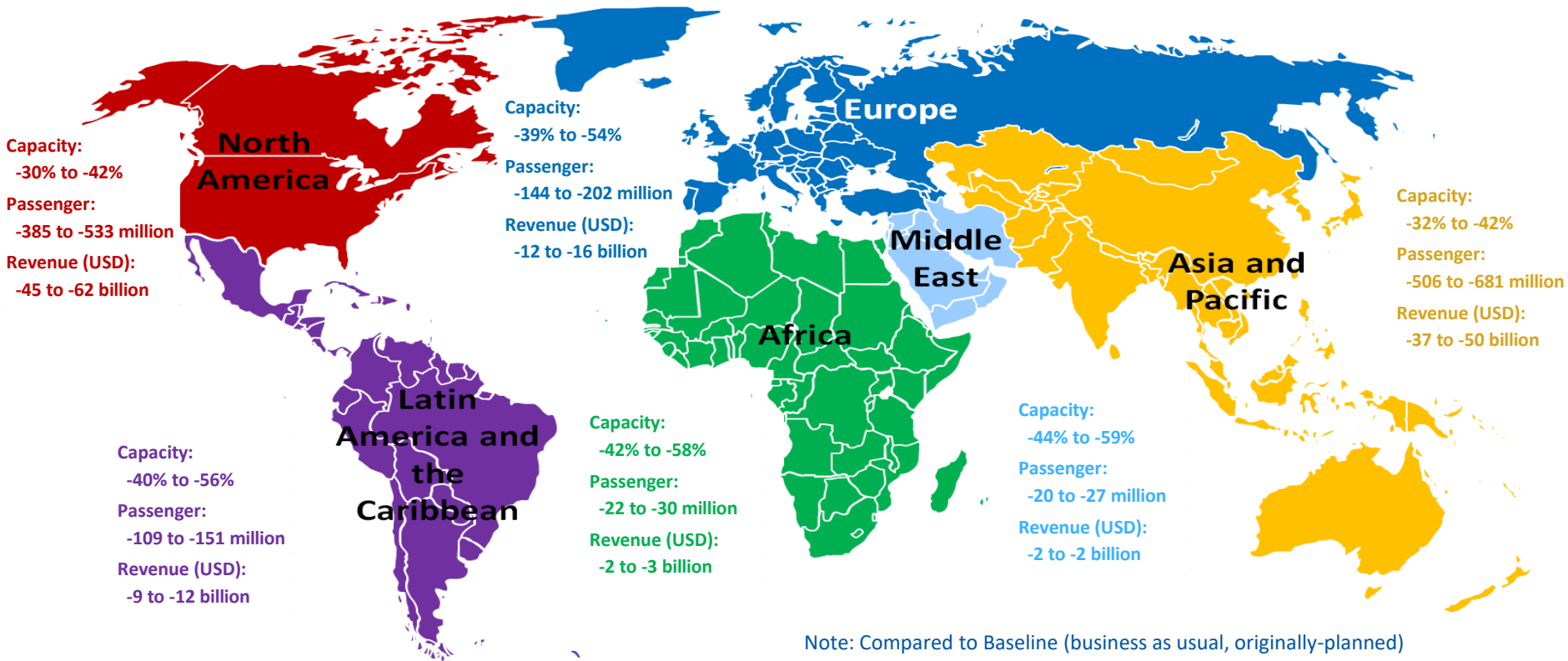


# Estimated impact on international passenger traffic and revenues by region for 2020





# Estimated impact on domestic passenger traffic and revenues by region for 2020





- **Air passenger traffic**: An overall reduction of air passengers (both international and domestic) ranging from 45% to 62% in 2020 compared to 2019 (by **ICAO**)
- **Airports**: An estimated loss of over 50% of passenger traffic and 57% or over USD 97 billion airport revenues in 2020 compared to business as usual (by **ACI**)
- **Airlines**: A 48% decline of revenue passenger kilometres (RPKs, both international and domestic) in 2020 compared to 2019 (by **IATA**)
- **Tourism**: A decline in international tourism receipts of between USD 910 to 1,170 billion in 2020, compared to the USD 1.5 trillion generated in 2019, with 100% of worldwide destinations having travel restrictions (by **UNWTO**)
- **Trade**: A fall of global merchandise trade volume by between 13% and 32% in 2020 compared to 2019 (by **WTO**)
- **Global economy**: A projected -3% to -5.2% contraction in world GDP in 2020, far worse than during the 2008–09 financial crisis (by **IMF and World Bank**)



## Scenario Building

Previous two (2) scenarios and six (6) different paths were restructured with new two (2) scenarios and four (4) different paths for scheduled passenger traffic till December 2020.



- Analysis focuses on simultaneous supply shock and drop in demand
  - in a near-term, i.e. monthly profile **from January to December 2020**
  - in terms of scheduled **passenger traffic** globally
- Taking into account the heterogeneity, distinction is made:
  - between international and domestic
  - by six (6) geographical region and/or 50 route groups used in ICAO's long-term traffic forecasts (LTF)
- Analysis is based on forward-looking scenarios, which will be continuously adjusted and updated

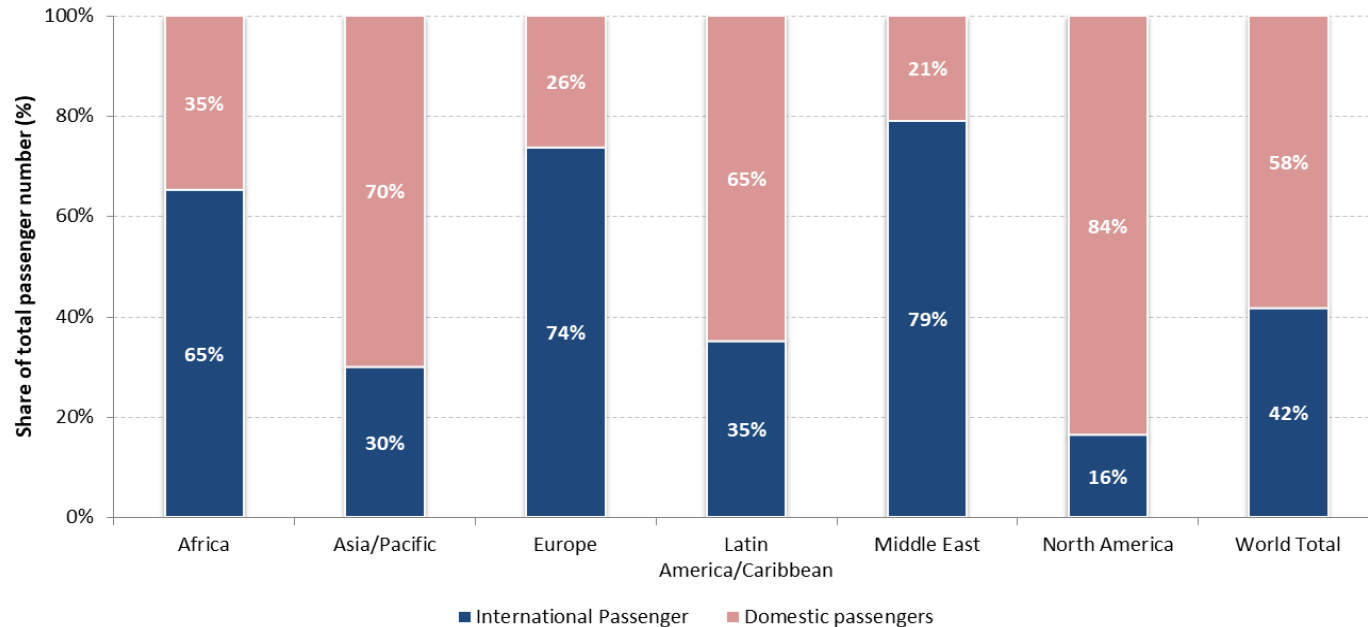


## Analytical Consideration

- Geographical disparity of international-domestic passenger traffic mix
- Difference in market size among regions
- Potential difference in resilience and speed of recovery
- Outbreak timing that impacts when traffic would bottom out
- Gap between what is scheduled and actual operations

## International-domestic passenger traffic mix exhibits significant geographical disparity

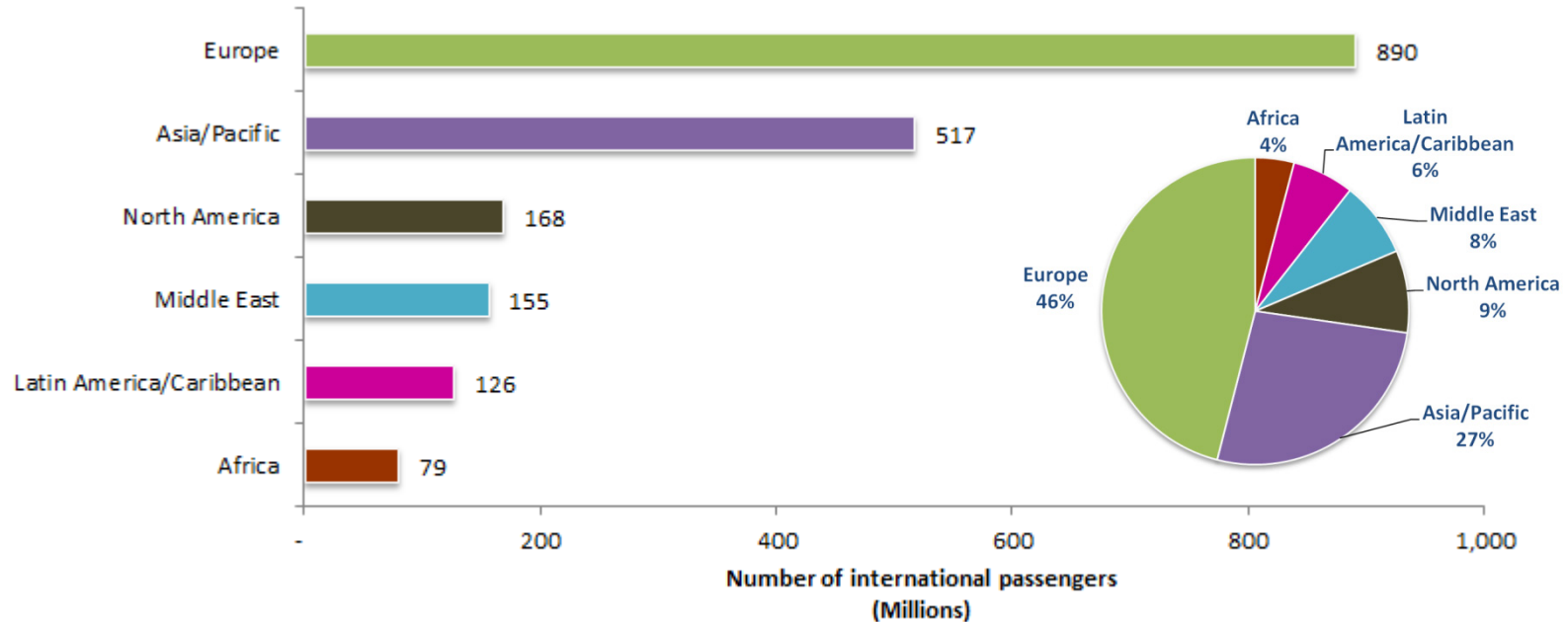
### Share of international-domestic passenger traffic by region (2019)





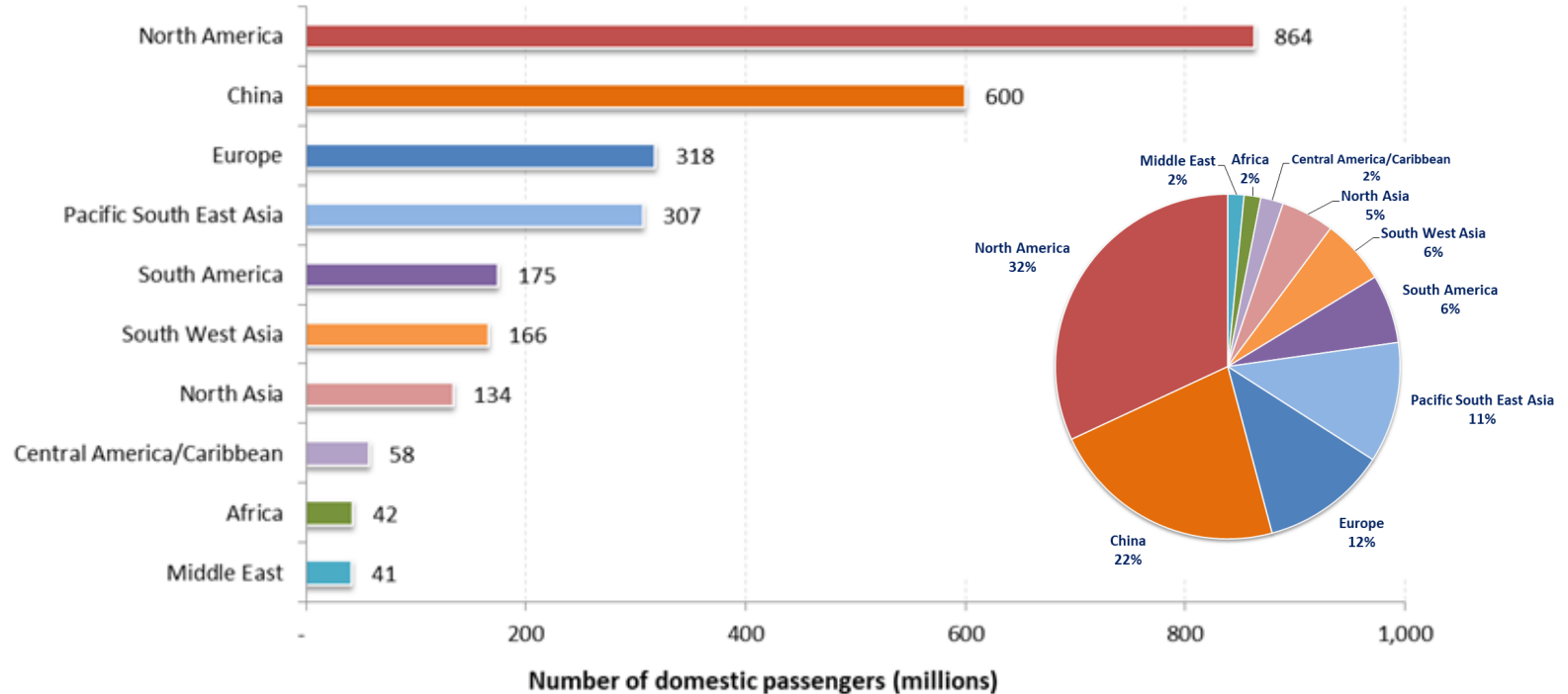
**Europe and Asia/Pacific accounted for over 70% of the world international traffic pre-COVID-19**

## Number of International Passengers by Region (2019, based on from/to State)



# North America and China account for over half of world domestic passenger traffic

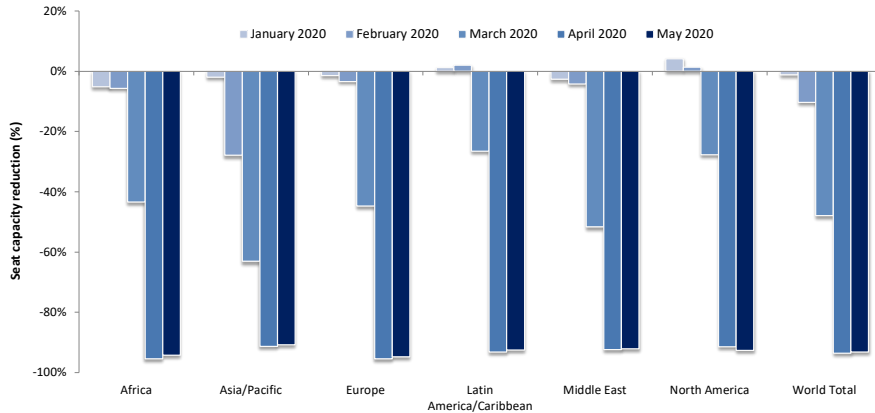
## Number of Domestic Passengers by Route Group (2019)



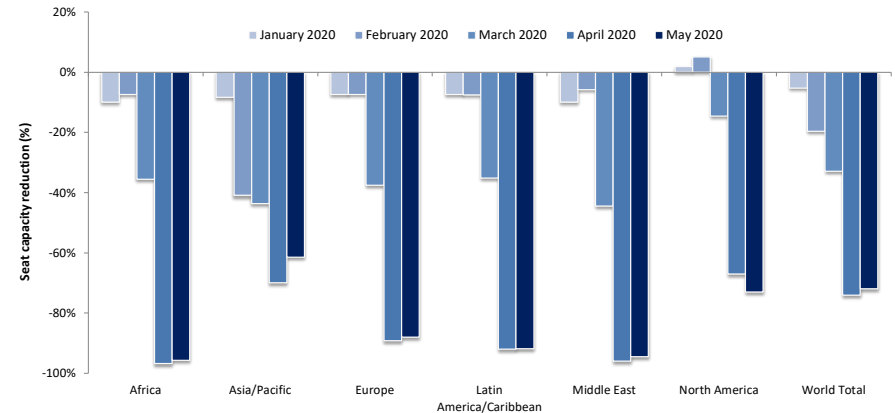
# Domestic passenger traffic may be more resilient than international in some markets

Asia/Pacific and North America have experienced 20% to 25% less decline in domestic passenger traffic than international

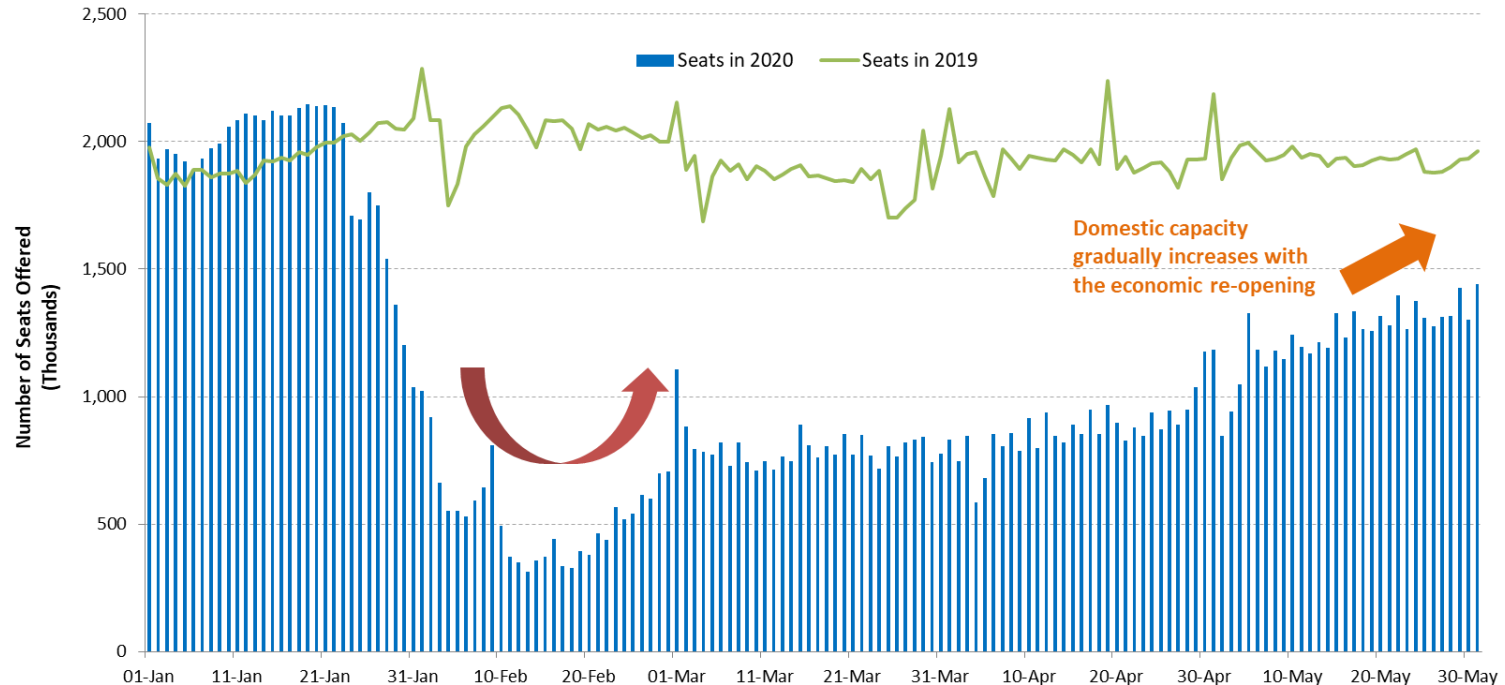
International seat capacity reduction (compared to baseline)



Domestic seat capacity reduction (compared to baseline)



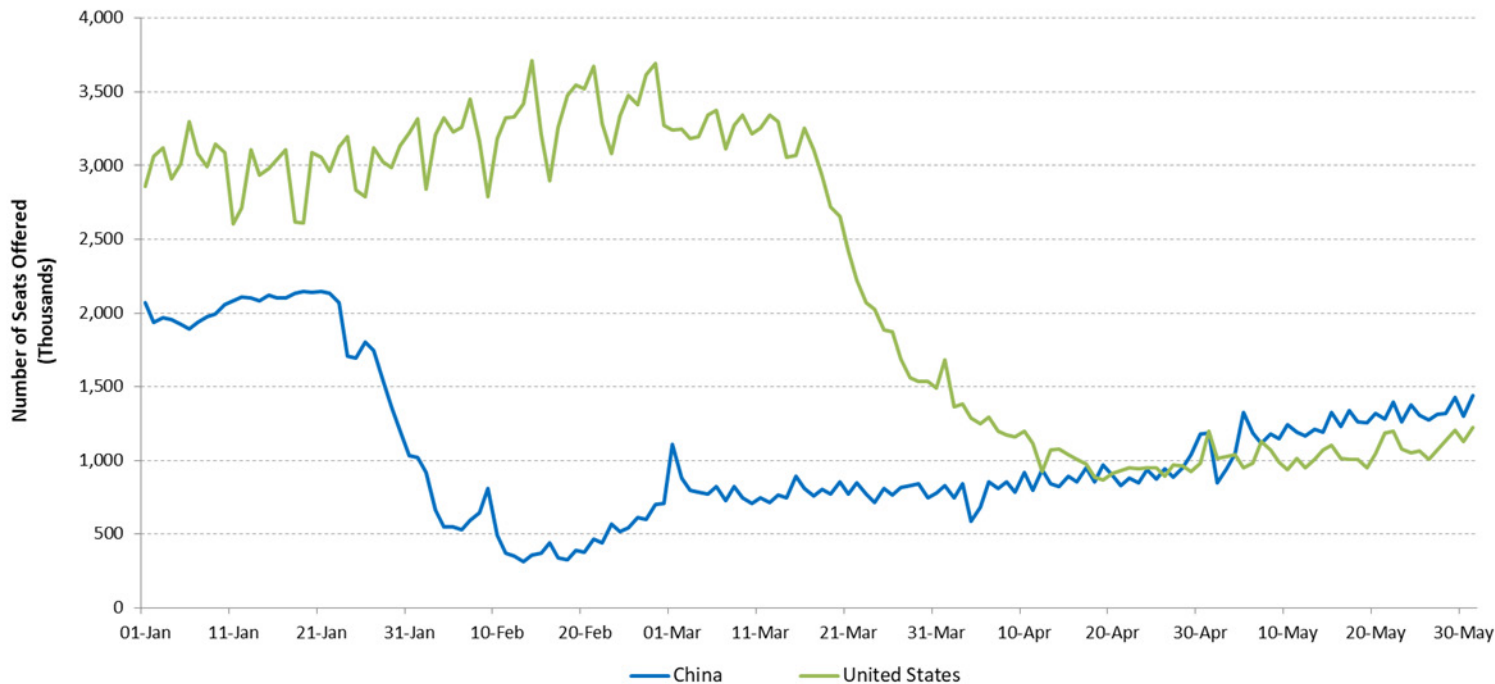
## Domestic passenger traffic in China already bottomed out in mid-February, followed by the slow pace of recovery





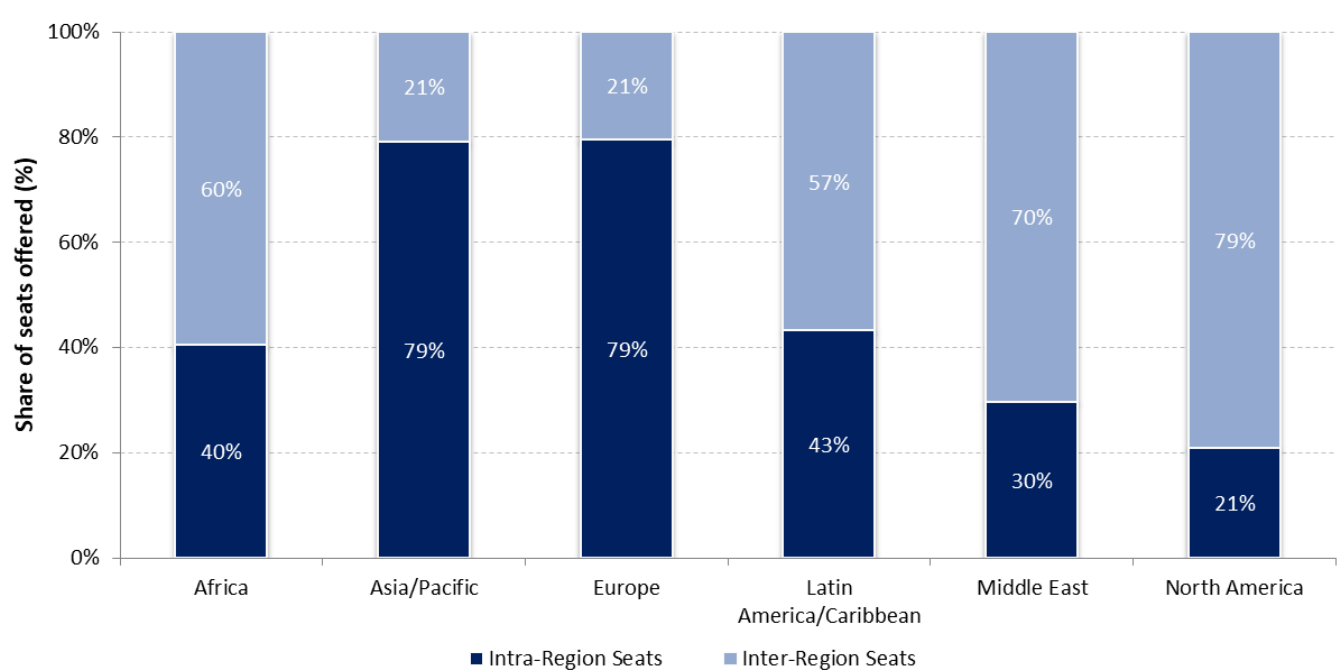
The outbreak timing impacts when traffic would bottom out in each region

### Capacity evolution of two largest domestic markets China and United States since January 2020



## Regions with higher share of intra-region traffic are expected to recover faster

### Almost 80% of international seats offered in Asia/Pacific and Europe were for intra-regional traffic (2019)

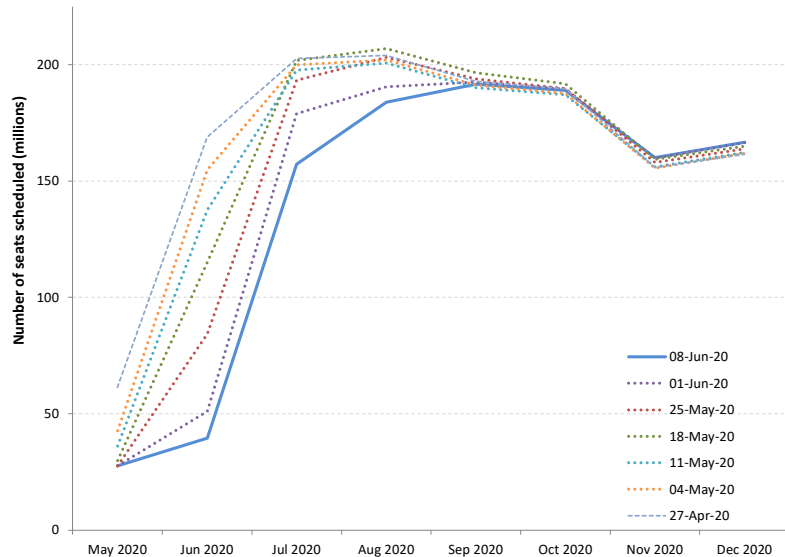




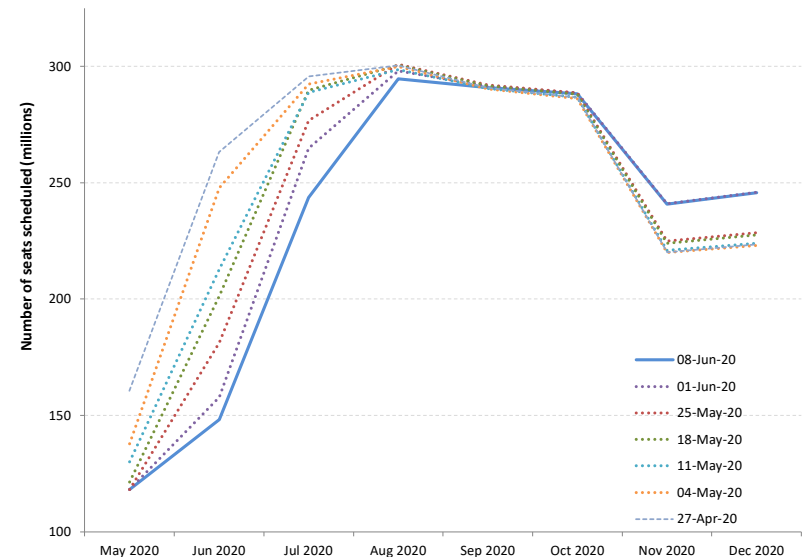
# A gap exists between what is scheduled and actual operations

Airlines announced/planned resumption of flights in early May, however, over half of which were subsequently withdrawn

### International schedules



### Domestic schedules





## Shapes of Economic Recession and Recovery

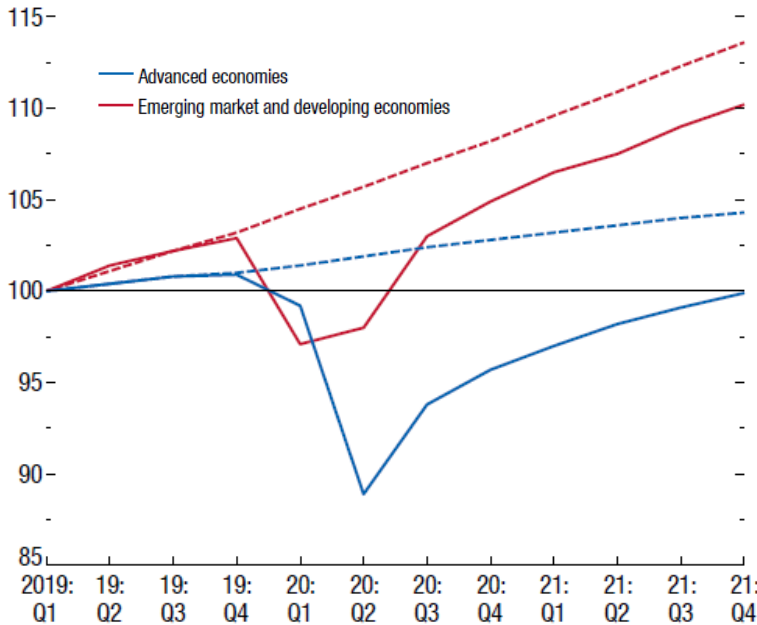
Informal classification to describe different types of recessions:

- **V-shaped**: normal shape for recession, a brief period of sharp economic decline followed by quick/smooth recovery
- **U-shaped**: prolonged contraction and muted recovery to trend line growth
- **L-shaped (depression)**: long-term downturn in economic activity, steep drop followed by a flat line with possibility of not returning to trend line growth
- **W-shaped**: a double-dip recession, “down up down up” pattern before full recovery
- **“Nike swoosh”-shaped\***: bounce back sharply but blunt quickly (\* Brookings Institution/WEF)



# What “recession shape” can be assumed given uncertainties surrounding the outlook?

World’s GDP Projections (by IMF)



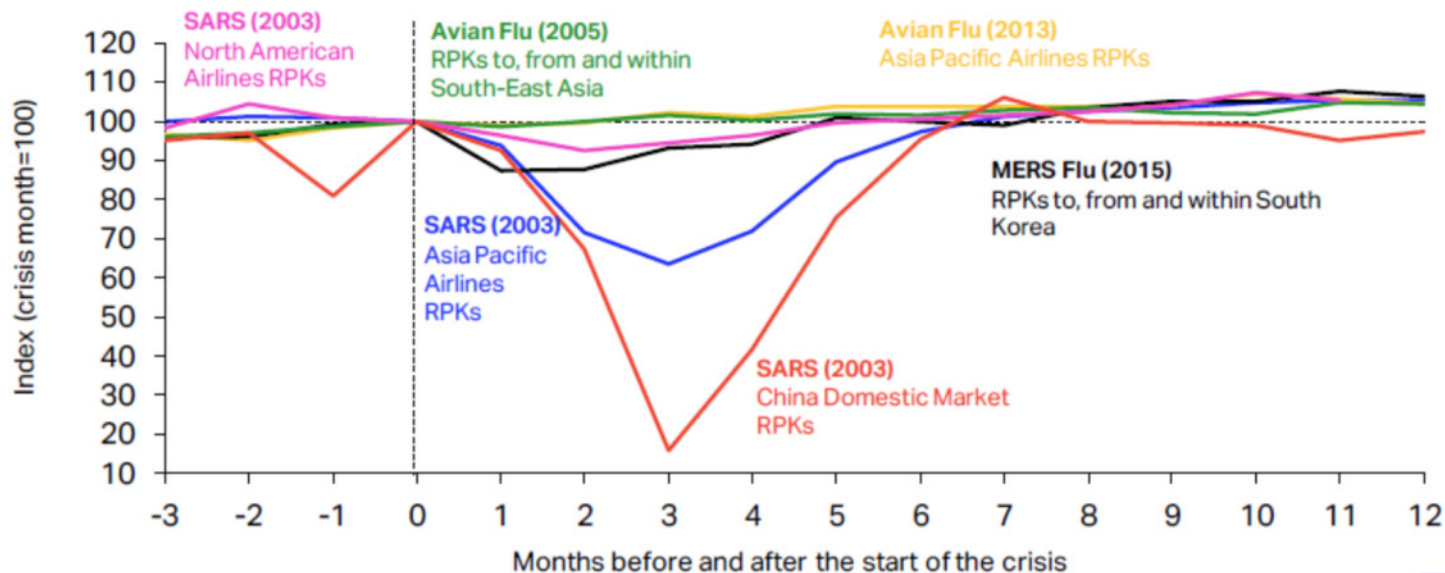
(2019:Q1 = 100; dashed lines indicate estimates from January 2020 World Economic Outlook Update)

<https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>

- How long will the pandemic last and what will be the severity levels?
- How deep and how long will the global recession be?
- How long will lockdowns and travel restrictions continue?
- How fast will consumer confidence in air travel be restored?
- Will there be a structural shift in industry and consumers’ behaviors?
- How long can the air transport industry withstand the financial adversity?

# Previous outbreaks/pandemics had a V-shaped impact on air transport in Asia/Pacific

Impact of past disease outbreaks on aviation



The impact of COVID-19 has already surpassed the 2003 SARS outbreak which had resulted in reduction of annual RPKs by 8% and USD 6 billion revenues for Asia/Pacific airlines. **The 6-month recovery path of SARS might not apply to today's situation.**

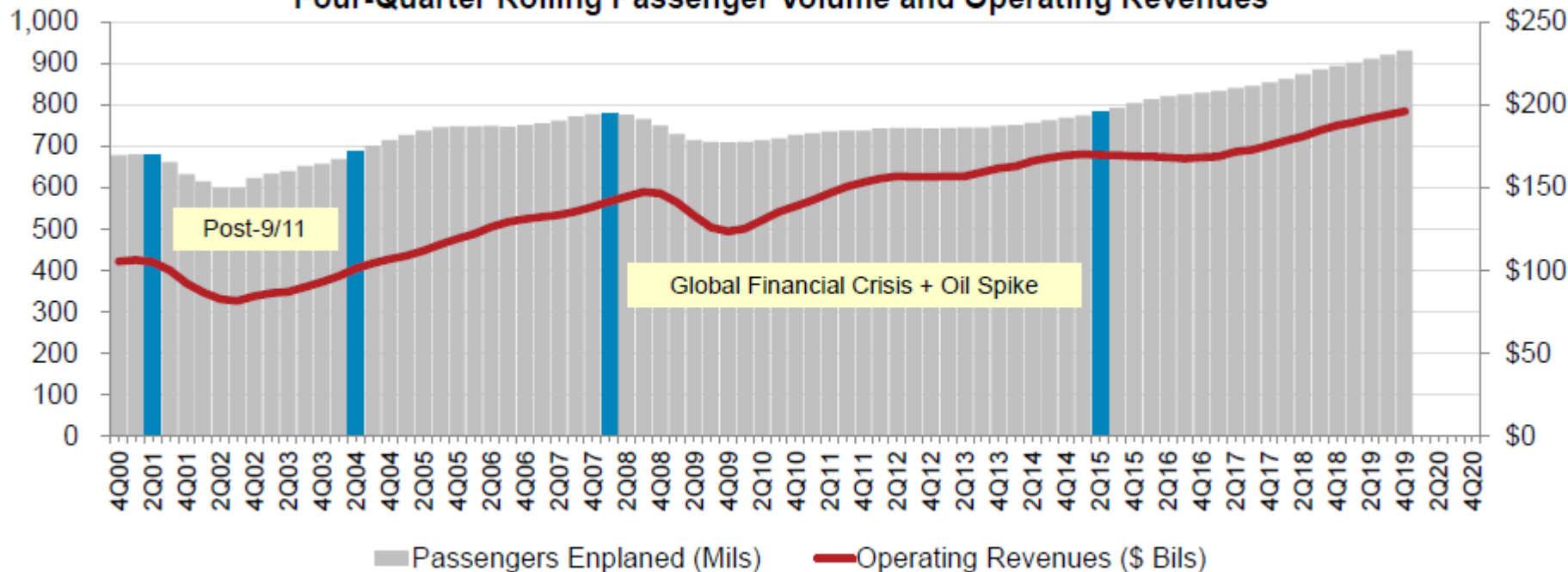
Source: IATA Economics using data from IATA Statistics

<https://www.iata.org/en/iata-repository/publications/economic-reports/third-impact-assessment/>



# 9/11 and global financial crisis had a U/L-shaped impact on air transport in United States

### Four-Quarter Rolling Passenger Volume and Operating Revenues



\* Passengers enplaned systemwide on U.S. airlines in scheduled and nonscheduled services  
Source: A4A Passenger Airline Cost Index and Bureau of Transportation Statistics (Form 41 Schedule T1)

<https://www.airlines.org/dataset/impact-of-covid19-data-updates/>



## Indicative Scenarios and Paths Forward

As overall severity and duration of the COVID-19 pandemic are still uncertain, four (4) different recovery paths under two (2) indicative scenarios are developed:

- **Baseline:** counterfactual scenario, in which the COVID-19 pandemic does not occur, that is, **originally-planned** or **business as usual**
- **Scenario 1:** two (2) different paths (similar to **Nike swoosh- and W-shaped**)
- **Scenario 2:** two (2) different paths (similar to **U- and L-shaped**)
- **Reference:** information only, based on latest airline schedules (similar to **V-shaped**)



- Notwithstanding the elevated uncertainty surrounding the outlook, a scenario analysis could help gauge potential economic implications of the COVID-19 pandemic
- Scenarios are **not forecasts** of what is most likely to happen. Given rapidly changing circumstances, they are merely indicative of **possible paths or consequential outcomes out of many**
- The exact path (depth, length and shape) will depend upon various factors, inter alia, duration and magnitude of the outbreak and containment measures, availability of government assistance, consumer confidence, and economic conditions
- With the situation evolving and more information available, scenarios will be adjusted as necessary



- International and domestic passenger traffic has separate scenarios/paths
- Scenarios/paths are differentiated in terms of supply and demand, i.e.
  - Scale of output or seat capacity change
  - Degree of consumer confidence that can be translated into demand or load factor as a proxy
- Supply and demand are influenced by:
  - Different timing and speed of recovery by region, international/domestic, and intra-/inter-region
  - Global economic contraction
- No consideration is made to social distancing requirements on aircraft, etc.
- Detailed scenario assumptions are summarized in **Appendix B**



- **Baseline: originally-planned or business as usual**
  - Counterfactual hypothesis that are expected to occur in the absence of COVID-19 pandemic
  - Supply: airlines' originally-planned schedules supplemented by trend line growth
  - Demand: trend line growth of demand from 2019 level
- **Reference: V-shaped**
  - Information-only scenario that reflects airlines' most recent expectation or a “signal” of airlines' plan to the market (not necessarily realistic)
  - Supply: based on latest update of airline schedules filed up to December, which are adjusted weekly by airlines according to the expectation of the evolving situation (quite often managing capacity for a short period due to the uncertainties)
  - Demand: quickly returning to Baseline level



## Scenario 1: Nike swoosh- and W-shaped

- International
  - **Path 1:** Smooth capacity recovery to 80% of Baseline level by December with pent-up demand
  - **Path 1a:** Capacity to start with smooth recovery but then turn back down due to over-capacity
- Domestic
  - **Path 1:** Swift capacity rebound to 93% of Baseline by December pushed by pent-up demand
  - **Path 1a:** Capacity to start with smooth recovery but then turn back down due to over-capacity

## Scenario 2: U- and L-shaped

- International
  - **Path 2:** Slow progression of capacity recovery to 60%, picking up more demand in 4Q
  - **Path 2a:** Recovery to 40% at diminishing speed due to respite and continuous demand slump
- Domestic
  - **Path 2:** Gradual capacity recovery to 80%, picking up more demand in 4Q
  - **Path 2a:** Capacity recovery to 60% at diminishing speed due to sluggish demand growth

In the following analysis, international and domestic scenarios having the same path number are linked with each other, although different combination of scenarios/paths would be possible





## Scenario Estimates

Figures and estimates herein are **subject to substantial changes**, and will be updated with the situation evolving and more information available.



- Three (3) key impact indicators under four (4) paths of two (2) scenarios:
  - Impact on passenger seat capacity (supply, % change)
  - Impact on passenger numbers (demand)
  - Impact on gross passenger operating revenues of airlines
- Comparison to:
  - Baseline scenario
  - 2019 level (year-on-year)
  - Reference scenario
- Break-down by:
  - International and domestic
  - Six (6) geographical regions

Estimation based on actual results of January to May 2020 are used for the key impact indicators.

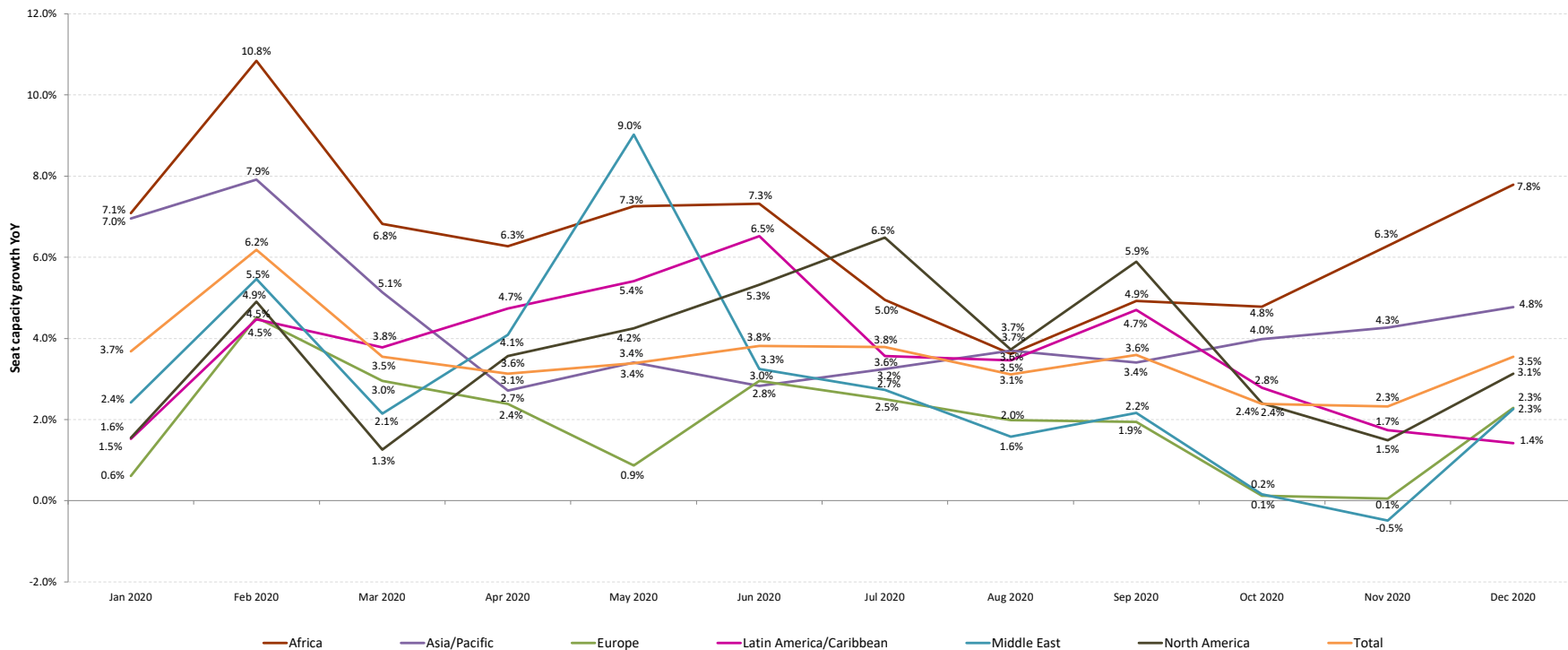
**Appendix C** details the key impact indicators while **Appendix D** presents estimation based on actual results by route group.



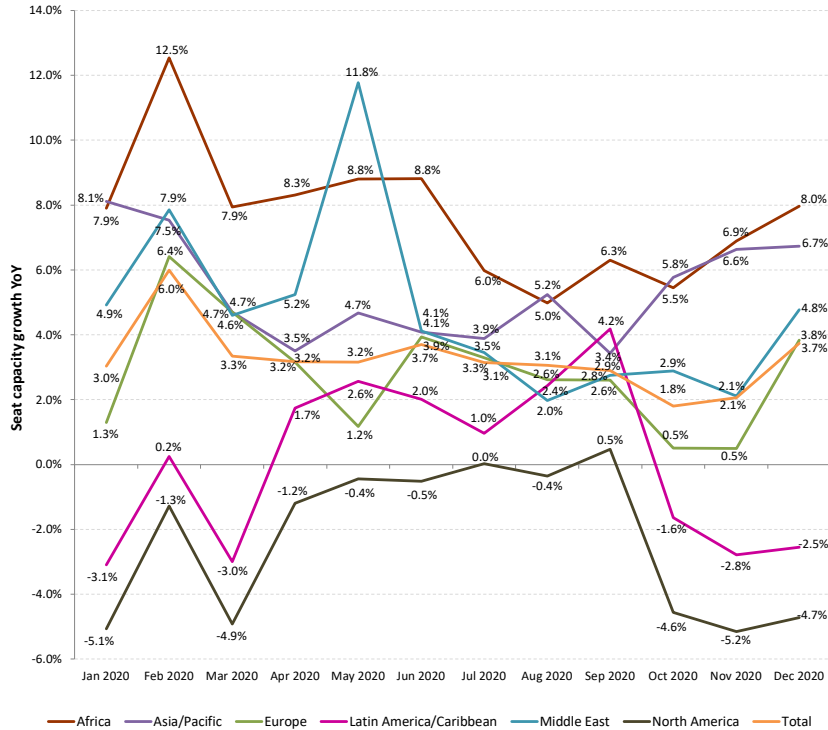
## Impact on Passenger Seat Capacity (Supply)

- Prior to the outbreak, airlines had planned to increase seat capacity in 2020 by **3.5%** (international by **3.2%** and domestic by **3.7%**), compared to 2019.
- According to the latest estimates, passenger seat capacity could instead drop from the above Baseline by **40% to 53%** (international by **48% to 63%** and domestic by **33% to 45%**).
- This capacity level would be **37% to 51%** (international **47% to 62%** and domestic **31% to 43%**) below the 2019 level.
- Biggest capacity reduction (%) is expected to be in Middle East, followed by Africa and Europe.

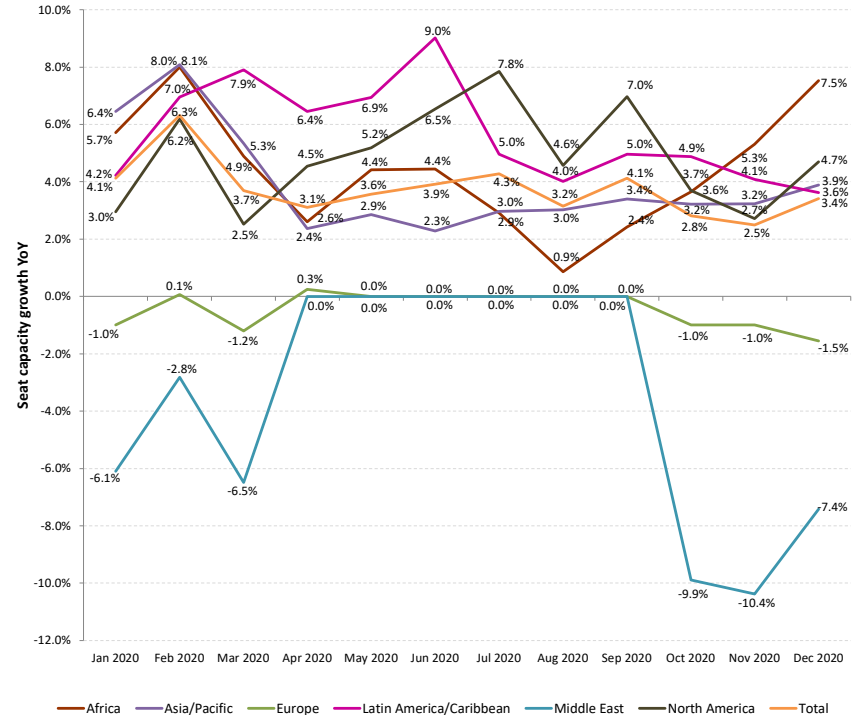
International + Domestic (+3.5% YoY)



## International (+3.2% YoY)



## Domestic (+3.7% YoY)

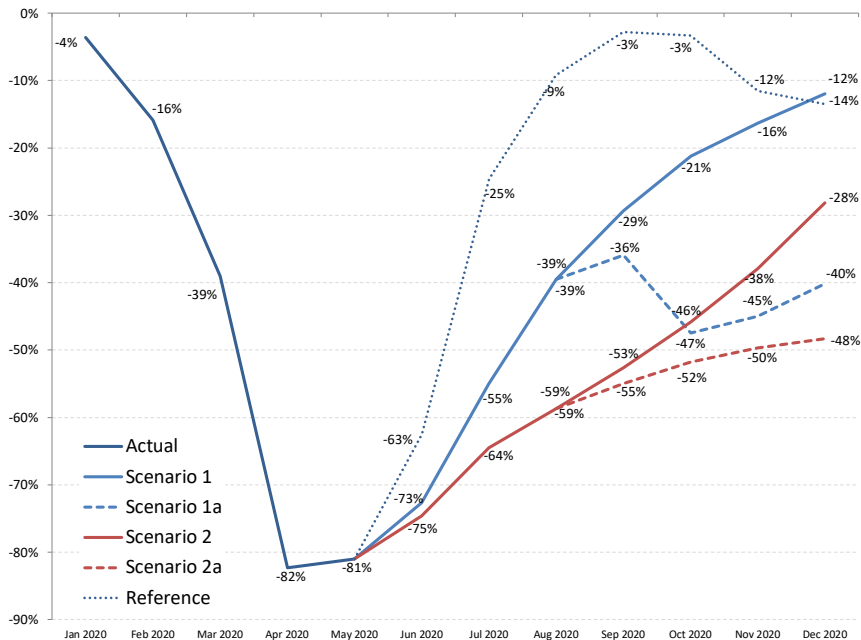




# Scenarios 1 & 2 (World total): Seat capacity change compared to Baseline & 2019

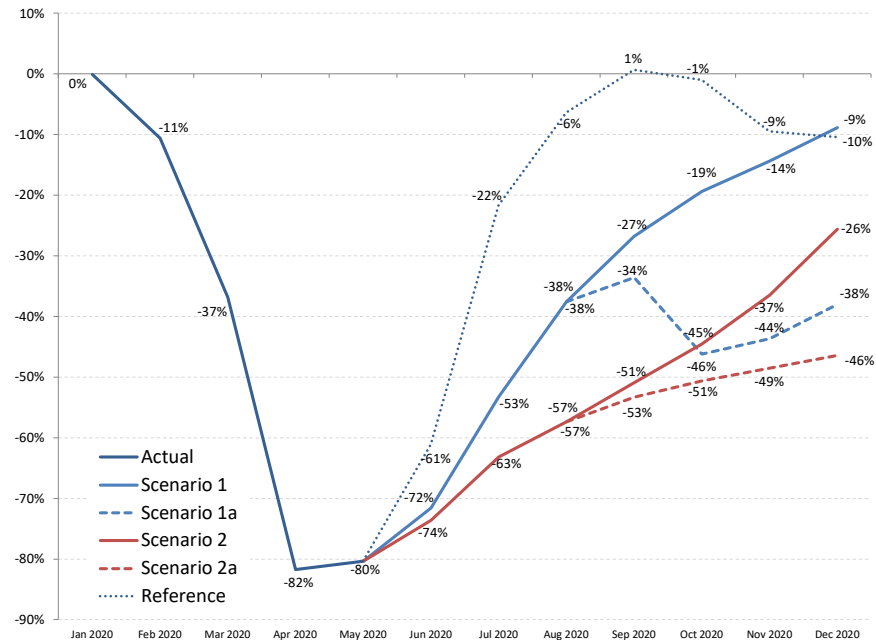
## International + Domestic

(-40% to -53% from Baseline)



## International + Domestic

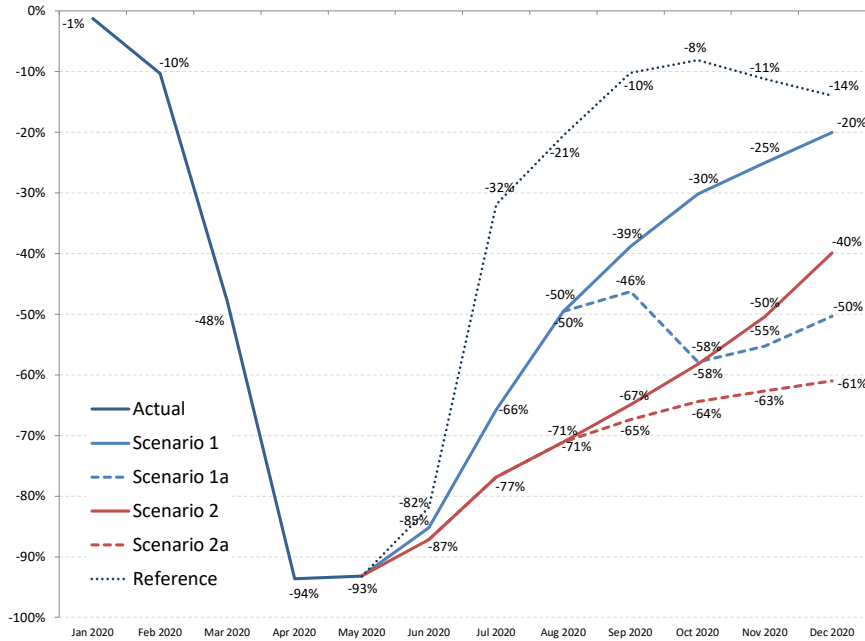
(-37% to -51% YoY)



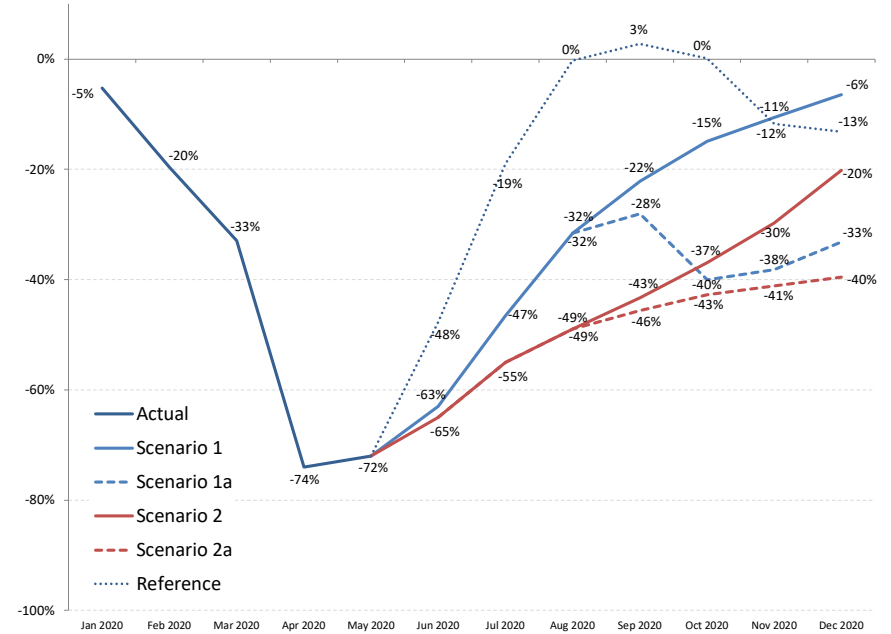


# Scenarios 1 & 2 (World total): Seat capacity change compared to Baseline

## International (-48% to -63% from Baseline)



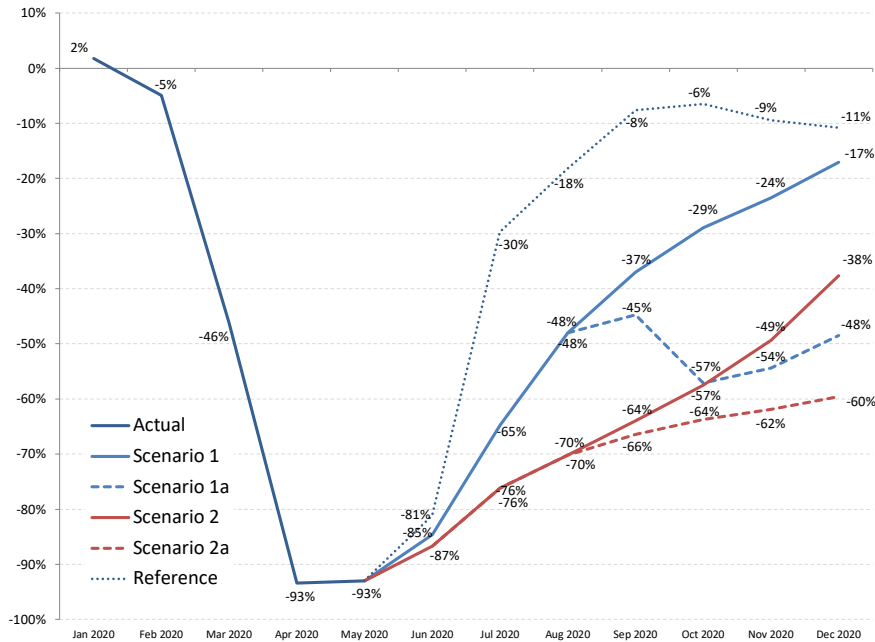
## Domestic (-33% to -45% from Baseline)



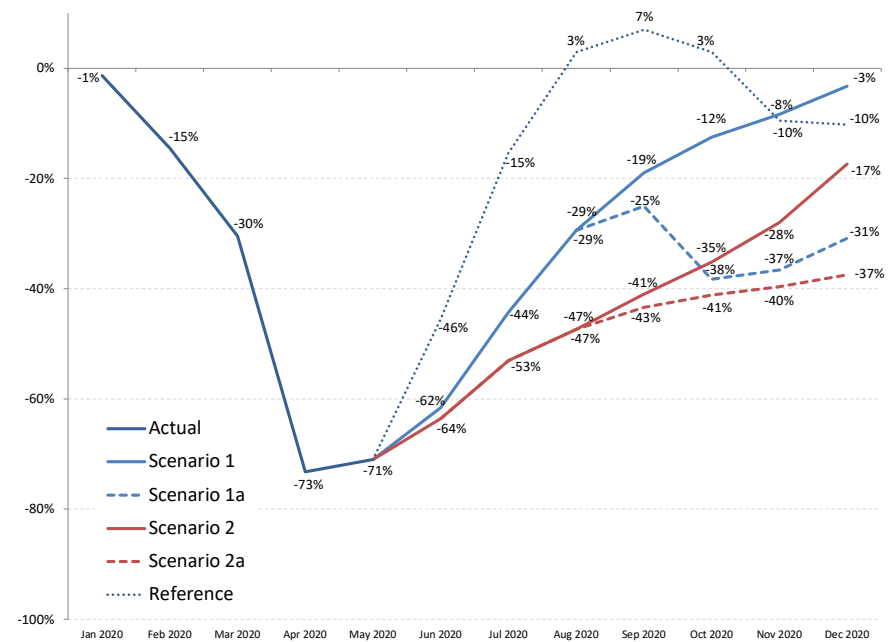


# Scenarios 1 & 2 (World total): Seat capacity change compared to 2019

## International (-47% to -62% YoY)



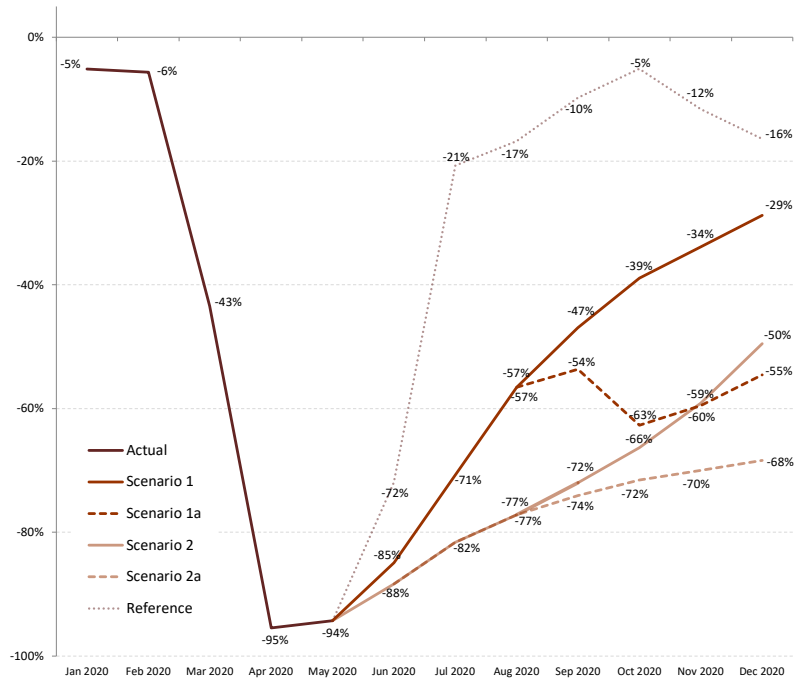
## Domestic (-31% to -43% YoY)



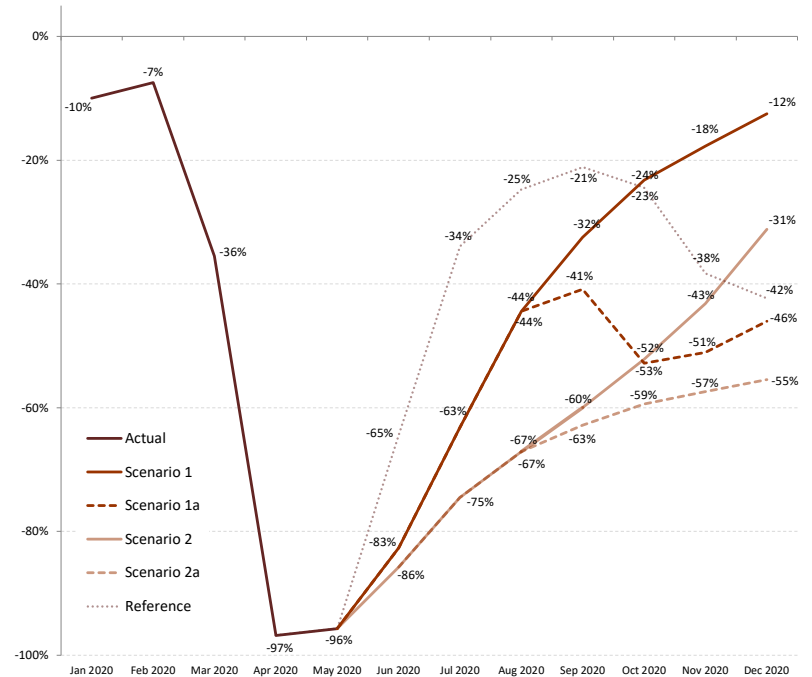


# Scenarios 1 & 2 (Africa): Seat capacity change compared to Baseline

## International (-51% to -65% from Baseline)



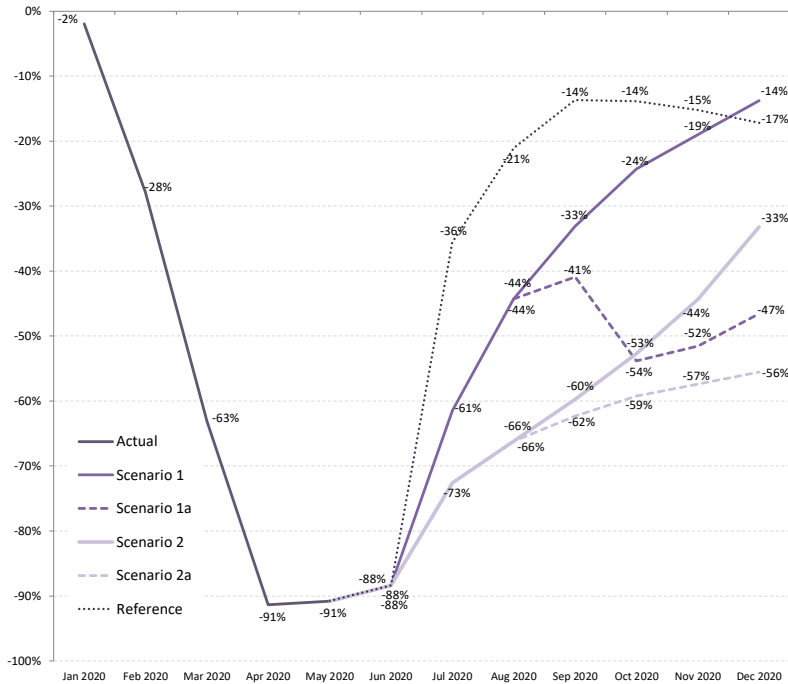
## Domestic (-42% to -58% from Baseline)



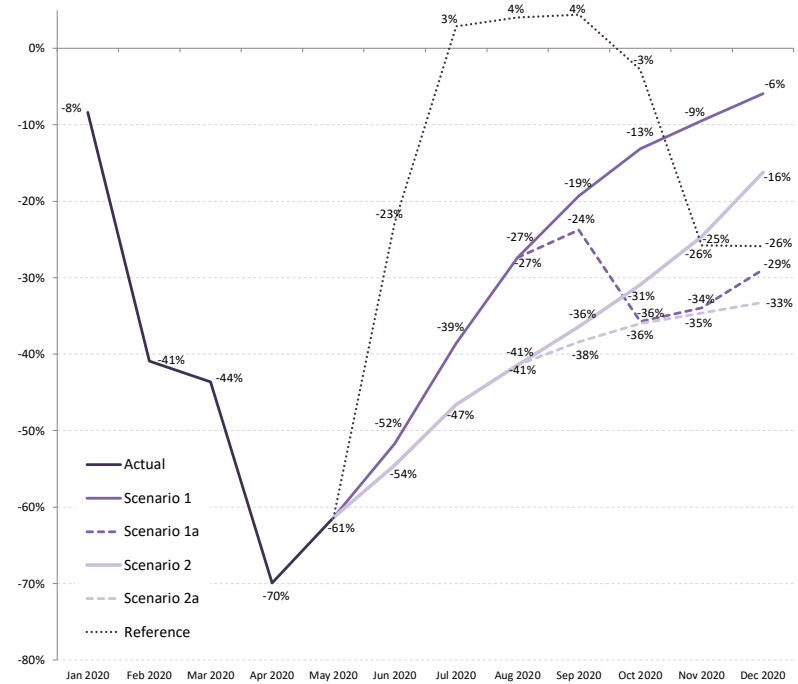


# Scenarios 1 & 2 (Asia/Pacific): Seat capacity change compared to Baseline

### International (-46% to -61% from Baseline)

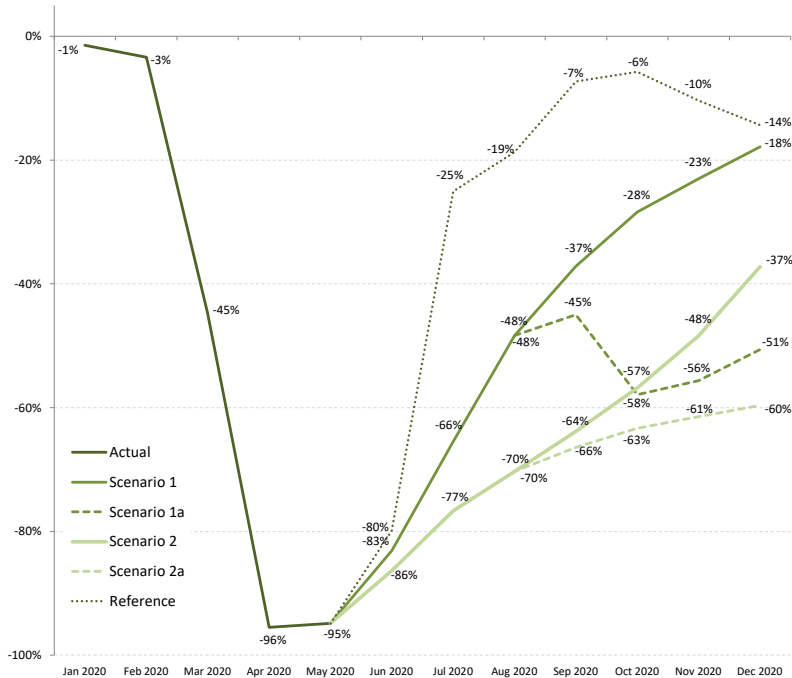


### Domestic (-32% to -42% from Baseline)

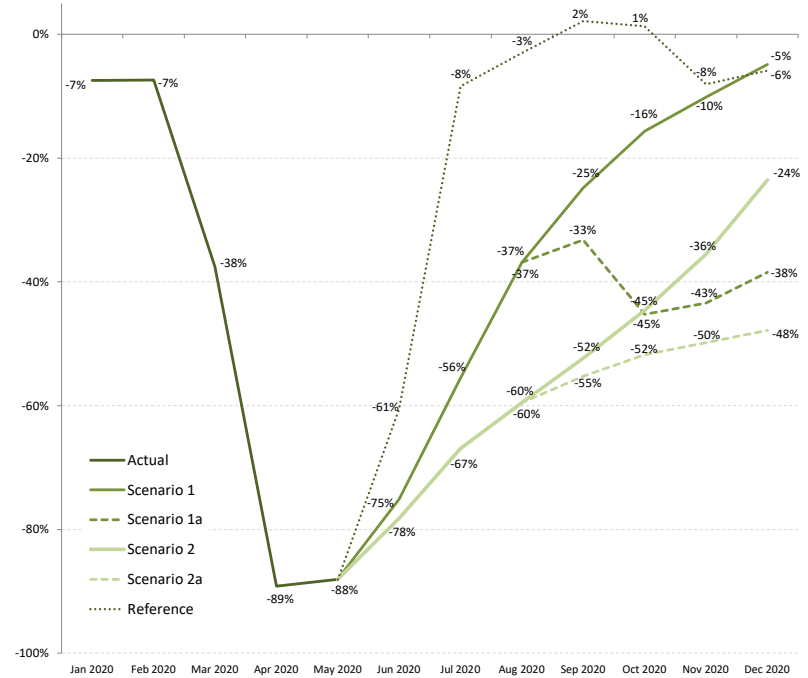


# Scenarios 1 & 2 (Europe): Seat capacity change compared to Baseline

## International (-49% to -64% from Baseline)

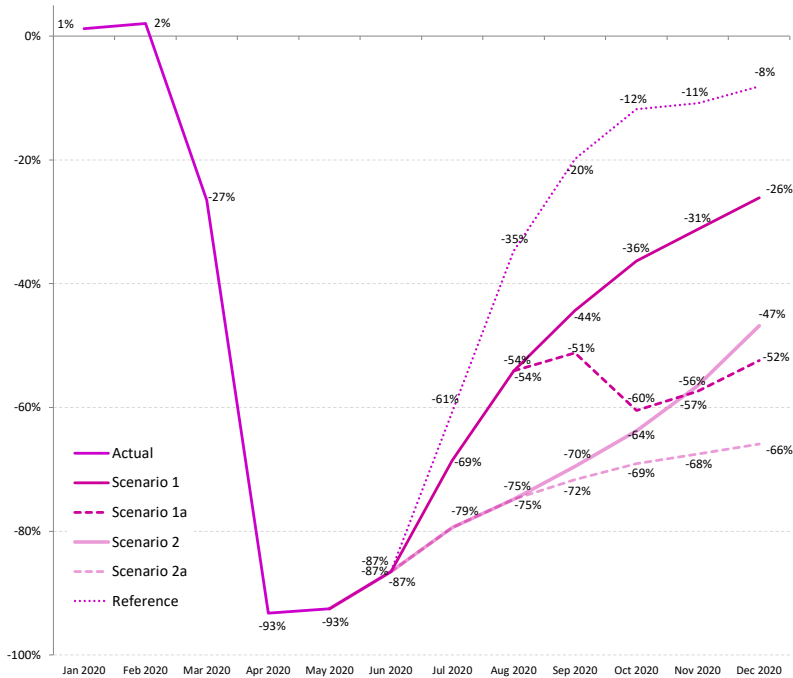


## Domestic (-39% to -54% from Baseline)

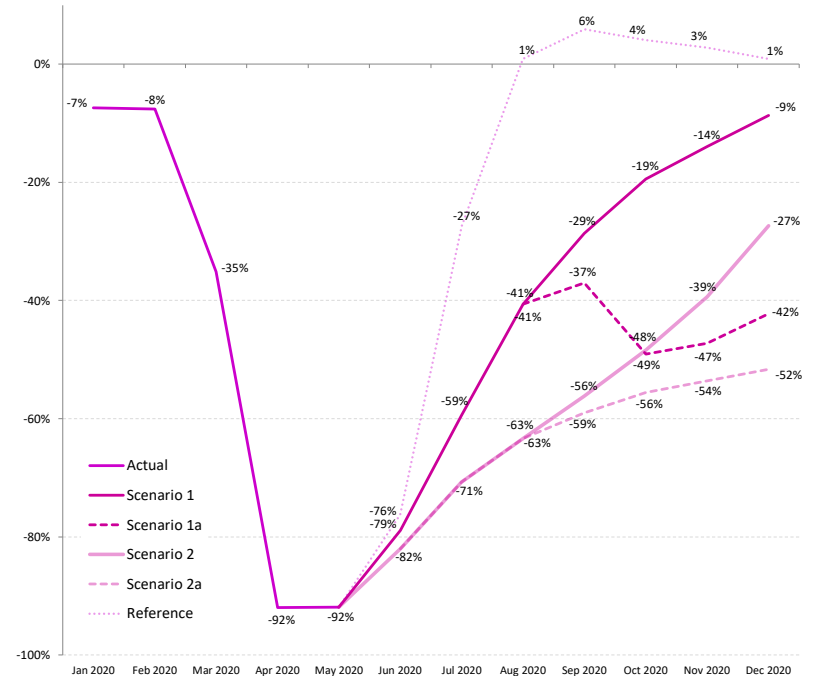


# Scenarios 1 & 2 (Latina America/Caribbean): Seat capacity change compared to Baseline

## International (-46% to -60% from Baseline)



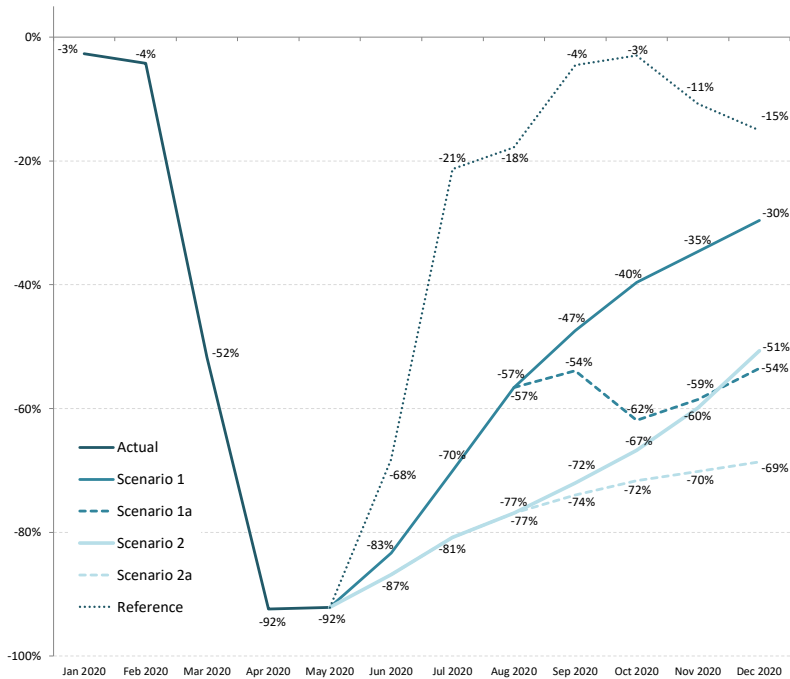
## Domestic (-40% to -56% from Baseline)



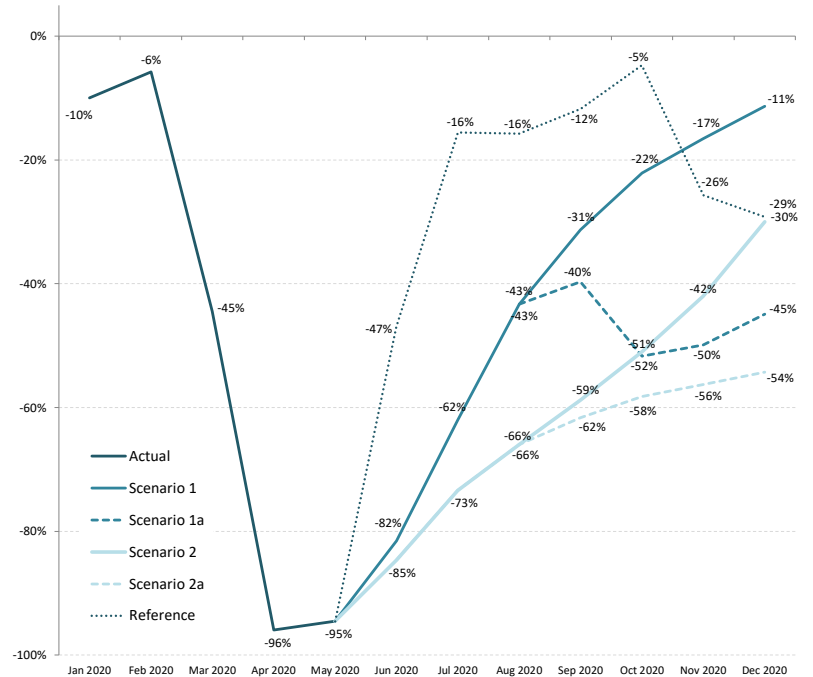


# Scenarios 1 & 2 (Middle East): Seat capacity change compared to Baseline

### International (-51% to -65% from Baseline)



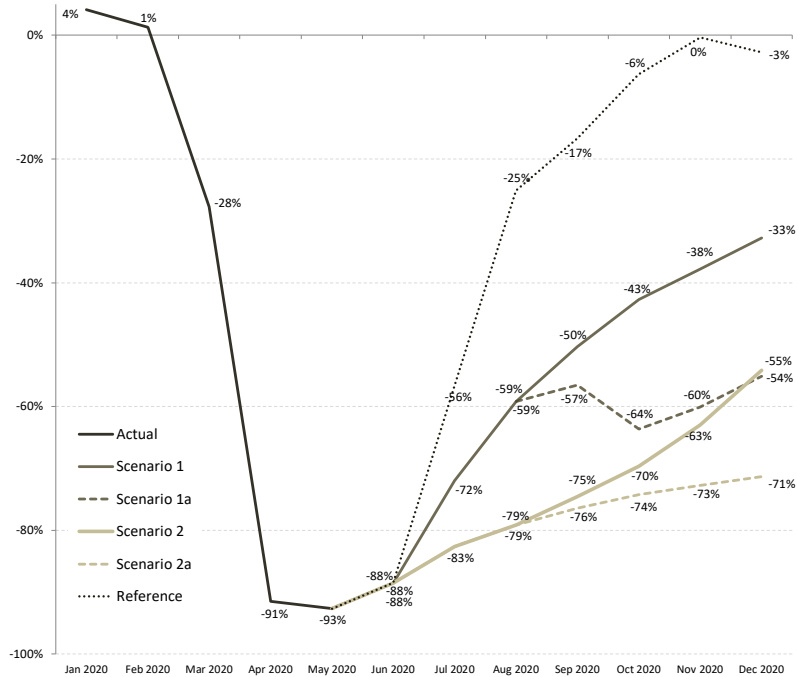
### Domestic (-44% to -59% from Baseline)



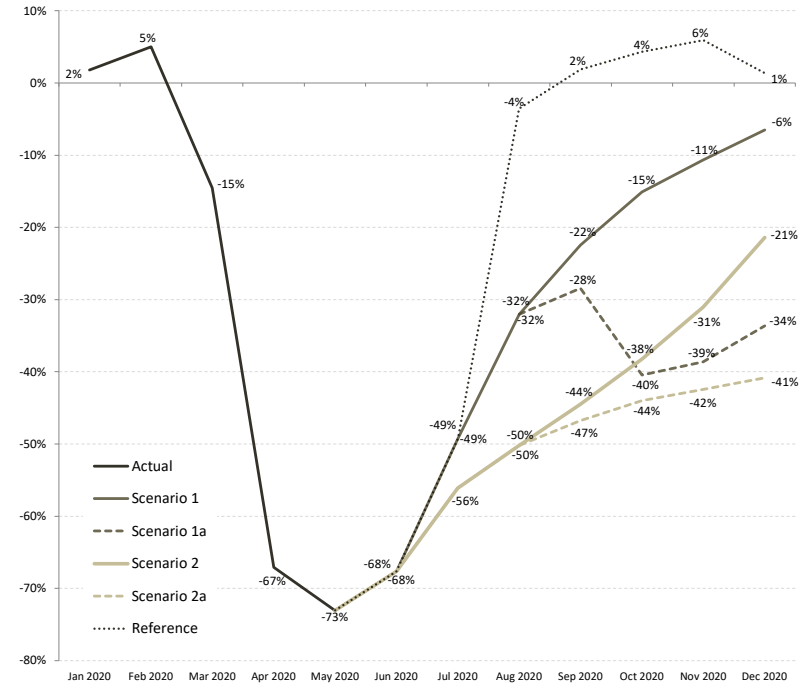


# Scenarios 1 & 2 (North America): Seat capacity change compared to Baseline

## International (-51% to -64% from Baseline)



## Domestic (-30% to -42% from Baseline)

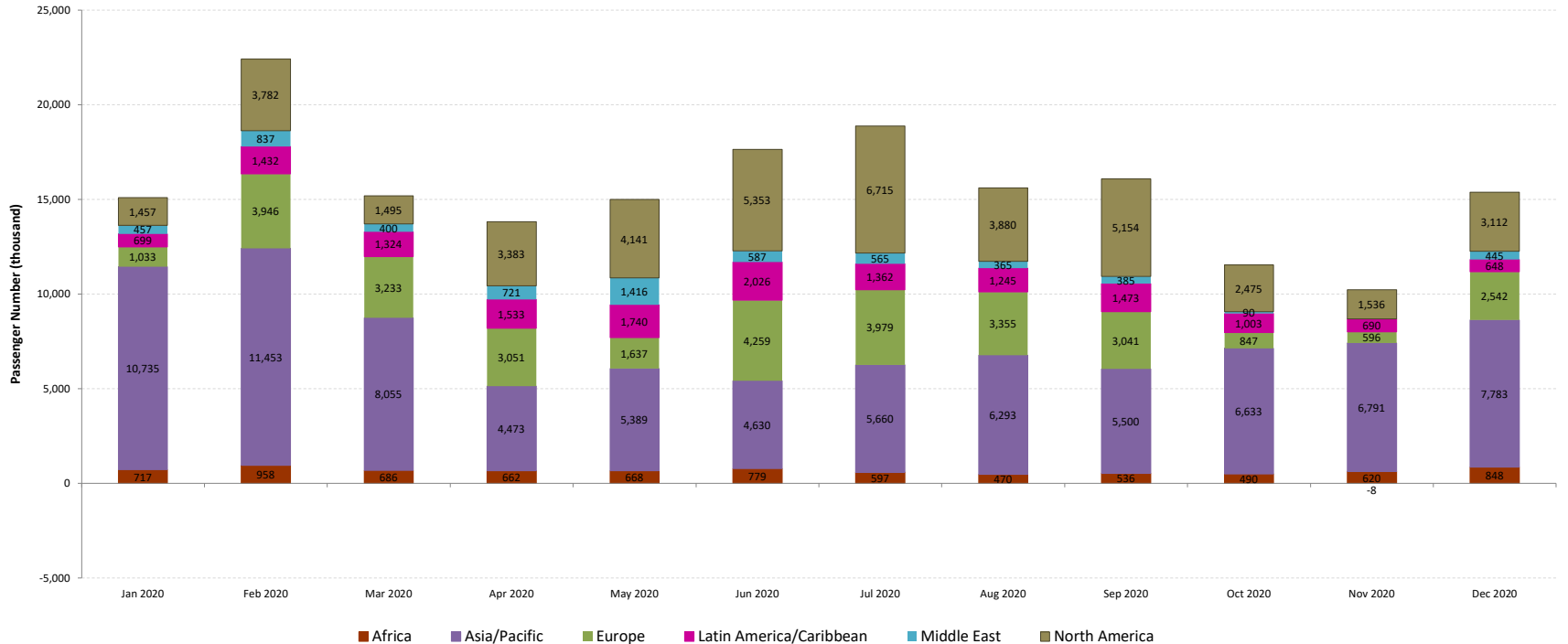




## Impact on Passenger Numbers (Demand)

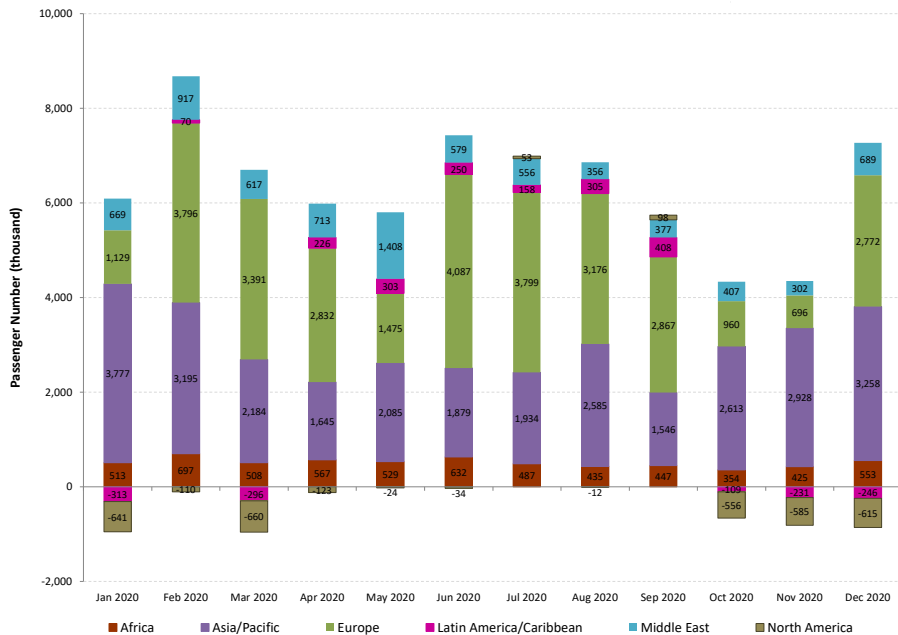
- Given the originally-planned seat capacity, passenger demand could have increased **187 million** for 2020 (international **72 million** and domestic **115 million**), compared to 2019.
- According to the latest estimates, passenger demand could instead drop from the above Baseline by **2,291 to 3,061 million** (international by **1,105 to 1,437 million** and domestic by **1,186 to 1,623 million**).
- This demand level would be **2,104 to 2,874 million** (international by **1,033 to 1,366 million** and domestic by **1,071 to 1,508 million**) below the 2019 level.
- The most substantial demand reduction (in total number) is expected to be in Asia/Pacific, followed by Europe, hitting its summer travel peak season.

International + Domestic (+187 million)

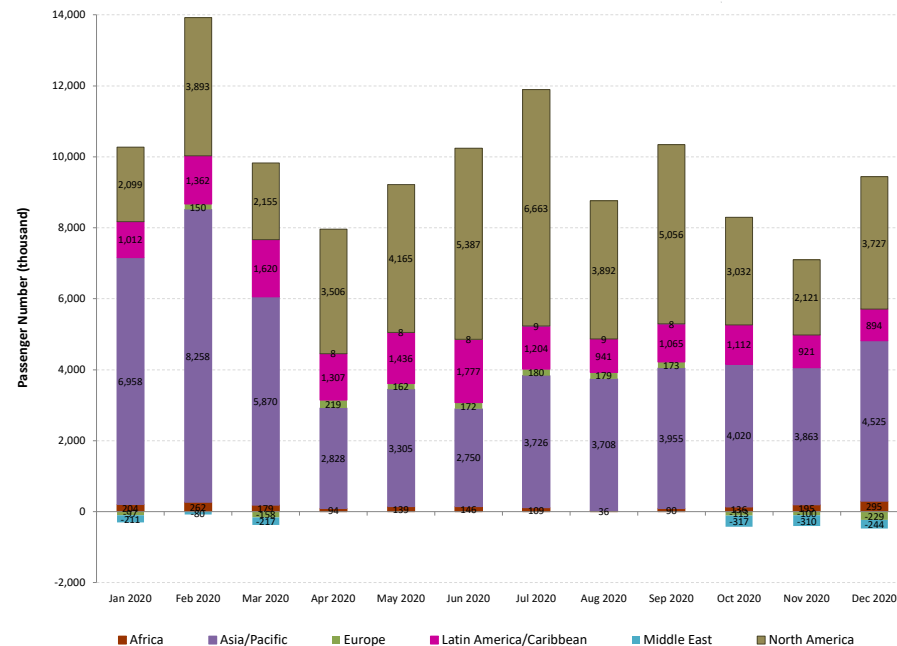




## International (+72 million)



## Domestic (+115 million)



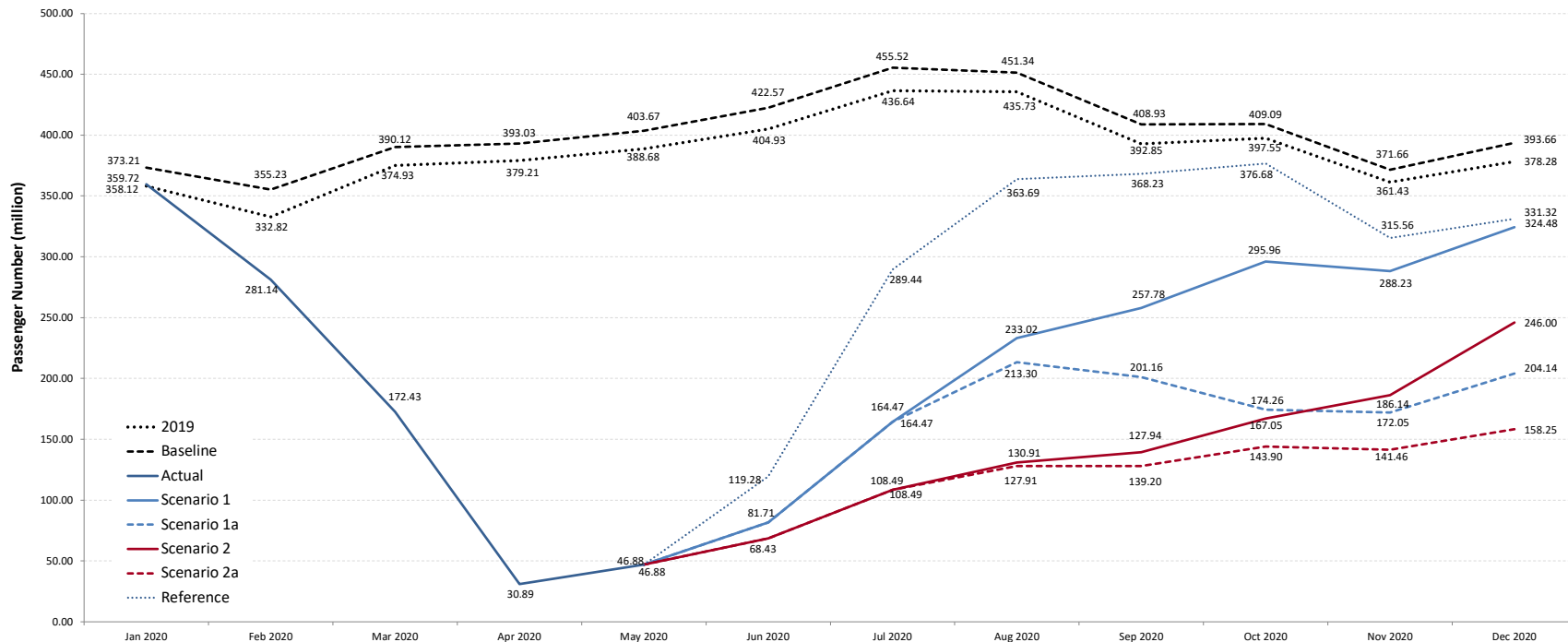
Note: Number of international passengers departing from each country and territory, which are aggregated at the regional level to avoid double counting



# Scenarios 1 & 2 (World total): Passenger numbers compared to Baseline & 2019

## International + Domestic

(-2,291 to -3,061 million from Baseline and -2,104 to -2,874 million from 2019)

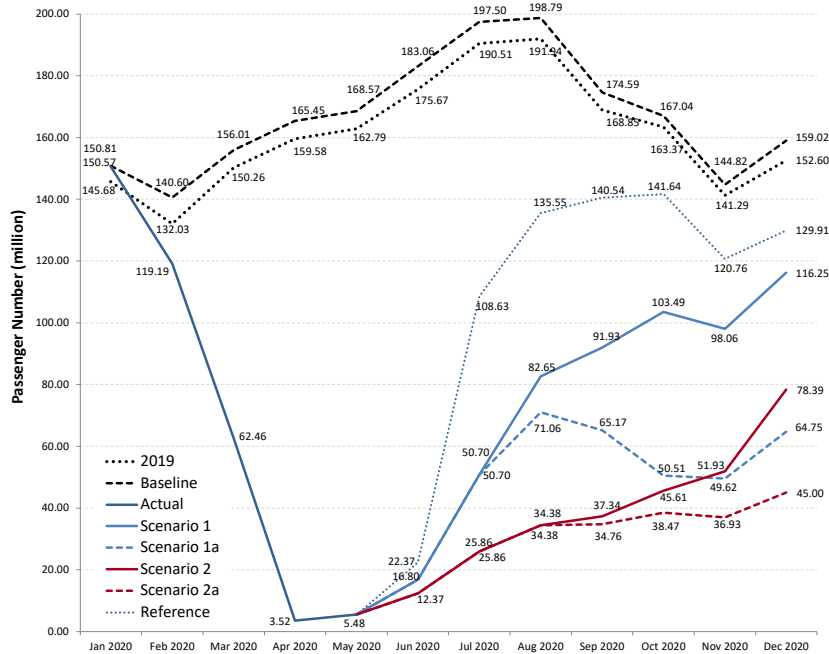




# Scenarios 1 & 2 (World total): Passenger numbers compared to Baseline & 2019

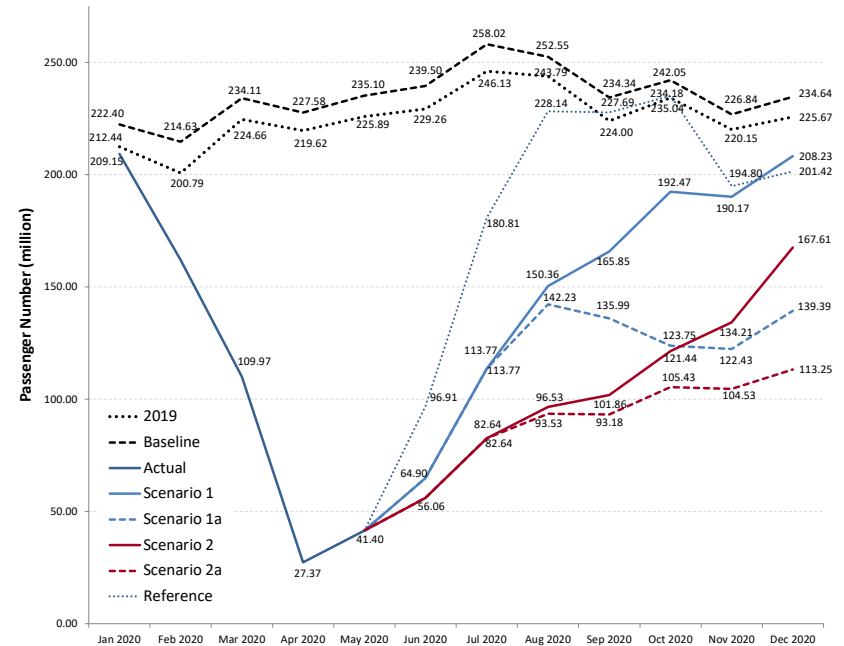
## International

(-1,105 to -1,437 million from Baseline and -1,033 to -1,366 million from 2019)



## Domestic

(-1,186 to -1,623 million from Baseline and -1,071 to -1,508 million from 2019)

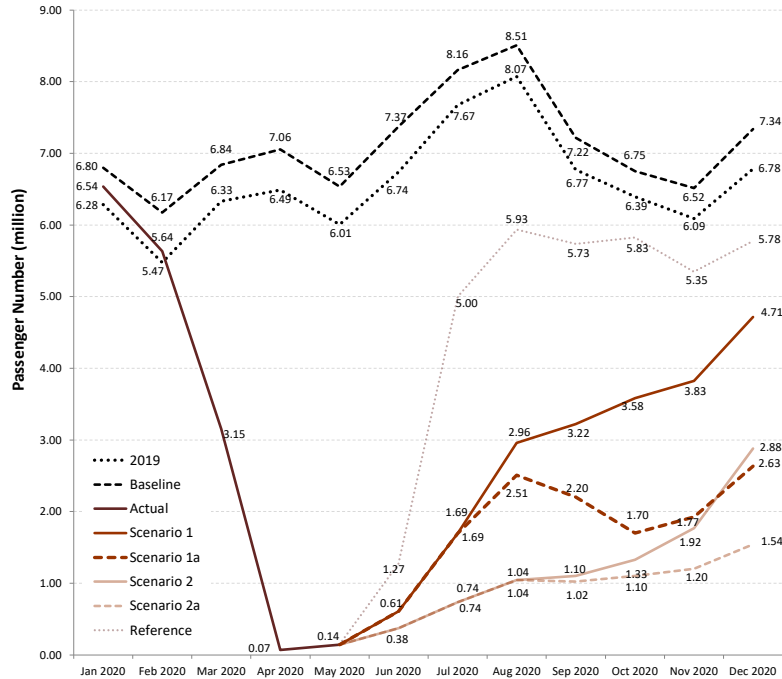




# Scenarios 1 & 2 (Africa): Passenger numbers compared to Baseline & 2019

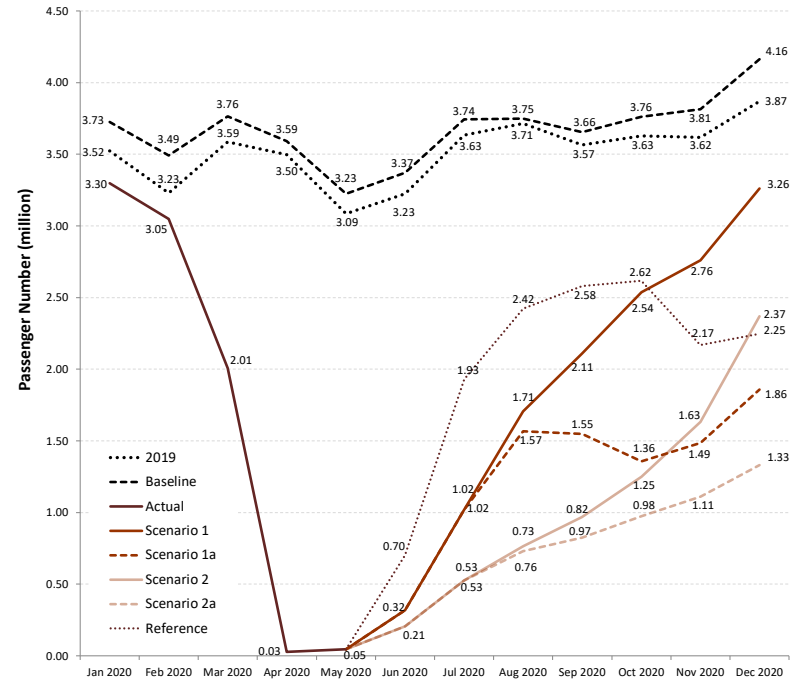
## International

(-49 to -63 million from Baseline and -43 to -57 million from 2019)



## Domestic

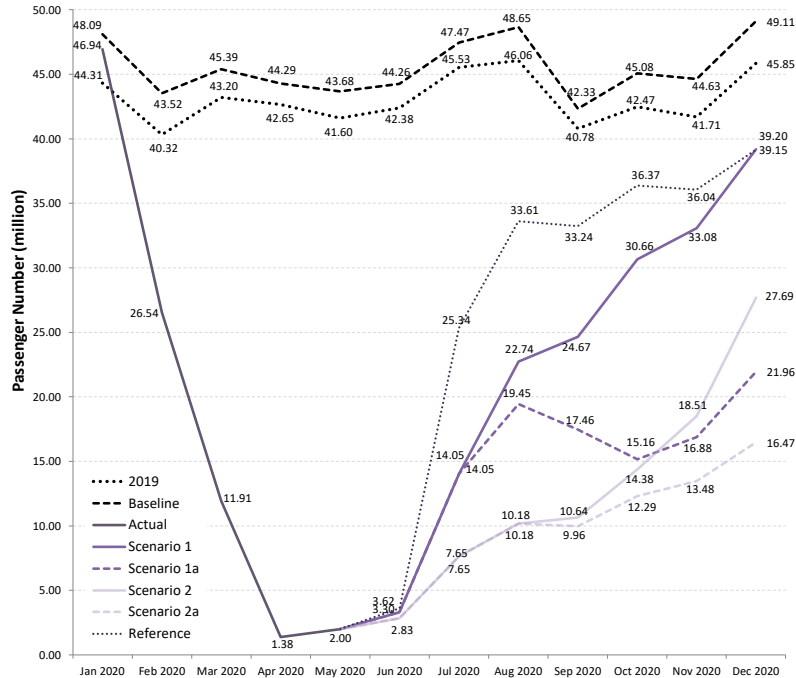
(-22 to -30 million from Baseline and -20 to -28 million from 2019)



# Scenarios 1 & 2 (Asia/Pacific): Passenger numbers compared to Baseline & 2019

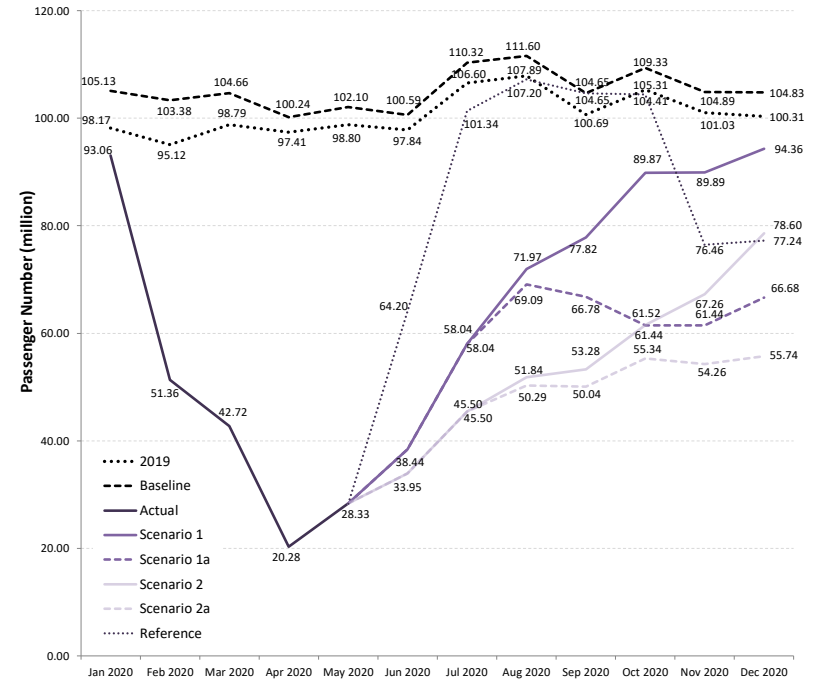
## International

(-290 to -385 million from Baseline and -260 to -355 million from 2019)



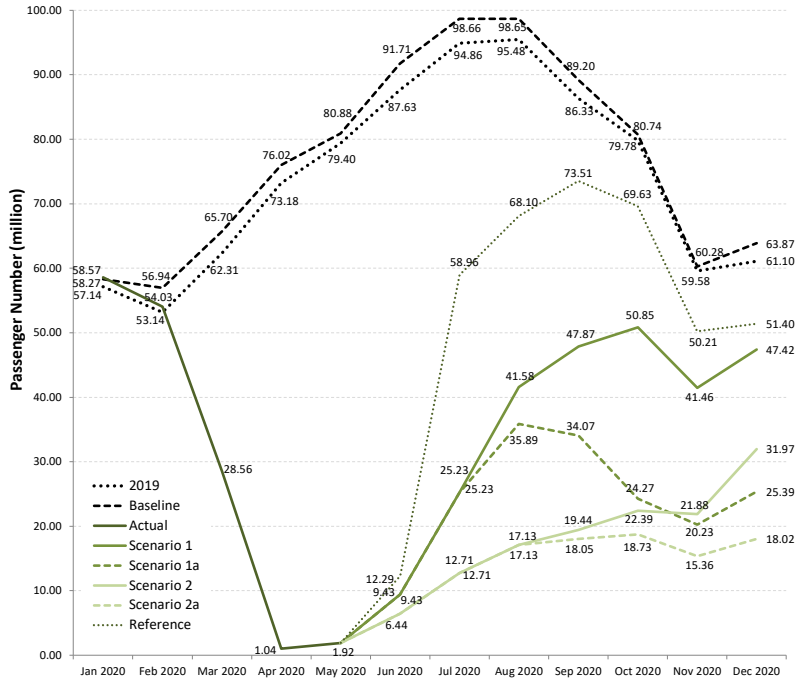
## Domestic

(-506 to -681 million from Baseline and -452 to -627 million from 2019)



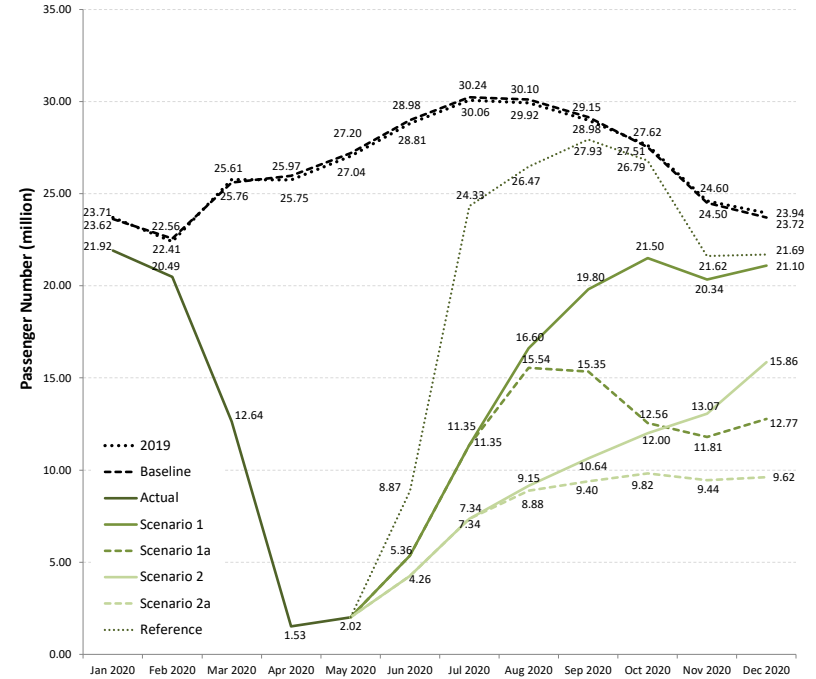
### International

(-513 to -670 million from Baseline and -482 to -639 million from 2019)



### Domestic

(-144 to -202 million from Baseline and -144 to -201 million from 2019)

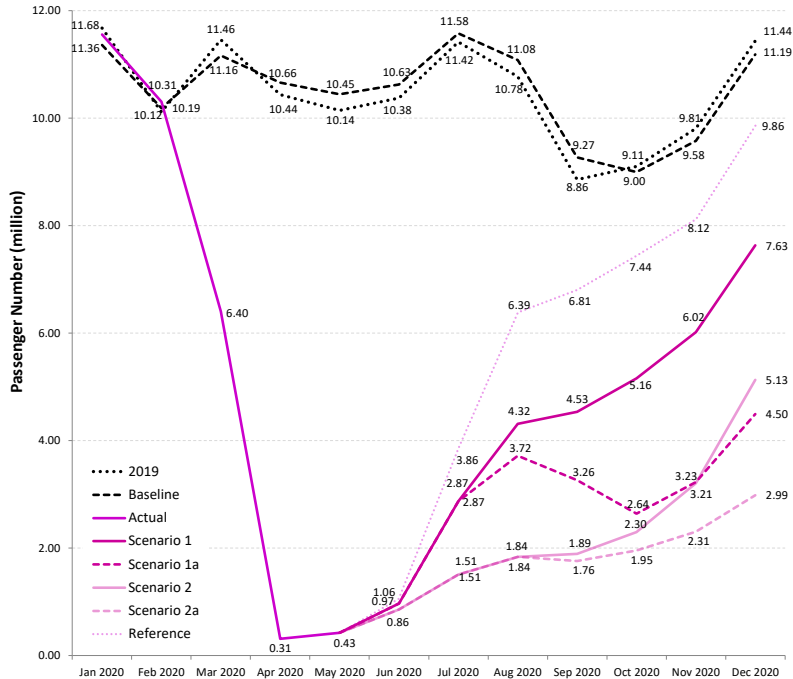




# Scenarios 1 & 2 (Latina America/Caribbean): Passenger numbers compared to Baseline & 2019

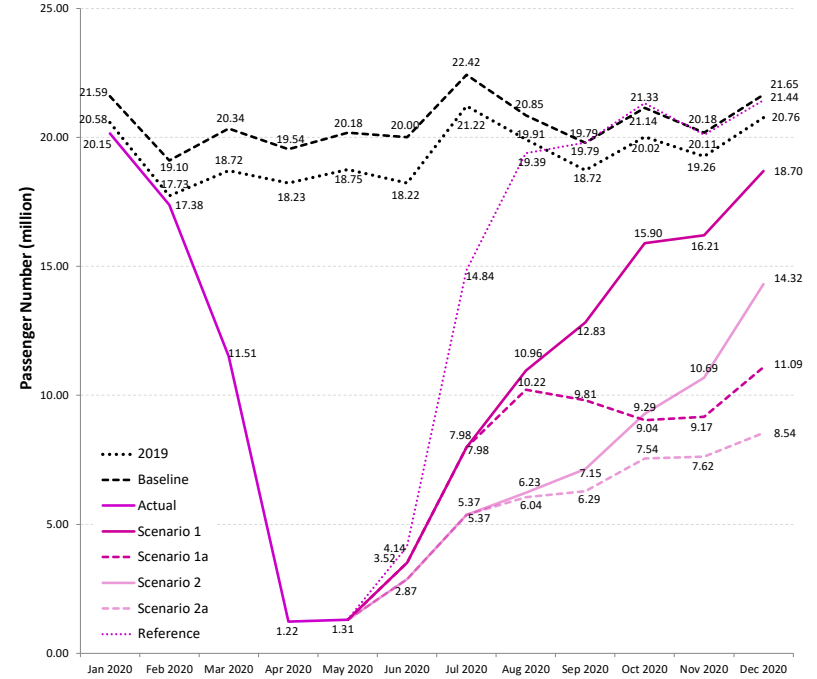
## International

(-66 to -84 million from Baseline and -65 to -83 million from 2019)



## Domestic

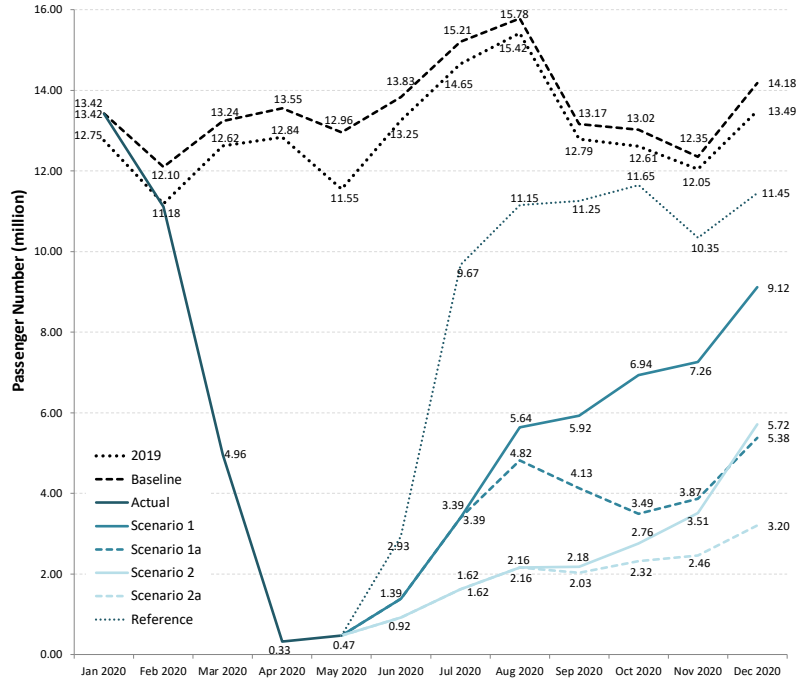
(-109 to -151 million from Baseline and -94 to -136 million from 2019)



# Scenarios 1 & 2 (Middle East): Passenger numbers compared to Baseline & 2019

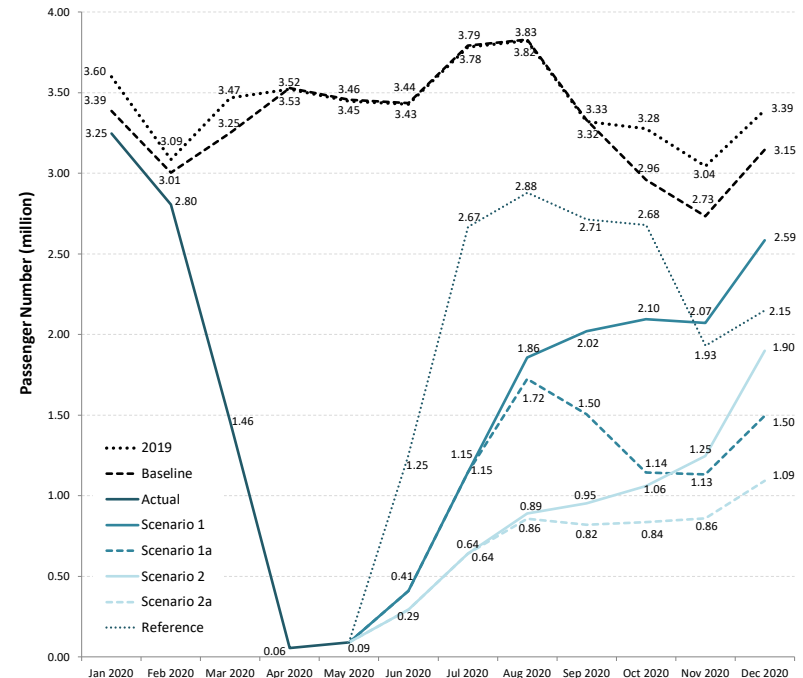
## International

(-93 to -118 million from Baseline and -85 to -110 million from 2019)



## Domestic

(-20 to -27 million from Baseline and -21 to -28 million from 2019)



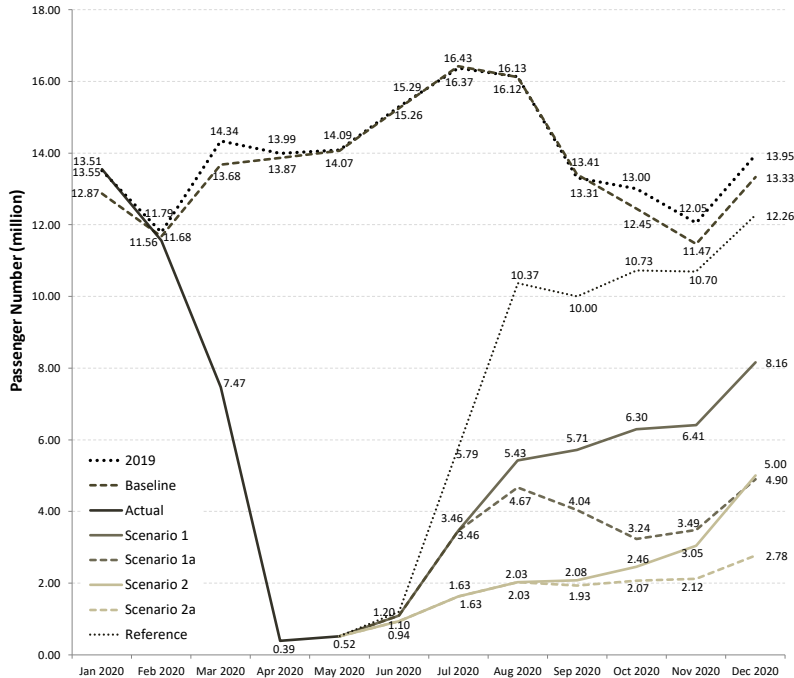




# Scenarios 1 & 2 (North America): Passenger numbers compared to Baseline & 2019

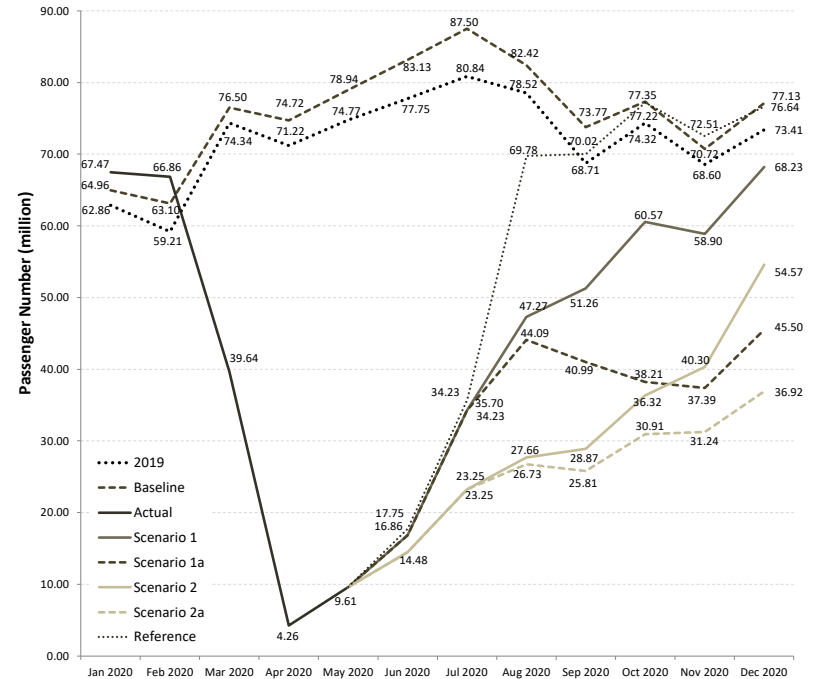
## International

(-95 to -118 million from Baseline and -98 to -121 million from 2019)



## Domestic

(-385 to -533 million from Baseline and -339 to -487 million from 2019)



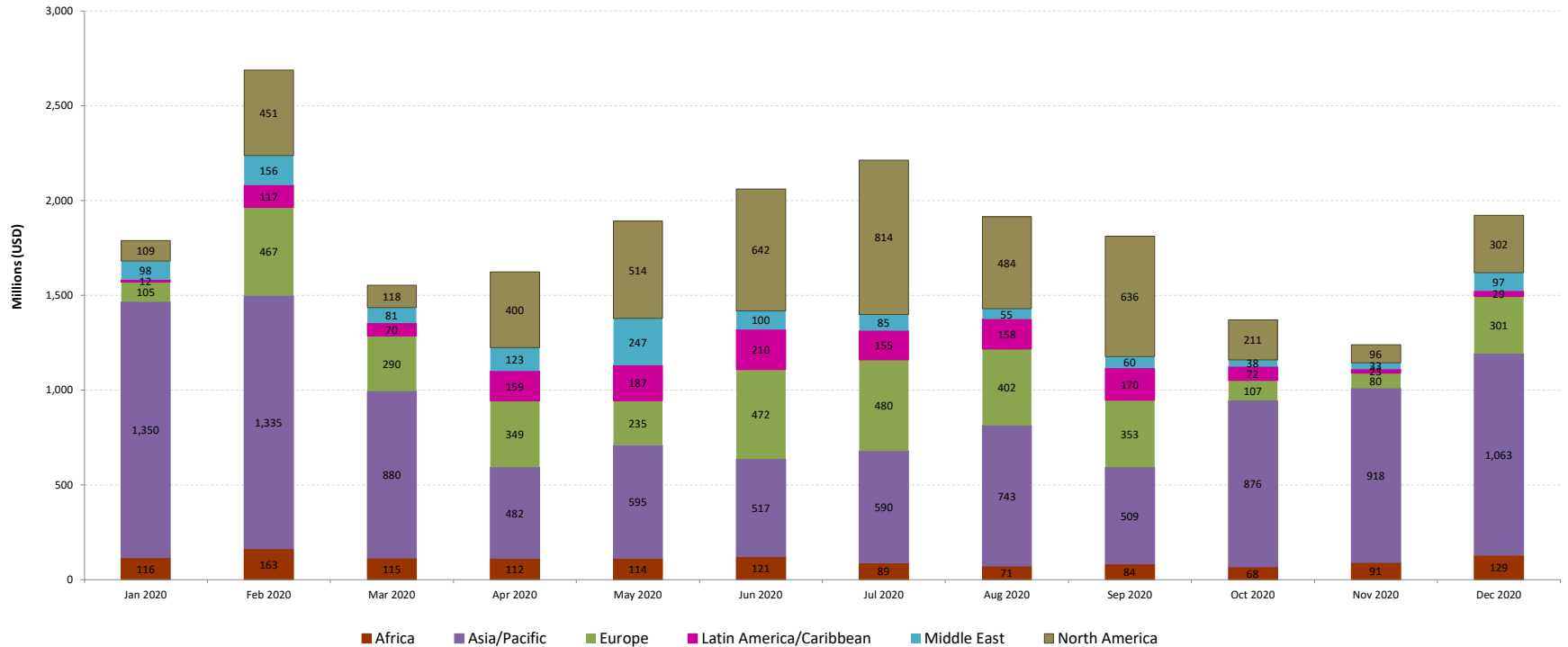


## Impact on Gross Passenger Operating Revenues of Airlines

- With the originally-planned seat capacity and trend line growth of demand, airlines' gross passenger operating revenues could have increased **USD 22 billion** for 2020 (**USD 12 billion** from international and **USD 10 billion** from domestic), compared to 2019.
- According to the latest estimates, airlines' revenues could instead plummet **USD 302 to 400 billion** (international **USD 195 to 254 billion** and domestic **USD 107 to 146 billion**) below the Baseline, or **USD 280 to 378 billion** (international **USD 184 to 243 billion** and domestic **USD 96 to 136 billion**) below the 2019 level.
- Approximately 60% of revenue loss would be recorded by Asia/Pacific and Europe.

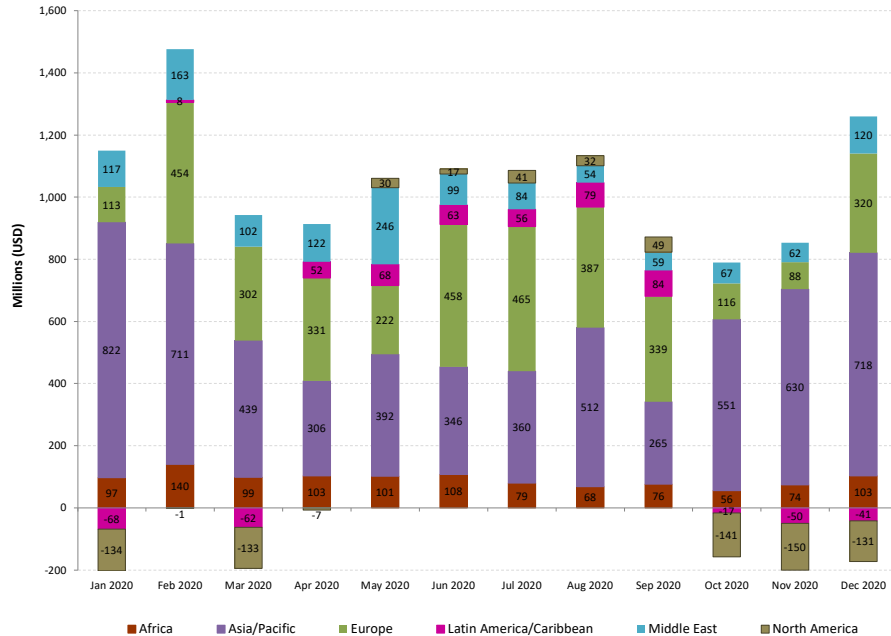


International + Domestic (+22 billion USD)

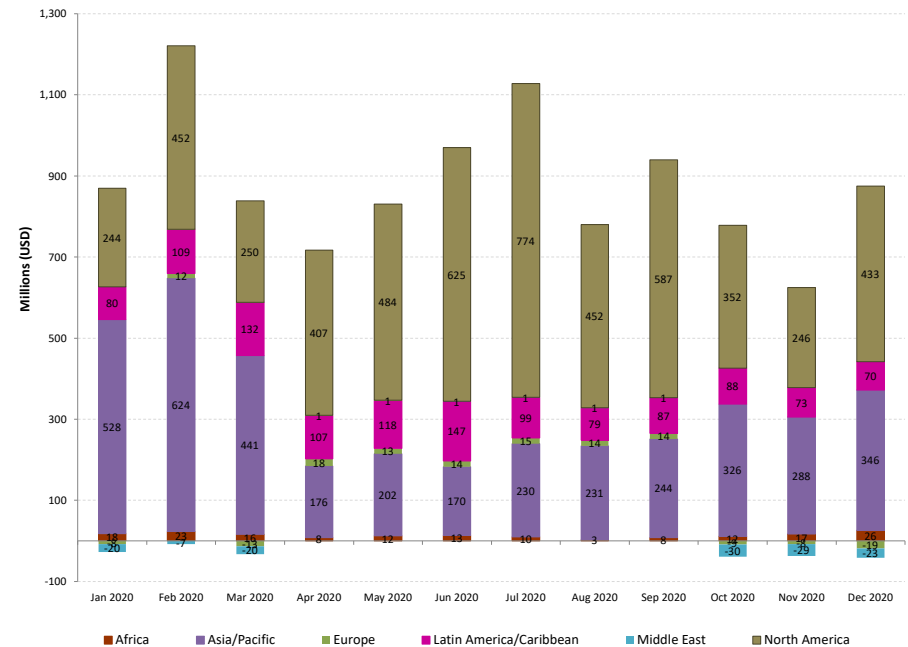




## International (+12 billion USD)



## Domestic (+10 billion USD)



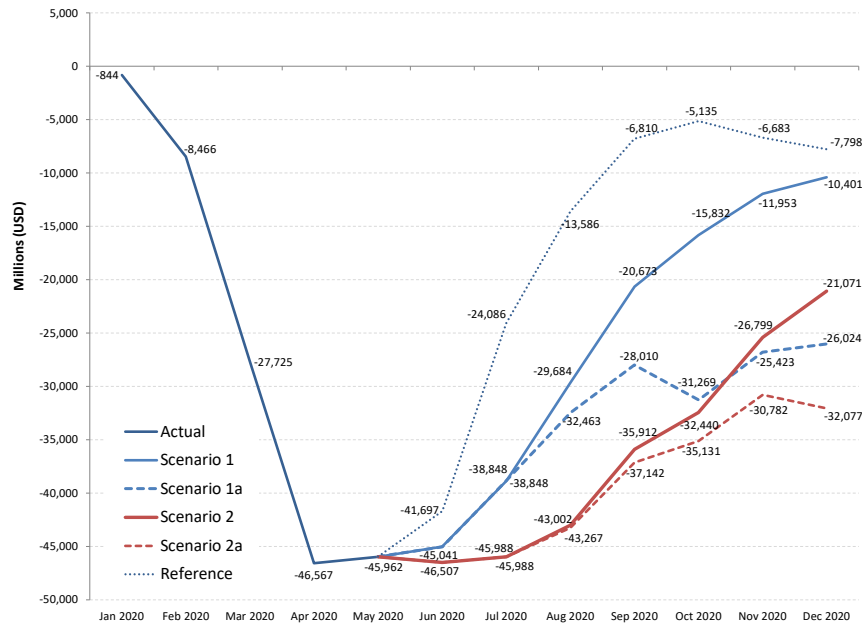
Note: The international revenues are gross passenger operating revenues of all airlines serving international routes from each country and territory, which are aggregated at the regional level (revenues of international routes to each country and territory were removed to avoid double counting).



# Scenarios 1 & 2 (World total): Passenger revenues compared to Baseline & 2019

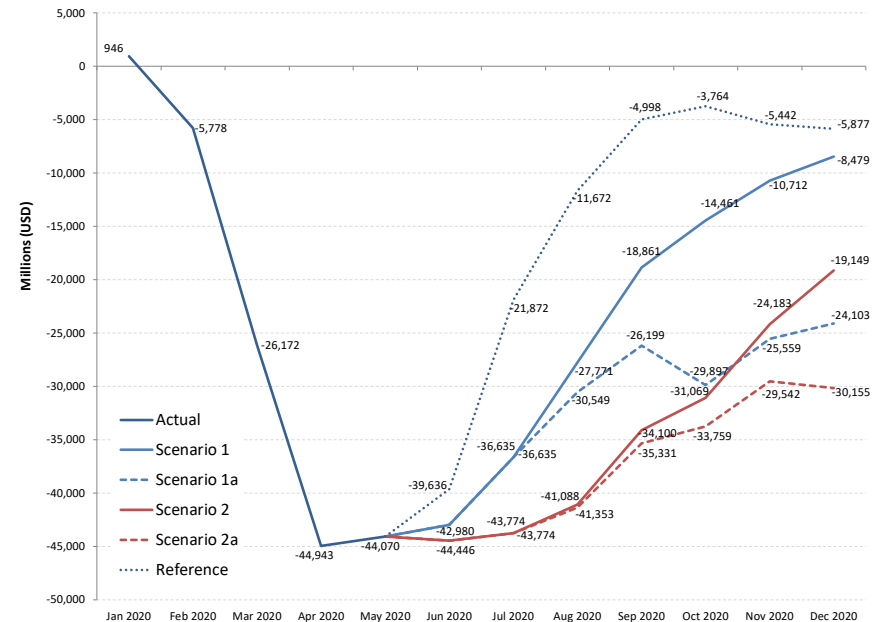
## International + Domestic

(-302 to -400 billion USD from Baseline)



## International + Domestic

(-280 to -378 billion USD from 2019)

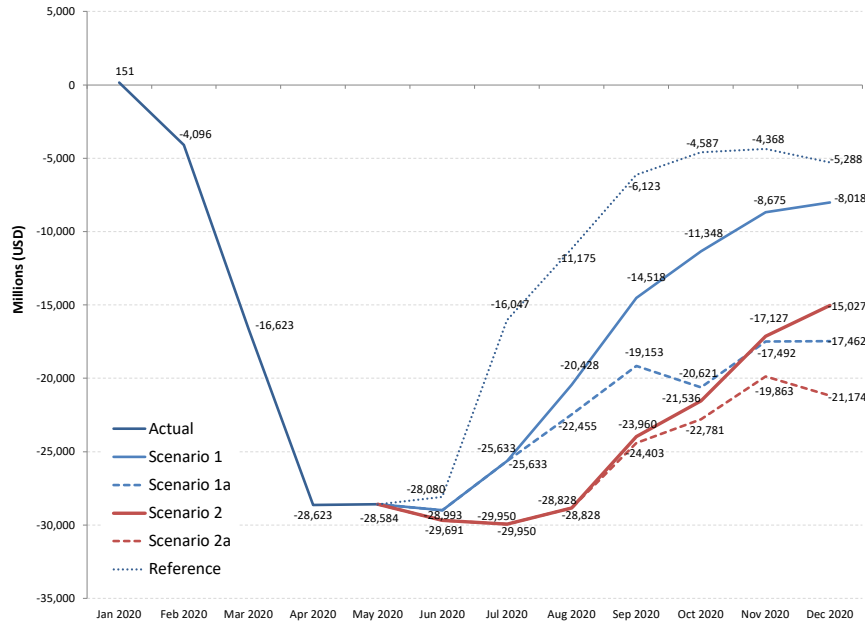




# Scenarios 1 & 2 (World total): Passenger revenues compared to Baseline

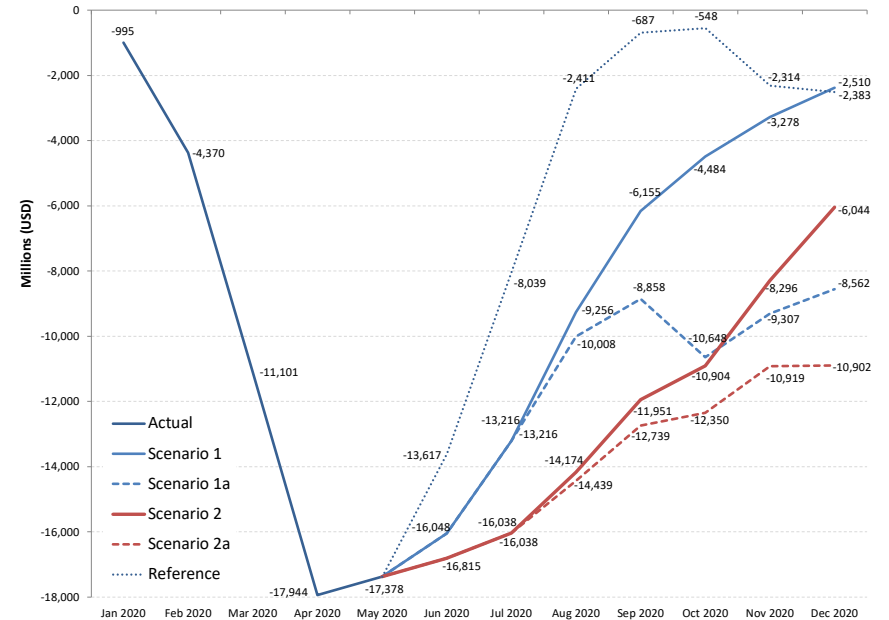
## International

(-195 to -254 billion USD from Baseline)



## Domestic

(-107 to -146 billion USD from Baseline)

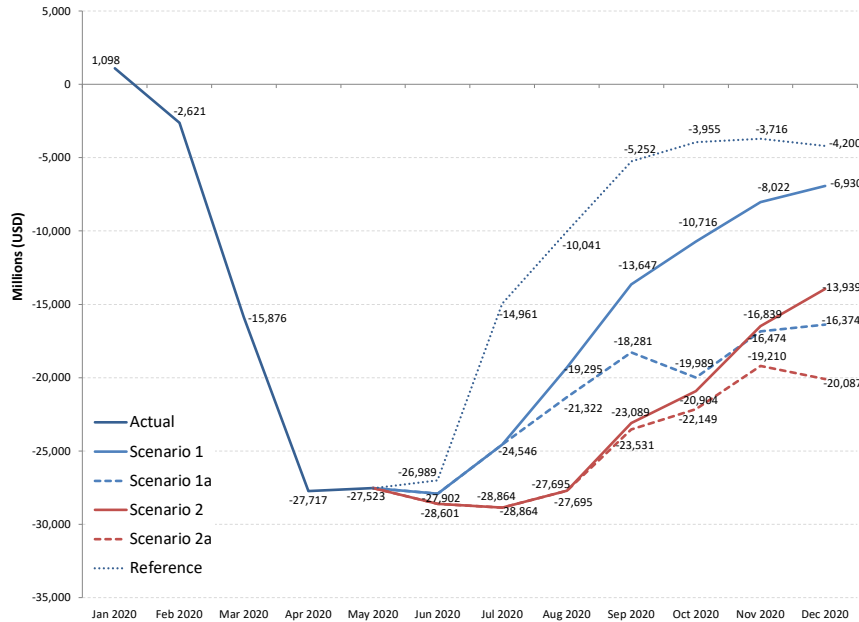




# Scenarios 1 & 2 (World total): Passenger revenues compared to 2019

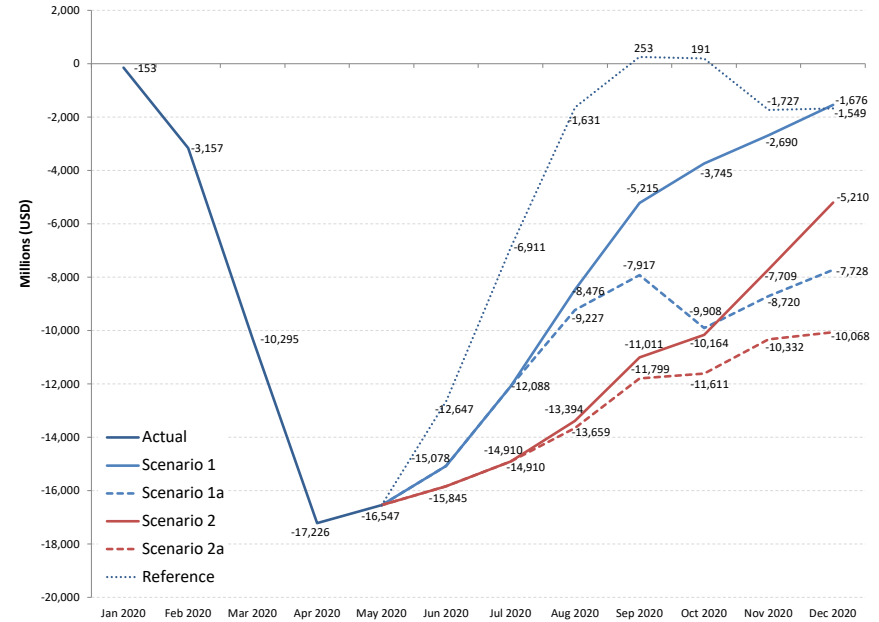
## International

(-184 to -243 billion USD from 2019)



## Domestic

(-96 to -136 billion USD from 2019)

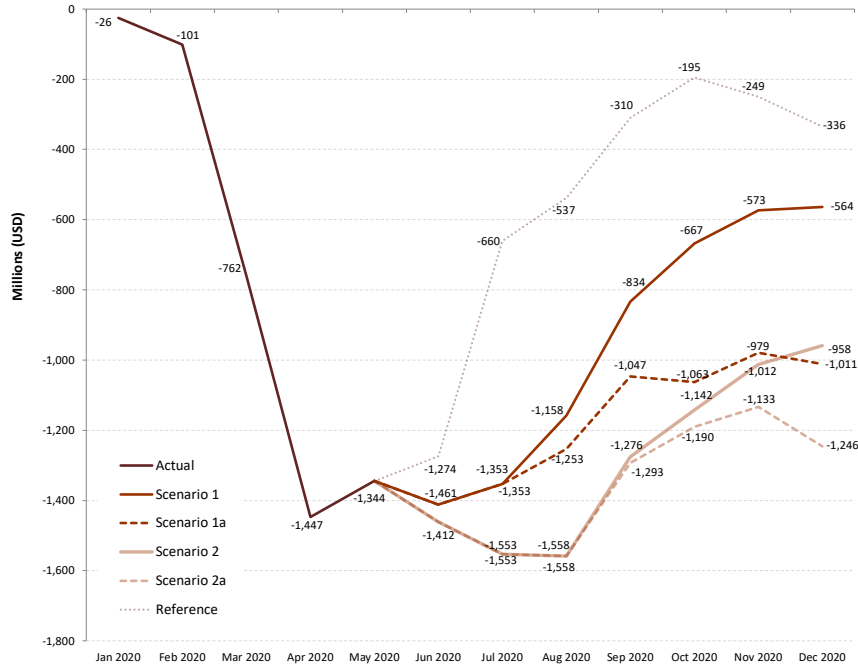




# Scenarios 1 & 2 (Africa): Passenger revenues compared to Baseline

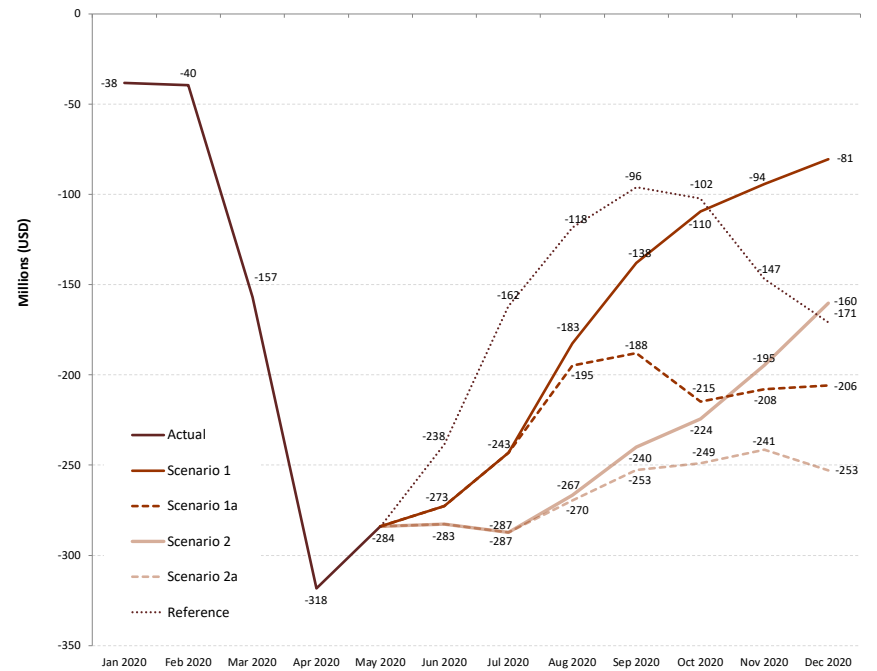
## International

(-10 to -13 billion USD from Baseline)



## Domestic

(-2 to -3 billion USD from Baseline)



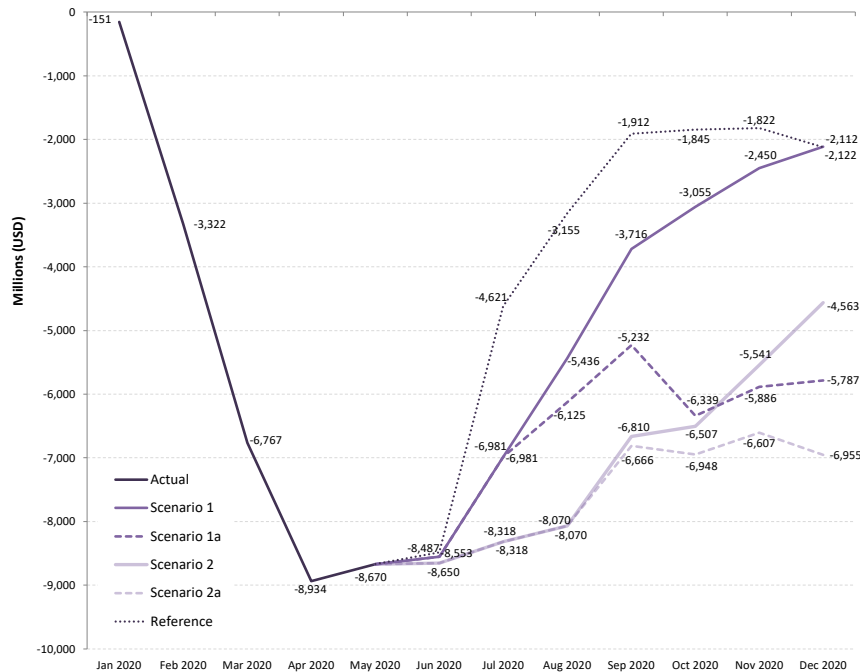




# Scenarios 1 & 2 (Asia/Pacific): Passenger revenues compared to Baseline

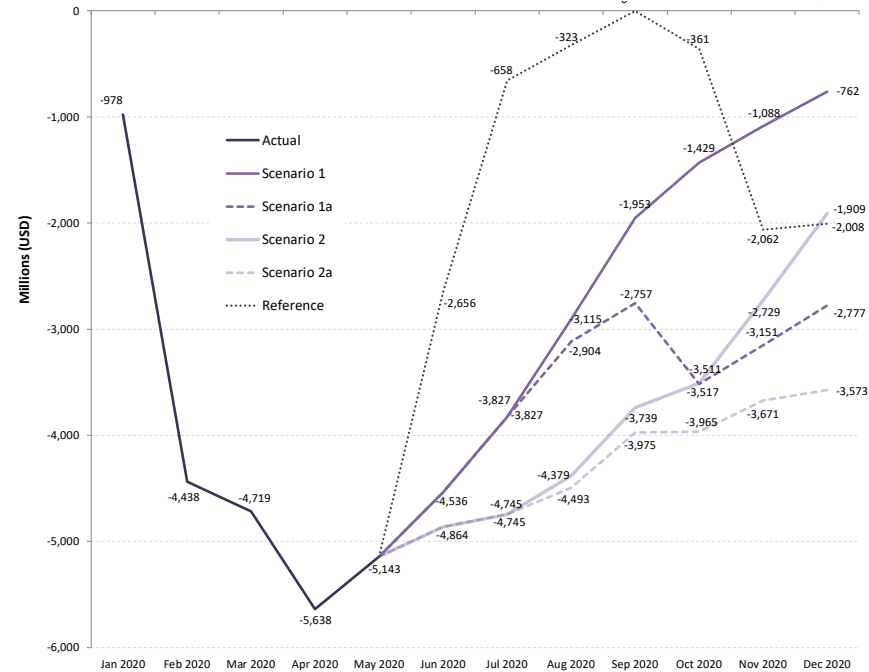
## International

(-60 to -80 billion USD from Baseline)



## Domestic

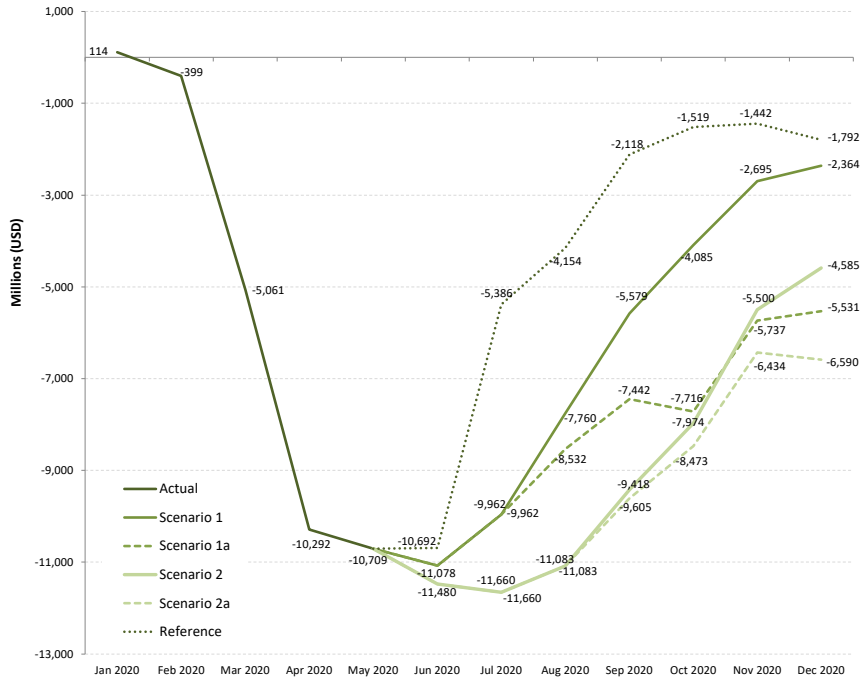
(-37 to -50 billion USD from Baseline)



# Scenarios 1 & 2 (Europe): Passenger revenues compared to Baseline

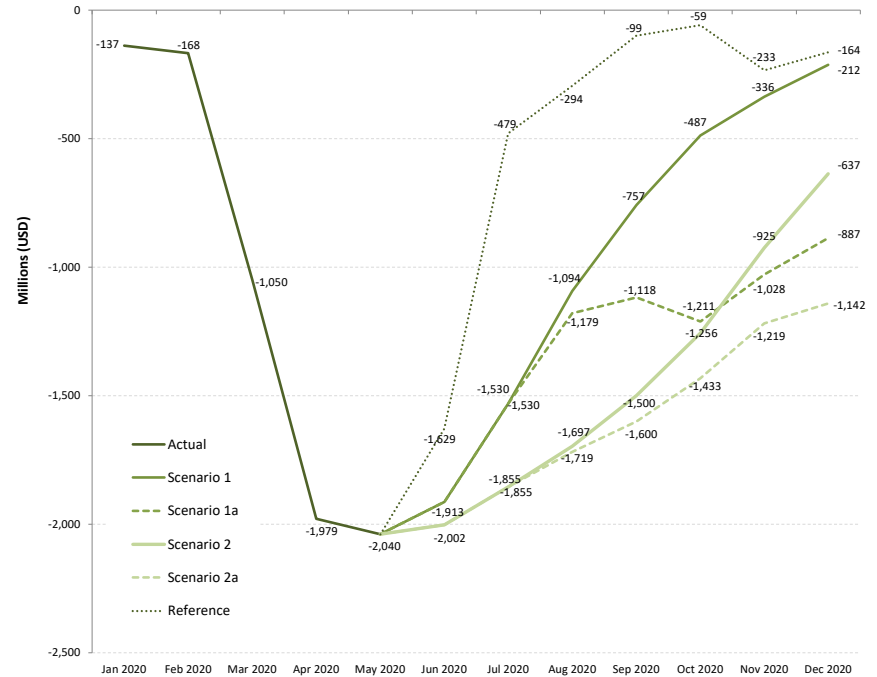
## International

(-70 to -92 billion USD from Baseline)



## Domestic

(-12 to -16 billion USD from Baseline)

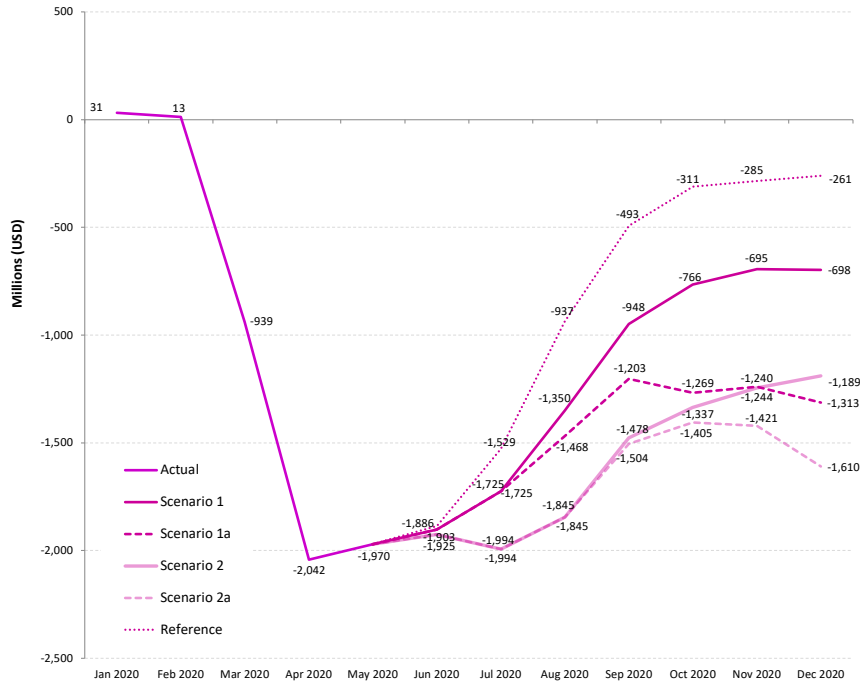




# Scenarios 1 & 2 (Latin America/Caribbean): Passenger revenues compared to Baseline

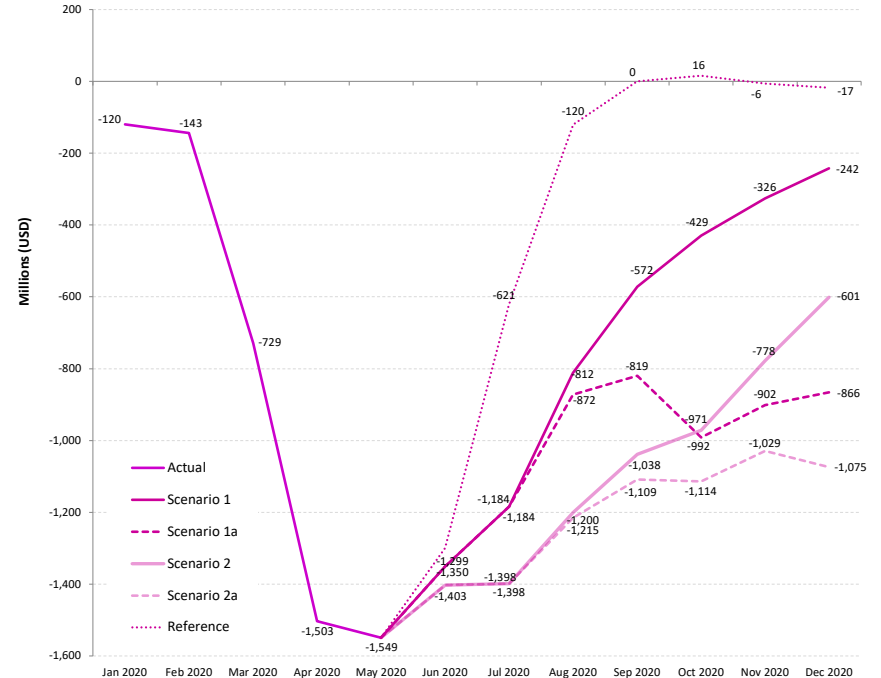
## International

(-13 to -17 billion USD from Baseline)



## Domestic

(-9 to -12 billion USD from Baseline)

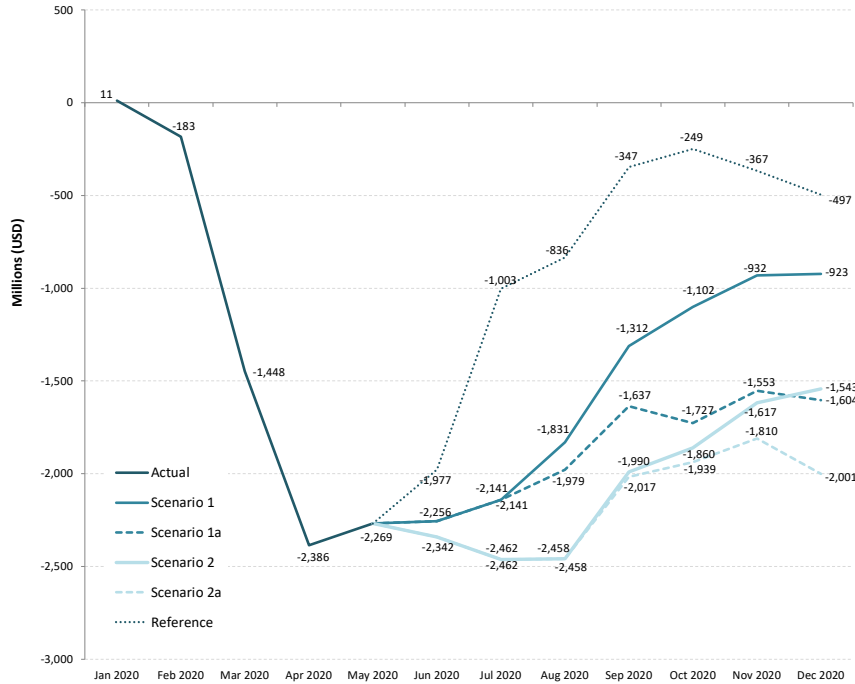




# Scenarios 1 & 2 (Middle East): Passenger revenues compared to Baseline

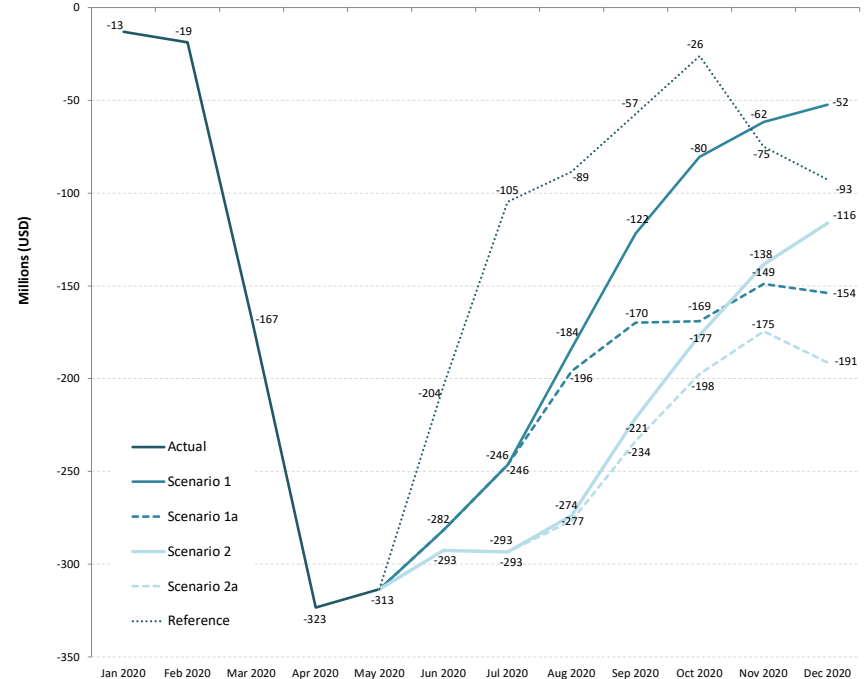
## International

(-17 to -21 billion USD from Baseline)



## Domestic

(-2 to -2 billion USD from Baseline)

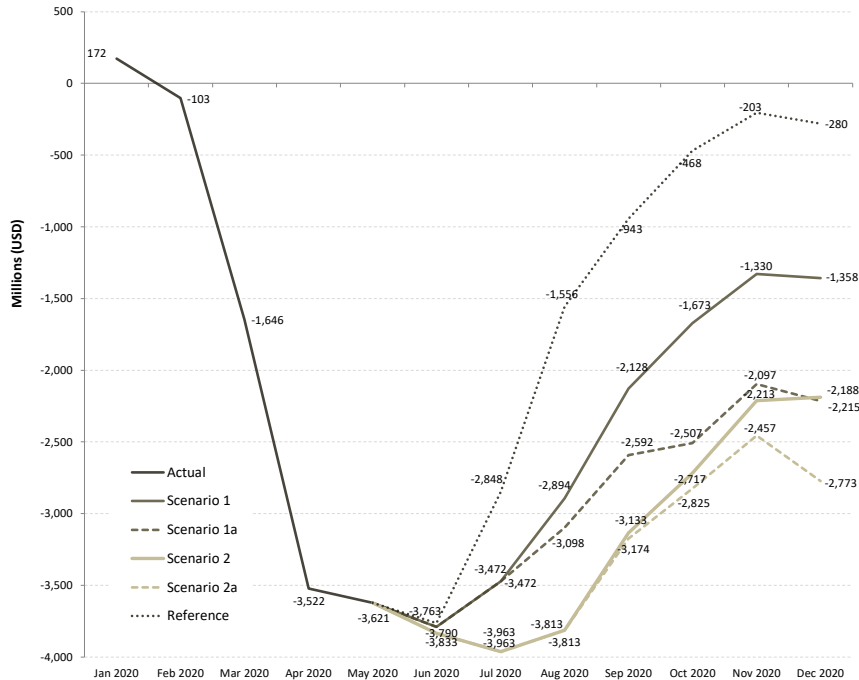




# Scenarios 1 & 2 (North America): Passenger revenues compared to Baseline

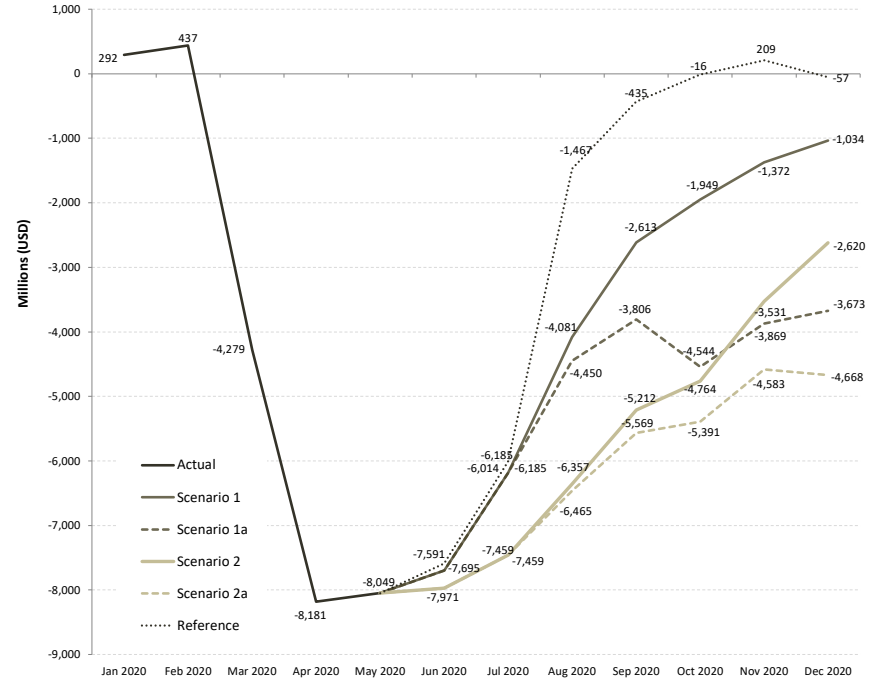
## International

(-25 to -32 billion USD from Baseline)



## Domestic

(-45 to -62 billion USD from Baseline)





## Appendix A: Overview of Early Impact



# COVID-19 outbreak has impacted air traffic of China starting from late January 2020



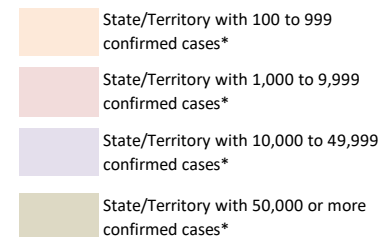
Note: The above includes a) international from mainland China, Hong Kong SAR of China, Macao SAR of China, Taiwan, Province of China; b) domestic within mainland China, and c) regional between mainland China and Hong Kong SAR, Macao SAR and Taiwan Province

# A surge of COVID-19 confirmed cases occurred in several States by late February 2020

January 2020 International passenger seat capacity		
Country/Territory	Capacity change from originally-planned	
Russian Federation	-89,778	-1%
Italy	-65,971	-1%
Turkey	-53,262	-1%
China	-45,484	0%
Morocco	-42,684	-2%
United Arab Emirates	-31,464	0%
Iraq	-29,326	-3%
Albania	-22,080	-7%
United Kingdom	-21,888	0%
South Africa	-21,476	-1%
Iran Islamic Republic of	-20,891	-2%
France	-19,537	0%
Poland	-18,154	0%
Romania	-17,493	-1%
Japan	-16,449	0%
United States	-13,067	0%
Indonesia	-12,114	0%
Bulgaria	-10,540	-1%
India	-10,342	0%
Cambodia	-10,158	-1%
Bahamas	-9,588	-2%
Denmark	-8,942	0%
Viet Nam	-8,489	0%
Malta	-7,372	-1%
Lebanon	-7,182	-1%
Bahrain	-7,123	-1%
Uzbekistan	-6,539	-1%
Tunisia	-6,362	-1%
Switzerland	-6,235	0%
Czechia	-5,642	0%

February 2020 International passenger seat capacity		
Country/Territory	Capacity change from originally-planned	
China	-10,532,219	-61%
Hong Kong SAR of China (CN)	-2,363,320	-36%
Republic of Korea	-1,717,147	-19%
Japan	-1,592,429	-15%
Thailand	-1,452,478	-15%
Taiwan, Province of China (CN)	-1,446,686	-23%
Singapore	-807,608	-12%
Viet Nam	-731,936	-16%
Macao SAR of China (CN)	-721,489	-64%
Philippines	-646,104	-18%
United States	-620,296	-3%
Malaysia	-448,172	-8%
Indonesia	-426,102	-10%
Russian Federation	-317,890	-5%
Cambodia	-307,968	-4%
Turkey	-277,868	-21%
Italy	-268,846	-3%
United Arab Emirates	-253,548	-2%
Australia	-241,284	-5%
United Kingdom	-188,864	-1%
Iran Islamic Republic of	-169,782	-18%
France	-157,998	-1%
Myanmar	-147,487	-21%
Germany	-145,561	-1%
India	-116,823	-2%
Morocco	-108,186	-5%
Qatar	-99,338	-2%
Canada	-96,231	-1%
Lao People's Democratic Republi	-71,910	-21%
Finland	-71,413	-4%

In February 2020, international passenger capacity reduced by 10%, mainly related to traffic from/to States experiencing an early outbreak and States deeply interconnected to China.



\*: Coronavirus Disease 2019 (COVID-19) Situation Report by WHO (29 February 2020)



# COVID-19 Pandemic was declared and accelerating in March 2020

## March 2020 International Passenger Capacity

Country/Territory	Capacity change from originally-planned	
China	-14,841,792	-82%
Italy	-6,860,837	-60%
Republic of Korea	-6,536,917	-70%
Japan	-5,837,894	-51%
Germany	-5,771,162	-31%
Hong Kong SAR of China (CN)	-5,352,855	-77%
United Kingdom	-4,965,296	-22%
United States	-4,950,969	-19%
Thailand	-4,587,421	-46%
Taiwan, Province of China (CN)	-4,074,431	-62%
Spain	-3,792,140	-26%
United Arab Emirates	-3,400,833	-26%
Singapore	-3,297,434	-45%
France	-3,216,482	-25%
Turkey	-2,879,271	-35%
Viet Nam	-2,599,336	-55%
Malaysia	-2,500,355	-42%
India	-2,077,578	-29%
Saudi Arabia	-1,747,385	-31%
Switzerland	-1,691,017	-28%

Country/Territory	Capacity change from originally-planned	
Philippines	-1,669,456	-45%
Indonesia	-1,466,518	-34%
Netherlands	-1,292,472	-17%
Canada	-1,218,383	-16%
Austria	-1,200,864	-30%
Russian Federation	-1,177,704	-19%
Australia	-1,119,345	-25%
Portugal	-1,118,941	-26%
Belgium	-1,060,572	-31%
Qatar	-1,041,439	-21%
Denmark	-980,211	-28%
Israel	-972,061	-44%
Poland	-967,520	-24%
Macao SAR of China (CN)	-954,453	-80%
Egypt	-818,043	-28%
Morocco	-762,145	-31%
Sweden	-761,425	-24%
Ireland	-733,678	-21%
Greece	-635,039	-34%
Czechia	-610,048	-37%

In March 2020, global international passenger capacity **reduced by 48%**, with significant reduction not only in States experiencing an early outbreak but also worldwide.

- State/Territory with 100 to 999 confirmed cases\*
- State/Territory with 1,000 to 9,999 confirmed cases\*
- State/Territory with 10,000 to 49,999 confirmed cases\*
- State/Territory with 50,000 or more confirmed cases\*

\*: Coronavirus Disease 2019 (COVID-19) Situation Report by WHO (31 March 2020)



# The world reached 3 million confirmed COVID-19 cases in April 2020

## April 2020 International Passenger Capacity

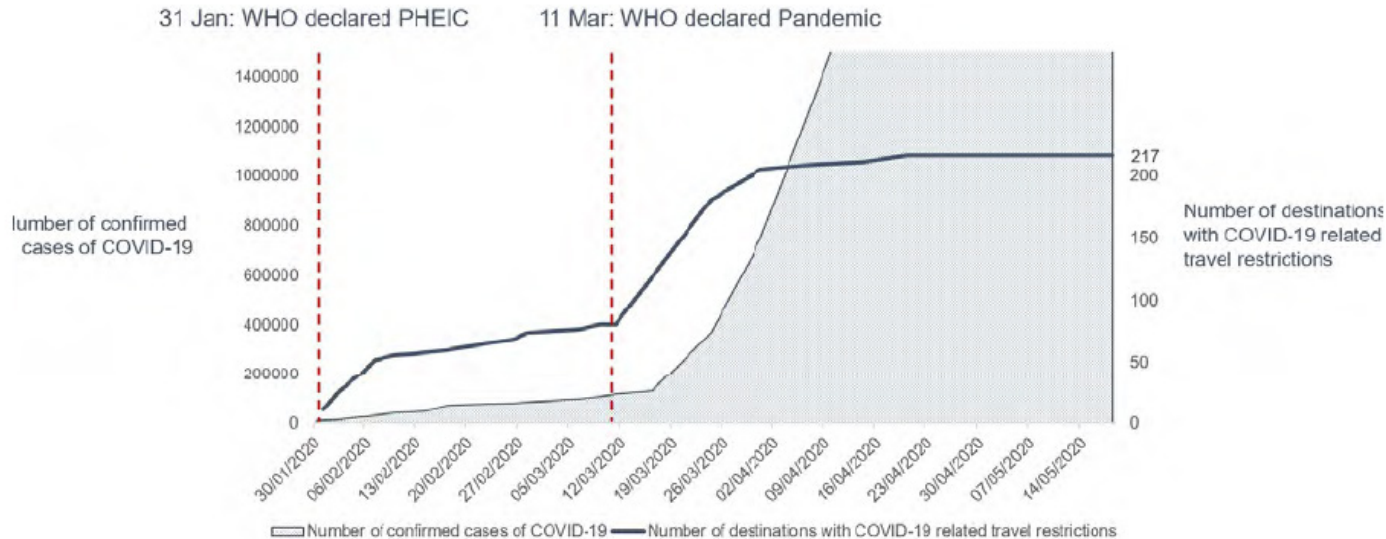
Country/Territory	Capacity change from originally-planned	Country/Territory	Capacity change from originally-planned
United States	-22,976,621 -88%	Malaysia	-4,959,606 -85%
United Kingdom	-22,345,210 -90%	Portugal	-4,913,803 -95%
Germany	-19,374,444 -92%	Saudi Arabia	-4,193,572 -77%
Spain	-18,041,897 -94%	Australia	-4,115,805 -92%
China	-16,683,876 -95%	Mexico	-4,104,882 -78%
France	-13,480,021 -91%	Austria	-3,812,866 -91%
Italy	-12,464,502 -94%	Qatar	-3,760,492 -80%
United Arab Emirates	-11,009,896 -89%	Indonesia	-3,723,583 -87%
Japan	-9,501,833 -88%	Viet Nam	-3,681,731 -89%
Turkey	-8,798,224 -94%	Ireland	-3,595,318 -92%
Thailand	-8,441,105 -94%	Poland	-3,449,632 -79%
Republic of Korea	-7,960,525 -86%	Denmark	-3,417,729 -93%
Hong Kong SAR of China (CN)	-7,122,206 -93%	Belgium	-3,323,135 -87%
Netherlands	-6,960,693 -89%	Greece	-3,078,774 -94%
Singapore	-6,596,279 -93%	Philippines	-2,993,741 -86%
Canada	-6,288,656 -90%	Sweden	-2,941,579 -89%
India	-6,286,458 -89%	Norway	-2,476,519 -90%
Switzerland	-5,990,424 -93%	Egypt	-2,248,437 -78%
Russian Federation	-5,747,918 -87%	Brazil	-2,214,850 -92%
Taiwan, Province of China (CN)	-5,400,277 -85%	Israel	-2,196,238 -91%

In April 2020, global international passenger capacity so far experienced by **unprecedented 94% reduction** (estimated)

- State/Territory with 100 to 999 confirmed cases\*
- State/Territory with 1,000 to 9,999 confirmed cases\*
- State/Territory with 10,000 to 49,999 confirmed cases\*
- State/Territory with 50,000 or more confirmed cases\*

\*: Coronavirus Disease 2019 (COVID-19) Situation Report by WHO (30 April 2020)

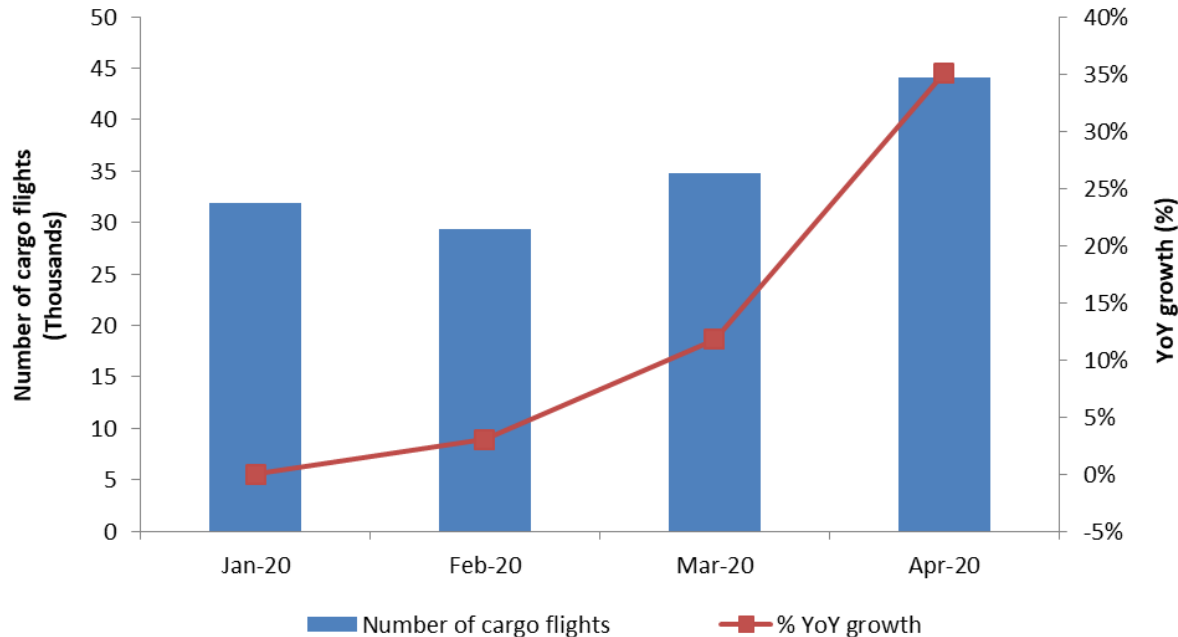
## Number of confirmed cases and destinations with COVID-19-related travel restrictions



As of 18 May 2020, 100% of all world destinations have travel restrictions. About 185 (85%) destinations have completely or partially closed their borders, while 11 destinations (5%) have suspended completely or partially international flights.

<https://www.unwto.org/news/covid-19-response-travel-restrictions>

**In contrast to the fall in passenger traffic, cargo flights surged with the increased cargo-only operations using passenger aircraft**





## Appendix B: Scenario Assumptions in Detail

(International and domestic)	Baseline (Originally-planned, business as usual)	
	Seat capacity	Passenger load factor
January 2020	Airlines' winter schedules filed with OAG as of 6 January 2020	Forecasted 2020 load factor by region/route group, based on ICAO long-term traffic forecasts (LTF), which was adjusted monthly by difference between 2019 actual monthly results (ICAO, IATA) and 2019 LTF forecasted load factor
February 2020		
March 2020		
April 2020		
May 2020		
June 2020	Maximum number of seats taken from airlines' summer schedules filed with OAG during the period from 6 January 2020 to 20 April 2020	
July 2020		
August 2020		
September 2020		
October 2020	Using 2019 winter schedule as the base, and applying the growth rate of 2019/2018	
November 2020		
December 2020		

(International and domestic)	Scenarios 1/1a, 2/2a and Reference	
	Seat capacity	Passenger load factor
January 2020	Actual capacity based on ICAO ADS-B data	Actual estimated results by region/route group
February 2020		
March 2020		
April 2020		
May 2020		42 percentage points (international) and 31 percentage points (domestic) lower than Baseline with adjustment of GDP impact by region/route group
June 2020	Scenarios 1/1a & 2/2a: Application of monthly "base percentage" which incorporates impacts of intra-/inter-regional share difference (2019), or most recent airlines' schedules filed with OAG, whichever is smaller	Application of "base percentage" which incorporates GDP impact by region/route group
July 2020		
August 2020		
September 2020		
October 2020	Scenarios 1/1a & 2/2a: Application of monthly "base percentage" which incorporates impacts of intra-/inter-regional share difference (2019)	
November 2020		
December 2020	Reference: Most recent airlines' schedules filed with OAG	

### International (world average)

Seat capacity	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reference	-82%	-32%	-21%	-10%	-8%	-11%	-14%
Scenario 1	-85%	-66%	-50%	-39%	-30%	-25%	-20%
Scenario 1a	-85%	-66%	-50%	-46%	-58%	-55%	-50%
Scenario 2	-87%	-77%	-71%	-65%	-58%	-50%	-40%
Scenario 2a	-87%	-77%	-71%	-67%	-64%	-63%	-61%

Load factor	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reference	-28%	-16%	-12%	-8%	-6%	-5%	-4%
Scenario 1	-32%	-21%	-15%	-11%	-9%	-8%	-7%
Scenario 1a	-32%	-21%	-25%	-25%	-23%	-19%	-15%
Scenario 2	-40%	-37%	-35%	-32%	-28%	-22%	-15%
Scenario 2a	-40%	-37%	-35%	-32%	-29%	-25%	-22%

### Domestic (world average)

Seat capacity	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reference	-48%	-19%	0%	3%	0%	-12%	-13%
Scenario 1	-63%	-47%	-32%	-22%	-15%	-11%	-6%
Scenario 1a	-63%	-47%	-32%	-28%	-40%	-38%	-33%
Scenario 2	-65%	-55%	-49%	-43%	-37%	-30%	-20%
Scenario 2a	-65%	-55%	-49%	-46%	-43%	-41%	-40%

Load factor	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reference	-19%	-12%	-8%	-4%	-3%	-2%	-1%
Scenario 1	-23%	-15%	-11%	-8%	-6%	-5%	-4%
Scenario 1a	-23%	-15%	-15%	-16%	-12%	-11%	-9%
Scenario 2	-28%	-25%	-21%	-19%	-17%	-13%	-9%
Scenario 2a	-28%	-25%	-23%	-22%	-20%	-18%	-17%

- Base percentages of seat capacity already take into consideration short-/long-haul (intra-/inter-region) impacts and will be applied to Baseline level of seat capacity
- Base percentages of load factor already take into consideration economic (GDP) factors and will be added to 2019 load factor %



- **Seat capacity (Baseline):** OAG airlines schedule data; Route Online; and airline websites
- **Seat capacity (actual):** ICAO ADS-B operational data
- **Load factor:** ICAO long-term traffic forecasts (LTF); ICAO statistical reporting forms; IATA economics data; and airline news release
- **Historical passenger traffic:** ICAO Annual Report of the Council; and ICAO statistical reporting forms
- **Yield:** ICAO revenue-cost analysis of airlines (RCA); and ICAO-ICM Marketing Information Data Transfer (MIDT passenger origin-destination)
- **Macroeconomic factors:** Income elasticity of demand estimated for ICAO LTF; and IMF economic outlook data

Note 1: A list of route group is shown in **Appendix D**.

Note 2: Average air fares (i.e. passenger yield multiplied by average trip distance) for each region/route group are used to estimate gross passenger operating revenues.





## Appendix C: Summary of Key Impact Indicators

Figures and estimates herein are **subject to substantial changes**, and will be updated with the situation evolving and more information available.

## Baseline

Compared to 2019 (year-on-year)	Baseline (Originally-planned or business as usual)		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	6.4%	8.03	1.27
Asia/Pacific	4.3%	83.39	9.86
Europe	1.9%	31.52	3.64
Latin America/Caribbean	3.6%	15.18	1.36
Middle East	2.9%	6.26	1.17
North America	3.7%	42.48	4.78
<b>Total</b>	<b>3.5%</b>	<b>186.86</b>	<b>22.08</b>

Compared to 2019 (year-on-year)	Baseline (Originally-planned or business as usual)		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	3.7%	15.10	1.79
February 2020	6.2%	22.41	2.69
March 2020	3.5%	15.19	1.55
April 2020	3.1%	13.82	1.62
May 2020	3.4%	14.99	1.89
June 2020	3.8%	17.63	2.06
July 2020	3.8%	18.88	2.21
August 2020	3.1%	15.61	1.91
September 2020	3.6%	16.09	1.81
October 2020	2.4%	11.54	1.37
November 2020	2.3%	10.22	1.24
December 2020	3.5%	15.38	1.92
<b>Total</b>	<b>3.5%</b>	<b>186.86</b>	<b>22.08</b>

## Reference

	Reference (compared to Baseline)			Reference (compared to 2019)		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-35.6%	-55.79	-9.11	-31.4%	-47.76	-7.84
Asia/Pacific	-28.5%	-640.81	-80.79	-25.4%	-557.41	-70.93
Europe	-32.8%	-495.57	-61.78	-31.5%	-464.05	-58.14
Latin America/Caribbean	-30.1%	-127.78	-16.70	-27.6%	-112.60	-15.34
Middle East	-32.3%	-79.99	-13.03	-30.4%	-73.73	-11.86
North America	-24.2%	-372.85	-53.93	-21.4%	-330.37	-49.16
<b>Total</b>	<b>-29.2%</b>	<b>-1,772.79</b>	<b>-235.36</b>	<b>-26.7%</b>	<b>-1,585.92</b>	<b>-213.28</b>

	Reference (compared to Baseline)			Reference (compared to 2019)		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-3.6%	-13.49	-0.84	-0.1%	1.61	0.95
February 2020	-15.9%	-74.10	-8.47	-10.6%	-51.69	-5.78
March 2020	-39.0%	-217.69	-27.72	-36.9%	-202.50	-26.17
April 2020	-82.3%	-362.14	-46.57	-81.7%	-348.31	-44.94
May 2020	-81.0%	-356.79	-45.96	-80.3%	-341.80	-44.07
June 2020	-62.5%	-303.29	-41.70	-61.1%	-285.66	-39.64
July 2020	-24.6%	-166.08	-24.09	-21.7%	-147.20	-21.87
August 2020	-9.2%	-87.65	-13.59	-6.4%	-72.04	-11.67
September 2020	-2.8%	-40.70	-6.81	0.7%	-24.61	-5.00
October 2020	-3.3%	-32.41	-5.14	-1.0%	-20.88	-3.76
November 2020	-11.5%	-56.10	-6.68	-9.5%	-45.88	-5.44
December 2020	-13.5%	-62.33	-7.80	-10.4%	-46.96	-5.88
<b>Total</b>	<b>-29.2%</b>	<b>-1,772.79</b>	<b>-235.36</b>	<b>-26.7%</b>	<b>-1,585.92</b>	<b>-213.28</b>



# Estimated results: Scenario 1 (World total)

Compared to Baseline (business as usual)	Scenario 1 Path 1			Scenario 1 Path 1a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-47.9%	-71.03	-12.20	-55.5%	-82.92	-14.16
Asia/Pacific	-36.4%	-795.61	-97.56	-43.5%	-953.52	-117.34
Europe	-46.0%	-657.46	-81.57	-54.0%	-778.10	-96.58
Latin America/Caribbean	-42.2%	-174.73	-21.95	-50.2%	-210.31	-26.06
Middle East	-49.5%	-112.87	-18.64	-56.1%	-129.69	-21.37
North America	-33.5%	-479.64	-70.07	-40.4%	-571.37	-82.49
<b>Total</b>	<b>-39.6%</b>	<b>-2,291.34</b>	<b>-302.00</b>	<b>-46.9%</b>	<b>-2,725.91</b>	<b>-358.02</b>

Compared to Baseline (business as usual)	Scenario 1 Path 1			Scenario 1 Path 1a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-3.6%	-13.49	-0.84	-3.6%	-13.49	-0.84
February 2020	-15.9%	-74.10	-8.47	-15.9%	-74.10	-8.47
March 2020	-39.0%	-217.69	-27.72	-39.0%	-217.69	-27.72
April 2020	-82.3%	-362.14	-46.57	-82.3%	-362.14	-46.57
May 2020	-81.0%	-356.79	-45.96	-81.0%	-356.79	-45.96
June 2020	-72.6%	-340.86	-45.04	-72.6%	-340.86	-45.04
July 2020	-54.9%	-291.05	-38.85	-54.9%	-291.05	-38.85
August 2020	-39.5%	-218.32	-29.68	-39.5%	-218.32	-29.68
September 2020	-29.3%	-151.16	-20.67	-35.9%	-207.78	-28.01
October 2020	-21.3%	-113.13	-15.83	-47.4%	-234.83	-31.27
November 2020	-16.3%	-83.42	-11.95	-45.0%	-199.61	-26.80
December 2020	-12.0%	-69.17	-10.40	-40.1%	-189.52	-26.02
<b>Total</b>	<b>-39.6%</b>	<b>-2,291.34</b>	<b>-302.00</b>	<b>-46.9%</b>	<b>-2,725.91</b>	<b>-358.02</b>

Compared to 2019 (year-on-year)	Scenario 1 Path 1			Scenario 1 Path 1a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-44.5%	-63.00	-10.93	-52.7%	-74.89	-12.89
Asia/Pacific	-33.7%	-712.21	-87.71	-41.0%	-870.13	-107.49
Europe	-45.0%	-625.94	-77.93	-53.1%	-746.58	-92.95
Latin America/Caribbean	-40.1%	-159.56	-20.59	-48.4%	-195.13	-24.70
Middle East	-48.0%	-106.61	-17.47	-54.8%	-123.43	-20.20
North America	-31.1%	-437.15	-65.30	-38.2%	-528.89	-77.72
<b>Total</b>	<b>-37.5%</b>	<b>-2,104.48</b>	<b>-279.92</b>	<b>-45.0%</b>	<b>-2,539.05</b>	<b>-335.94</b>

Compared to 2019 (year-on-year)	Scenario 1 Path 1			Scenario 1 Path 1a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-0.1%	1.61	0.95	-0.1%	1.61	0.95
February 2020	-10.6%	-51.69	-5.78	-10.6%	-51.69	-5.78
March 2020	-36.9%	-202.50	-26.17	-36.9%	-202.50	-26.17
April 2020	-81.7%	-348.31	-44.94	-81.7%	-348.31	-44.94
May 2020	-80.3%	-341.80	-44.07	-80.3%	-341.80	-44.07
June 2020	-71.6%	-323.23	-42.98	-71.6%	-323.23	-42.98
July 2020	-53.2%	-272.18	-36.63	-53.2%	-272.18	-36.63
August 2020	-37.6%	-202.72	-27.77	-37.6%	-222.44	-30.55
September 2020	-26.8%	-135.07	-18.86	-33.6%	-191.69	-26.20
October 2020	-19.4%	-101.59	-14.46	-46.2%	-223.29	-29.90
November 2020	-14.4%	-73.20	-10.71	-43.7%	-189.39	-25.56
December 2020	-8.9%	-53.80	-8.48	-38.0%	-174.14	-24.10
<b>Total</b>	<b>-37.5%</b>	<b>-2,104.48</b>	<b>-279.92</b>	<b>-45.0%</b>	<b>-2,539.05</b>	<b>-335.94</b>



# Estimated results: Scenario 2 (World total)

Compared to Baseline (business as usual)	Scenario 2 Path 2			Scenario 2 Path 2a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-59.4%	-88.39	-15.13	-62.9%	-92.62	-15.79
Asia/Pacific	-44.9%	-999.86	-122.95	-48.0%	-1,065.70	-130.41
Europe	-57.8%	-833.07	-103.29	-61.2%	-872.14	-108.02
Latin America/Caribbean	-53.3%	-219.69	-27.35	-57.1%	-234.84	-29.00
Middle East	-60.6%	-138.86	-22.90	-63.7%	-144.59	-23.80
North America	-42.7%	-610.89	-88.28	-45.8%	-650.70	-93.45
<b>Total</b>	<b>-49.4%</b>	<b>-2,890.76</b>	<b>-379.91</b>	<b>-52.7%</b>	<b>-3,060.60</b>	<b>-400.46</b>

Compared to 2019 (year-on-year)	Scenario 2 Path 2			Scenario 2 Path 2a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-56.8%	-80.36	-13.86	-60.5%	-84.59	-14.52
Asia/Pacific	-42.5%	-916.47	-113.10	-45.8%	-982.31	-120.55
Europe	-57.0%	-801.55	-99.65	-60.5%	-840.62	-104.38
Latin America/Caribbean	-51.6%	-204.51	-25.99	-55.5%	-219.67	-27.64
Middle East	-59.5%	-132.60	-21.72	-62.6%	-138.33	-22.63
North America	-40.6%	-568.40	-83.50	-43.8%	-608.21	-88.67
<b>Total</b>	<b>-47.7%</b>	<b>-2,703.90</b>	<b>-357.83</b>	<b>-51.0%</b>	<b>-2,873.73</b>	<b>-378.38</b>

Compared to Baseline (business as usual)	Scenario 2 Path 2			Scenario 2 Path 2a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-3.6%	-13.49	-0.84	-3.6%	-13.49	-0.84
February 2020	-15.9%	-74.10	-8.47	-15.9%	-74.10	-8.47
March 2020	-39.0%	-217.69	-27.72	-39.0%	-217.69	-27.72
April 2020	-82.3%	-362.14	-46.57	-82.3%	-362.14	-46.57
May 2020	-81.0%	-356.79	-45.96	-81.0%	-356.79	-45.96
June 2020	-74.6%	-354.14	-46.51	-74.6%	-354.14	-46.51
July 2020	-64.5%	-347.03	-45.99	-64.5%	-347.03	-45.99
August 2020	-58.7%	-320.43	-43.00	-58.7%	-323.43	-43.27
September 2020	-52.6%	-269.73	-35.91	-55.0%	-280.99	-37.14
October 2020	-45.8%	-242.04	-32.44	-51.8%	-265.19	-35.13
November 2020	-37.9%	-185.52	-25.42	-49.7%	-230.20	-30.78
December 2020	-28.2%	-147.66	-21.07	-48.3%	-235.41	-32.08
<b>Total</b>	<b>-49.4%</b>	<b>-2,890.76</b>	<b>-379.91</b>	<b>-52.7%</b>	<b>-3,060.60</b>	<b>-400.46</b>

Compared to 2019 (year-on-year)	Scenario 2 Path 2			Scenario 2 Path 2a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-0.1%	1.61	0.95	-0.1%	1.61	0.95
February 2020	-10.6%	-51.69	-5.78	-10.6%	-51.69	-5.78
March 2020	-36.9%	-202.50	-26.17	-36.9%	-202.50	-26.17
April 2020	-81.7%	-348.31	-44.94	-81.7%	-348.31	-44.94
May 2020	-80.3%	-341.80	-44.07	-80.3%	-341.80	-44.07
June 2020	-73.6%	-336.51	-44.45	-73.6%	-336.51	-44.45
July 2020	-63.2%	-328.15	-43.77	-63.2%	-328.15	-43.77
August 2020	-57.4%	-304.82	-41.09	-57.4%	-307.82	-41.35
September 2020	-50.9%	-253.64	-34.10	-53.3%	-264.91	-35.33
October 2020	-44.5%	-230.50	-31.07	-50.6%	-253.65	-33.76
November 2020	-36.5%	-175.29	-24.18	-48.5%	-219.97	-29.54
December 2020	-25.6%	-132.28	-19.15	-46.4%	-220.03	-30.16
<b>Total</b>	<b>-47.7%</b>	<b>-2,703.90</b>	<b>-357.83</b>	<b>-51.0%</b>	<b>-2,873.73</b>	<b>-378.38</b>

## Baseline

Compared to 2019 (year-on-year)	Baseline (Originally-planned or business as usual)		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	7.5%	6.15	1.10
Asia/Pacific	5.4%	29.63	6.05
Europe	2.8%	30.98	3.60
Latin America/Caribbean	0.0%	0.52	0.17
Middle East	4.6%	7.59	1.30
North America	-2.2%	-3.21	-0.53
<b>Total</b>	<b>3.2%</b>	<b>71.66</b>	<b>11.69</b>

Compared to 2019 (year-on-year)	Baseline (Originally-planned or business as usual)		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	3.0%	5.13	0.95
February 2020	6.0%	8.56	1.47
March 2020	3.3%	5.74	0.75
April 2020	3.2%	5.86	0.91
May 2020	3.2%	5.78	1.06
June 2020	3.7%	7.39	1.09
July 2020	3.1%	6.99	1.09
August 2020	3.1%	6.84	1.13
September 2020	2.9%	5.74	0.87
October 2020	1.8%	3.67	0.63
November 2020	2.1%	3.53	0.65
December 2020	3.7%	6.41	1.09
<b>Total</b>	<b>3.2%</b>	<b>71.66</b>	<b>11.69</b>

## Reference

	Reference (compared to Baseline)			Reference (compared to 2019)		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-32.9%	-34.83	-7.24	-27.8%	-28.68	-6.14
Asia/Pacific	-39.5%	-250.34	-51.81	-36.2%	-220.71	-45.76
Europe	-35.1%	-392.72	-53.45	-33.3%	-361.74	-49.86
Latin America/Caribbean	-37.0%	-53.60	-10.61	-37.0%	-53.08	-10.44
Middle East	-31.9%	-64.06	-11.55	-28.8%	-56.47	-10.25
North America	-35.4%	-70.08	-18.78	-36.9%	-73.29	-19.31
<b>Total</b>	<b>-36.1%</b>	<b>-865.63</b>	<b>-153.44</b>	<b>-34.0%</b>	<b>-793.97</b>	<b>-141.75</b>

	Reference (compared to Baseline)			Reference (compared to 2019)		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-1.2%	-0.24	0.15	1.8%	4.89	1.10
February 2020	-10.3%	-21.40	-4.10	-5.0%	-12.84	-2.62
March 2020	-48.0%	-93.55	-16.62	-46.2%	-87.81	-15.88
April 2020	-93.6%	-161.93	-28.62	-93.4%	-156.06	-27.72
May 2020	-93.2%	-163.09	-28.58	-93.0%	-157.31	-27.52
June 2020	-81.8%	-160.70	-28.08	-81.2%	-153.30	-26.99
July 2020	-31.9%	-88.87	-16.05	-29.7%	-81.88	-14.96
August 2020	-20.6%	-63.24	-11.17	-18.1%	-56.40	-10.04
September 2020	-10.2%	-34.05	-6.12	-7.6%	-28.31	-5.25
October 2020	-8.1%	-25.40	-4.59	-6.5%	-21.73	-3.95
November 2020	-11.2%	-24.06	-4.37	-9.4%	-20.53	-3.72
December 2020	-14.0%	-29.11	-5.29	-10.8%	-22.70	-4.20
<b>Total</b>	<b>-36.1%</b>	<b>-865.63</b>	<b>-153.44</b>	<b>-34.0%</b>	<b>-793.97</b>	<b>-141.75</b>



# Estimated results: Scenario 1 (International)

Compared to Baseline (business as usual)	Scenario 1 Path 1			Scenario 1 Path 1a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-51.0%	-49.11	-10.24	-57.7%	-56.44	-11.80
Asia/Pacific	-46.1%	-290.03	-60.15	-54.8%	-349.46	-72.75
Europe	-48.6%	-512.97	-69.87	-56.4%	-602.30	-82.34
Latin America/Caribbean	-46.1%	-65.62	-12.99	-52.7%	-75.93	-15.03
Middle East	-50.7%	-92.85	-16.77	-57.0%	-106.04	-19.17
North America	-50.8%	-94.56	-25.37	-56.3%	-106.24	-28.49
<b>Total</b>	<b>-48.2%</b>	<b>-1,105.14</b>	<b>-195.39</b>	<b>-55.8%</b>	<b>-1,296.42</b>	<b>-229.58</b>

Compared to 2019 (year-on-year)	Scenario 1 Path 1			Scenario 1 Path 1a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-47.3%	-42.96	-9.14	-54.5%	-50.30	-10.69
Asia/Pacific	-43.2%	-260.40	-54.09	-52.4%	-319.83	-66.69
Europe	-47.1%	-481.99	-66.27	-55.2%	-571.32	-78.75
Latin America/Caribbean	-46.1%	-65.10	-12.82	-52.7%	-75.41	-14.86
Middle East	-48.5%	-85.26	-15.48	-55.0%	-98.45	-17.88
North America	-51.9%	-97.77	-25.89	-57.3%	-109.45	-29.02
<b>Total</b>	<b>-46.5%</b>	<b>-1,033.48</b>	<b>-183.70</b>	<b>-54.4%</b>	<b>-1,224.76</b>	<b>-217.89</b>

Compared to Baseline (business as usual)	Scenario 1 Path 1			Scenario 1 Path 1a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-1.2%	-0.24	0.15	-1.2%	-0.24	0.15
February 2020	-10.3%	-21.40	-4.10	-10.3%	-21.40	-4.10
March 2020	-48.0%	-93.55	-16.62	-48.0%	-93.55	-16.62
April 2020	-93.6%	-161.93	-28.62	-93.6%	-161.93	-28.62
May 2020	-93.2%	-163.09	-28.58	-93.2%	-163.09	-28.58
June 2020	-85.2%	-166.26	-28.99	-85.2%	-166.26	-28.99
July 2020	-65.8%	-146.80	-25.63	-65.8%	-146.80	-25.63
August 2020	-49.6%	-116.14	-20.43	-49.6%	-127.73	-22.46
September 2020	-38.8%	-82.66	-14.52	-46.3%	-109.42	-19.15
October 2020	-30.2%	-63.55	-11.35	-57.9%	-116.53	-20.62
November 2020	-25.1%	-46.76	-8.68	-55.3%	-95.20	-17.49
December 2020	-20.0%	-42.77	-8.02	-50.3%	-94.27	-17.46
<b>Total</b>	<b>-48.2%</b>	<b>-1,105.14</b>	<b>-195.39</b>	<b>-55.8%</b>	<b>-1,296.42</b>	<b>-229.58</b>

Compared to 2019 (year-on-year)	Scenario 1 Path 1			Scenario 1 Path 1a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	1.8%	4.89	1.10	1.8%	4.89	1.10
February 2020	-5.0%	-12.84	-2.62	-5.0%	-12.84	-2.62
March 2020	-46.2%	-87.81	-15.88	-46.2%	-87.81	-15.88
April 2020	-93.4%	-156.06	-27.72	-93.4%	-156.06	-27.72
May 2020	-93.0%	-157.31	-27.52	-93.0%	-157.31	-27.52
June 2020	-84.6%	-158.87	-27.90	-84.6%	-158.87	-27.90
July 2020	-64.7%	-139.81	-24.55	-64.7%	-139.81	-24.55
August 2020	-48.0%	-109.29	-19.29	-48.0%	-120.88	-21.32
September 2020	-37.0%	-76.92	-13.65	-44.7%	-103.68	-18.28
October 2020	-28.9%	-59.88	-10.72	-57.1%	-112.86	-19.99
November 2020	-23.5%	-43.23	-8.02	-54.4%	-91.67	-16.84
December 2020	-17.0%	-36.36	-6.93	-48.5%	-87.86	-16.37
<b>Total</b>	<b>-46.5%</b>	<b>-1,033.48</b>	<b>-183.70</b>	<b>-54.4%</b>	<b>-1,224.76</b>	<b>-217.89</b>



# Estimated results: Scenario 2 (International)

Compared to Baseline (business as usual)	Scenario 2 Path 2			Scenario 2 Path 2a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-62.3%	-60.48	-12.64	-65.4%	-62.70	-13.11
Asia/Pacific	-57.3%	-365.84	-76.16	-61.1%	-384.86	-80.20
Europe	-60.4%	-644.85	-88.05	-63.7%	-670.36	-91.67
Latin America/Caribbean	-56.4%	-80.39	-15.92	-59.5%	-83.91	-16.61
Middle East	-61.9%	-113.64	-20.55	-64.8%	-117.79	-21.30
North America	-61.3%	-113.94	-30.58	-63.9%	-117.64	-31.56
<b>Total</b>	<b>-59.6%</b>	<b>-1,379.14</b>	<b>-243.90</b>	<b>-62.9%</b>	<b>-1,437.26</b>	<b>-254.47</b>

Compared to 2019 (year-on-year)	Scenario 2 Path 2			Scenario 2 Path 2a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-59.5%	-54.33	-11.54	-62.8%	-56.55	-12.01
Asia/Pacific	-55.0%	-336.21	-70.11	-59.0%	-355.23	-74.15
Europe	-59.3%	-613.87	-84.45	-62.7%	-639.39	-88.08
Latin America/Caribbean	-56.5%	-79.86	-15.75	-59.5%	-83.39	-16.44
Middle East	-60.1%	-106.05	-19.25	-63.2%	-110.20	-20.01
North America	-62.1%	-117.15	-31.11	-64.7%	-120.85	-32.09
<b>Total</b>	<b>-58.3%</b>	<b>-1,307.48</b>	<b>-232.20</b>	<b>-61.7%</b>	<b>-1,365.60</b>	<b>-242.77</b>

Compared to Baseline (business as usual)	Scenario 2 Path 2			Scenario 2 Path 2a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-1.2%	-0.24	0.15	-1.2%	-0.24	0.15
February 2020	-10.3%	-21.40	-4.10	-10.3%	-21.40	-4.10
March 2020	-48.0%	-93.55	-16.62	-48.0%	-93.55	-16.62
April 2020	-93.6%	-161.93	-28.62	-93.6%	-161.93	-28.62
May 2020	-93.2%	-163.09	-28.58	-93.2%	-163.09	-28.58
June 2020	-87.2%	-170.69	-29.69	-87.2%	-170.69	-29.69
July 2020	-76.9%	-171.64	-29.95	-76.9%	-171.64	-29.95
August 2020	-71.1%	-164.41	-28.83	-71.1%	-164.41	-28.83
September 2020	-64.9%	-137.25	-23.96	-67.4%	-139.83	-24.40
October 2020	-58.2%	-121.43	-21.54	-64.4%	-128.57	-22.78
November 2020	-50.4%	-92.89	-17.13	-62.7%	-107.89	-19.86
December 2020	-39.9%	-80.62	-15.03	-61.0%	-114.02	-21.17
<b>Total</b>	<b>-59.6%</b>	<b>-1,379.14</b>	<b>-243.90</b>	<b>-62.9%</b>	<b>-1,437.26</b>	<b>-254.47</b>

Compared to 2019 (year-on-year)	Scenario 2 Path 2			Scenario 2 Path 2a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	1.8%	4.89	1.10	1.8%	4.89	1.10
February 2020	-5.0%	-12.84	-2.62	-5.0%	-12.84	-2.62
March 2020	-46.2%	-87.81	-15.88	-46.2%	-87.81	-15.88
April 2020	-93.4%	-156.06	-27.72	-93.4%	-156.06	-27.72
May 2020	-93.0%	-157.31	-27.52	-93.0%	-157.31	-27.52
June 2020	-86.7%	-163.30	-28.60	-86.7%	-163.30	-28.60
July 2020	-76.1%	-164.65	-28.86	-76.1%	-164.65	-28.86
August 2020	-70.2%	-157.56	-27.69	-70.2%	-157.56	-27.69
September 2020	-63.9%	-131.50	-23.09	-66.4%	-134.09	-23.53
October 2020	-57.5%	-117.76	-20.90	-63.7%	-124.90	-22.15
November 2020	-49.4%	-89.35	-16.47	-61.9%	-104.36	-19.21
December 2020	-37.6%	-74.21	-13.94	-59.6%	-107.61	-20.09
<b>Total</b>	<b>-58.3%</b>	<b>-1,307.48</b>	<b>-232.20</b>	<b>-61.7%</b>	<b>-1,365.60</b>	<b>-242.77</b>

## Baseline

Compared to 2019 (year-on-year)	Baseline (Originally-planned or business as usual)		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	4.4%	1.89	0.17
Asia/Pacific	3.9%	53.76	3.80
Europe	-0.4%	0.54	0.04
Latin America/Caribbean	5.6%	14.65	1.19
Middle East	-3.5%	-1.33	-0.12
North America	4.9%	45.69	5.31
<b>Total</b>	<b>3.7%</b>	<b>115.20</b>	<b>10.39</b>

Compared to 2019 (year-on-year)	Baseline (Originally-planned or business as usual)		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	4.1%	9.96	0.84
February 2020	6.3%	13.84	1.21
March 2020	3.7%	9.45	0.81
April 2020	3.1%	7.96	0.72
May 2020	3.6%	9.22	0.83
June 2020	3.9%	10.24	0.97
July 2020	4.3%	11.89	1.13
August 2020	3.2%	8.76	0.78
September 2020	4.1%	10.35	0.94
October 2020	2.8%	7.87	0.74
November 2020	2.5%	6.69	0.59
December 2020	3.4%	8.97	0.83
<b>Total</b>	<b>3.7%</b>	<b>115.20</b>	<b>10.39</b>

## Reference

Region	Reference (compared to Baseline)			Reference (compared to Baseline)		
	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-40.5%	-20.96	-1.87	-37.9%	-19.08	-1.70
Asia/Pacific	-23.7%	-390.46	-28.98	-20.7%	-336.70	-25.18
Europe	-26.3%	-102.85	-8.33	-26.6%	-102.31	-8.29
Latin America/Caribbean	-26.6%	-74.17	-6.09	-22.5%	-59.52	-4.90
Middle East	-33.9%	-15.94	-1.48	-36.2%	-17.27	-1.61
North America	-22.1%	-302.77	-35.15	-18.3%	-257.08	-29.85
<b>Total</b>	<b>-24.2%</b>	<b>-907.15</b>	<b>-81.91</b>	<b>-21.4%</b>	<b>-791.95</b>	<b>-71.53</b>

Month	Reference (compared to Baseline)			Reference (compared to 2019)		
	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-5.2%	-13.25	-1.00	-1.3%	-3.29	-0.15
February 2020	-19.6%	-52.69	-4.37	-14.5%	-38.85	-3.16
March 2020	-32.9%	-124.14	-11.10	-30.4%	-114.69	-10.30
April 2020	-74.0%	-200.21	-17.94	-73.2%	-192.25	-17.23
May 2020	-72.0%	-193.71	-17.38	-71.0%	-184.49	-16.55
June 2020	-47.7%	-142.60	-13.62	-45.6%	-132.36	-12.65
July 2020	-18.9%	-77.21	-8.04	-15.5%	-65.32	-6.91
August 2020	-0.3%	-24.41	-2.41	2.9%	-15.65	-1.63
September 2020	2.7%	-6.65	-0.69	7.0%	3.69	0.25
October 2020	0.1%	-7.01	-0.55	2.9%	0.86	0.19
November 2020	-11.7%	-32.04	-2.31	-9.5%	-25.35	-1.73
December 2020	-13.2%	-33.22	-2.51	-10.2%	-24.26	-1.68
<b>Total</b>	<b>-24.2%</b>	<b>-907.15</b>	<b>-81.91</b>	<b>-21.4%</b>	<b>-791.95</b>	<b>-71.53</b>





# Estimated results: Scenario 1 (Domestic)

Compared to Baseline (business as usual)	Scenario 1 Path 1			Scenario 1 Path 1a		
	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Region						
Africa	-42.2%	-21.92	-1.96	-51.6%	-26.47	-2.36
Asia/Pacific	-32.1%	-505.58	-37.42	-38.4%	-604.06	-44.60
Europe	-38.7%	-144.49	-11.70	-47.2%	-175.80	-14.24
Latin America/Caribbean	-40.1%	-109.11	-8.96	-49.0%	-134.37	-11.03
Middle East	-44.5%	-20.02	-1.86	-52.4%	-23.65	-2.20
North America	-30.3%	-385.08	-44.71	-37.5%	-465.13	-54.00
<b>Total</b>	<b>-33.4%</b>	<b>-1,186.20</b>	<b>-106.61</b>	<b>-40.5%</b>	<b>-1,429.49</b>	<b>-128.43</b>

Compared to 2019 (year-on-year)	Scenario 1 Path 1			Scenario 1 Path 1a		
	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Region						
Africa	-39.7%	-20.04	-1.79	-49.4%	-24.59	-2.20
Asia/Pacific	-29.5%	-451.82	-33.61	-36.0%	-550.30	-40.79
Europe	-39.0%	-143.95	-11.66	-47.4%	-175.26	-14.20
Latin America/Caribbean	-36.8%	-94.46	-7.77	-46.1%	-119.72	-9.84
Middle East	-46.4%	-21.35	-1.99	-54.1%	-24.98	-2.33
North America	-26.9%	-339.38	-39.40	-34.4%	-419.44	-48.70
<b>Total</b>	<b>-30.9%</b>	<b>-1,071.00</b>	<b>-96.22</b>	<b>-38.2%</b>	<b>-1,314.29</b>	<b>-118.05</b>

Compared to Baseline (business as usual)	Scenario 1 Path 1			Scenario 1 Path 1a		
	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Month						
January 2020	-5.2%	-13.25	-1.00	-5.2%	-13.25	-1.00
February 2020	-19.6%	-52.69	-4.37	-19.6%	-52.69	-4.37
March 2020	-32.9%	-124.14	-11.10	-32.9%	-124.14	-11.10
April 2020	-74.0%	-200.21	-17.94	-74.0%	-200.21	-17.94
May 2020	-72.0%	-193.71	-17.38	-72.0%	-193.71	-17.38
June 2020	-63.0%	-174.60	-16.05	-63.0%	-174.60	-16.05
July 2020	-46.6%	-144.25	-13.22	-46.6%	-144.25	-13.22
August 2020	-31.6%	-102.19	-9.26	-31.6%	-110.32	-10.01
September 2020	-22.2%	-68.50	-6.15	-28.1%	-98.35	-8.86
October 2020	-14.9%	-49.59	-4.48	-40.0%	-118.30	-10.65
November 2020	-10.6%	-36.66	-3.28	-38.2%	-104.41	-9.31
December 2020	-6.5%	-26.41	-2.38	-33.2%	-95.25	-8.56
<b>Total</b>	<b>-33.4%</b>	<b>-1,186.20</b>	<b>-106.61</b>	<b>-40.5%</b>	<b>-1,429.49</b>	<b>-128.43</b>

Compared to 2019 (year-on-year)	Scenario 1 Path 1			Scenario 1 Path 1a		
	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Month						
January 2020	-1.3%	-3.29	-0.15	-1.3%	-3.29	-0.15
February 2020	-14.5%	-38.85	-3.16	-14.5%	-38.85	-3.16
March 2020	-30.4%	-114.69	-10.30	-30.4%	-114.69	-10.30
April 2020	-73.2%	-192.25	-17.23	-73.2%	-192.25	-17.23
May 2020	-71.0%	-184.49	-16.55	-71.0%	-184.49	-16.55
June 2020	-61.5%	-164.36	-15.08	-61.5%	-164.36	-15.08
July 2020	-44.3%	-132.36	-12.09	-44.3%	-132.36	-12.09
August 2020	-29.5%	-93.43	-8.48	-29.5%	-101.56	-9.23
September 2020	-19.0%	-58.15	-5.21	-25.1%	-88.01	-7.92
October 2020	-12.5%	-41.72	-3.74	-38.3%	-110.43	-9.91
November 2020	-8.3%	-29.97	-2.69	-36.6%	-97.72	-8.72
December 2020	-3.3%	-17.44	-1.55	-30.9%	-86.29	-7.73
<b>Total</b>	<b>-30.9%</b>	<b>-1,071.00</b>	<b>-96.22</b>	<b>-38.2%</b>	<b>-1,314.29</b>	<b>-118.05</b>



# Estimated results: Scenario 2 (Domestic)

Compared to Baseline (business as usual)	Scenario 2 Path 2			Scenario 2 Path 2a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-54.0%	-27.91	-2.49	-58.4%	-29.92	-2.67
Asia/Pacific	-39.3%	-634.02	-46.79	-42.2%	-680.84	-50.20
Europe	-50.4%	-188.22	-15.25	-54.3%	-201.78	-16.34
Latin America/Caribbean	-51.7%	-139.30	-11.44	-55.8%	-150.93	-12.39
Middle East	-55.6%	-25.22	-2.35	-59.3%	-26.80	-2.50
North America	-39.2%	-496.94	-57.70	-42.4%	-533.06	-61.89
<b>Total</b>	<b>-42.1%</b>	<b>-1,511.62</b>	<b>-136.01</b>	<b>-45.4%</b>	<b>-1,623.34</b>	<b>-145.99</b>

Compared to 2019 (year-on-year)	Scenario 2 Path 2			Scenario 2 Path 2a		
Region	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
Africa	-52.0%	-26.03	-2.32	-56.6%	-28.04	-2.50
Asia/Pacific	-37.0%	-580.26	-42.99	-39.9%	-627.08	-46.40
Europe	-50.6%	-187.69	-15.20	-54.5%	-201.24	-16.30
Latin America/Caribbean	-49.0%	-124.65	-10.25	-53.3%	-136.28	-11.20
Middle East	-57.2%	-26.55	-2.47	-60.8%	-28.13	-2.62
North America	-36.3%	-451.25	-52.39	-39.6%	-487.36	-56.58
<b>Total</b>	<b>-40.0%</b>	<b>-1,396.42</b>	<b>-125.62</b>	<b>-43.3%</b>	<b>-1,508.13</b>	<b>-135.60</b>

Compared to Baseline (business as usual)	Scenario 2 Path 2			Scenario 2 Path 2a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-5.2%	-13.25	-1.00	-5.2%	-13.25	-1.00
February 2020	-19.6%	-52.69	-4.37	-19.6%	-52.69	-4.37
March 2020	-32.9%	-124.14	-11.10	-32.9%	-124.14	-11.10
April 2020	-74.0%	-200.21	-17.94	-74.0%	-200.21	-17.94
May 2020	-72.0%	-193.71	-17.38	-72.0%	-193.71	-17.38
June 2020	-65.0%	-183.45	-16.82	-65.0%	-183.45	-16.82
July 2020	-55.0%	-175.39	-16.04	-55.0%	-175.39	-16.04
August 2020	-49.0%	-156.02	-14.17	-49.0%	-159.02	-14.44
September 2020	-43.3%	-132.49	-11.95	-45.6%	-141.16	-12.74
October 2020	-37.0%	-120.61	-10.90	-42.7%	-136.62	-12.35
November 2020	-29.7%	-92.63	-8.30	-41.1%	-122.30	-10.92
December 2020	-20.1%	-67.03	-6.04	-39.6%	-121.39	-10.90
<b>Total</b>	<b>-42.1%</b>	<b>-1,511.62</b>	<b>-136.01</b>	<b>-45.4%</b>	<b>-1,623.34</b>	<b>-145.99</b>

Compared to 2019 (year-on-year)	Scenario 2 Path 2			Scenario 2 Path 2a		
Month	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)	Seat Capacity (%)	Passenger number (million)	Passenger revenue (USD, billion)
January 2020	-1.3%	-3.29	-0.15	-1.3%	-3.29	-0.15
February 2020	-14.5%	-38.85	-3.16	-14.5%	-38.85	-3.16
March 2020	-30.4%	-114.69	-10.30	-30.4%	-114.69	-10.30
April 2020	-73.2%	-192.25	-17.23	-73.2%	-192.25	-17.23
May 2020	-71.0%	-184.49	-16.55	-71.0%	-184.49	-16.55
June 2020	-63.6%	-173.21	-15.85	-63.6%	-173.21	-15.85
July 2020	-53.1%	-163.50	-14.91	-53.1%	-163.50	-14.91
August 2020	-47.4%	-147.26	-13.39	-47.4%	-150.26	-13.66
September 2020	-41.0%	-122.14	-11.01	-43.4%	-130.82	-11.80
October 2020	-35.2%	-112.74	-10.16	-41.1%	-128.75	-11.61
November 2020	-28.0%	-85.94	-7.71	-39.7%	-115.61	-10.33
December 2020	-17.4%	-58.07	-5.21	-37.5%	-112.42	-10.07
<b>Total</b>	<b>-40.0%</b>	<b>-1,396.42</b>	<b>-125.62</b>	<b>-43.3%</b>	<b>-1,508.13</b>	<b>-135.60</b>



## Appendix D: Estimated Results at Route Group Level

**The estimates will be updated with the situation evolving and more information available.**



# Estimated results by route group for Jan-May 2020 (compared to Baseline)

Route Group	DOM/INT	Seat capacity					Scheduled passenger (thousand)					Gross revenue (USD, million)				
		Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Africa	Domestic	-10.0%	-7.4%	-35.5%	-96.8%	-95.7%	-429	-442	-1,756	-3,565	-3,179	-38	-40	-157	-318	-284
Africa - Asia/Pacific	International	4.4%	-19.3%	-46.2%	-94.7%	-90.6%	16	-119	-247	-388	-370	9	-66	-136	-215	-204
Africa - Middle East	International	-5.9%	-6.5%	-56.1%	-96.0%	-94.6%	-87	-188	-1,622	-2,583	-2,500	-19	-41	-355	-566	-548
Africa - North America	International	-8.6%	-2.8%	-25.9%	-87.2%	-87.2%	-17	-9	-89	-192	-191	-12	-7	-65	-141	-141
Africa & Middle East - Central America/Caribbean	International						0	0	0	0	0	0	0	0	0	0
Africa & Middle East - South America	International	1.8%	4.7%	-22.9%	-83.8%	-89.4%	4	-9	-55	-121	-119	1	-4	-23	-50	-50
Central America/Caribbean	Domestic	-2.8%	-3.0%	-20.9%	-84.0%	-86.0%	-120	-181	-1,671	-4,518	-4,695	-9	-14	-125	-339	-352
Central America/Caribbean - Europe	International	-0.9%	0.5%	-19.3%	-94.6%	-91.5%	21	7	-540	-1,430	-1,196	7	2	-184	-489	-409
Central America/Caribbean - North America	International	4.7%	4.4%	-20.5%	-91.3%	-91.5%	446	293	-3,552	-7,890	-7,126	70	46	-557	-1,238	-1,118
Central America/Caribbean - South America	International	5.1%	9.8%	-26.2%	-96.6%	-94.9%	71	101	-485	-1,234	-1,290	13	18	-89	-225	-236
China	Domestic	-10.5%	-75.5%	-60.3%	-55.7%	-37.2%	-8,888	-47,212	-37,413	-31,549	-27,168	-782	-4,155	-3,292	-2,776	-2,391
China - Europe	International	1.8%	-52.1%	-74.1%	-93.1%	-90.8%	59	-931	-1,553	-2,059	-2,058	18	-282	-471	-625	-624
China - Middle East	International	5.2%	-56.5%	-76.6%	-91.8%	-95.7%	36	-336	-495	-589	-583	9	-82	-121	-144	-143
China - North America	International	2.9%	-45.0%	-66.4%	-92.4%	-87.5%	47	-682	-1,106	-1,556	-1,536	19	-274	-444	-625	-617
China & South West Asia - North Asia	International	-0.9%	-43.7%	-84.3%	-89.6%	-88.7%	-113	-3,494	-6,026	-5,967	-5,807	-20	-621	-1,072	-1,061	-1,033
China & South West Asia - Pacific South East Asia	International	-2.2%	-47.5%	-72.1%	-91.0%	-90.5%	-354	-5,747	-8,323	-9,438	-9,141	-77	-1,244	-1,801	-2,043	-1,978
Europe	Domestic	-7.4%	-7.4%	-37.5%	-89.2%	-88.1%	-1,693	-2,071	-12,968	-24,436	-25,183	-137	-168	-1,050	-1,979	-2,040
Europe - Middle East	International	0.8%	-0.5%	-43.9%	-89.8%	-89.4%	298	-30	-4,279	-7,638	-7,271	55	-5	-787	-1,406	-1,338



# Estimated results by route group for Jan-May 2020 (compared to Baseline)

Route Group	DOM/INT	Seat capacity					Scheduled passenger (thousand)					Gross revenue (USD, million)				
		Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Europe - North Africa	International	-0.1%	0.9%	-41.0%	-97.8%	-96.7%	50	-14	-1,846	-4,136	-3,266	7	-2	-272	-610	-481
Europe - North America	International	5.0%	4.6%	-34.5%	-91.3%	-93.5%	431	233	-3,111	-7,438	-8,549	135	73	-976	-2,335	-2,683
Europe - North Asia	International	4.9%	4.5%	-42.1%	-89.7%	-90.7%	57	-13	-546	-1,105	-1,119	27	-6	-256	-518	-525
Europe - Pacific South East Asia	International	-3.3%	-0.6%	-14.4%	-91.6%	-90.9%	-37	-107	-576	-1,441	-1,295	-18	-54	-288	-720	-647
Europe - South America	International	-5.6%	-5.5%	-37.2%	-95.6%	-93.3%	-49	-72	-697	-1,374	-1,363	-18	-26	-249	-491	-487
Europe - South West Asia	International	1.1%	2.2%	-36.8%	-90.0%	-88.6%	44	-66	-988	-1,838	-1,788	12	-18	-266	-496	-482
Europe - Sub Saharan Africa	International	2.4%	2.6%	-26.9%	-90.4%	-91.1%	92	37	-765	-1,635	-1,570	39	16	-324	-692	-665
Intra Africa	International	-10.4%	-10.7%	-44.4%	-95.5%	-94.3%	-288	-387	-1,391	-2,498	-2,420	-38	-51	-182	-326	-316
Intra Central America/Caribbean	International	4.5%	3.6%	-27.5%	-89.8%	-88.2%	67	35	-595	-1,334	-1,392	6	3	-50	-111	-116
Intra China & South West Asia	International	-10.3%	-60.8%	-79.0%	-88.8%	-86.8%	-538	-3,072	-4,091	-4,652	-4,500	-69	-391	-521	-592	-573
Intra Europe	International	-2.3%	-3.7%	-46.5%	-96.4%	-95.6%	-180	-2,431	-29,696	-59,930	-64,221	-18	-247	-3,023	-6,101	-6,538
Intra Middle East	International	-6.1%	-6.0%	-68.2%	-94.8%	-94.8%	-73	-229	-2,734	-3,784	-3,441	-8	-26	-313	-433	-394
Intra North America	International	3.3%	2.7%	-23.6%	-93.4%	-96.8%	111	6	-1,295	-2,826	-2,708	15	1	-173	-377	-361
Intra North Asia	International	-2.2%	-2.7%	-78.8%	-96.4%	-96.3%	-34	-227	-1,094	-1,693	-1,680	-2	-12	-59	-91	-90
Intra Pacific South East Asia	International	-1.3%	-5.5%	-45.6%	-94.9%	-95.9%	-151	-1,657	-5,038	-7,938	-7,739	-23	-247	-750	-1,182	-1,152
Intra South America	International	-9.5%	-7.3%	-39.9%	-96.9%	-96.0%	-195	-149	-934	-1,699	-1,739	-34	-26	-162	-295	-302
Latin America/Caribbean - China	International	5.0%					0	0	0	0	0	0	0	0	0	0
Latin America/Caribbean - North Asia & Pacific South East Asia	International	2.9%	0.2%	-17.9%	-78.9%	-86.7%	2	-8	-30	-69	-68	1	-6	-20	-46	-46



# Estimated results by route group for Jan-May 2020 (compared to Baseline)

Route Group	DOM/INT	Seat capacity					Scheduled passenger (thousand)					Gross revenue (USD, million)				
		Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Middle East	Domestic	-10.0%	-5.8%	-44.5%	-96.0%	-94.5%	-141	-200	-1,795	-3,473	-3,366	-13	-19	-167	-323	-313
Middle East - North America	International	2.0%	2.6%	-27.4%	-90.2%	-92.8%	42	18	-339	-756	-764	20	9	-161	-360	-363
Middle East - North Asia & Pacific South East Asia	International	-1.5%	-2.3%	-36.1%	-82.1%	-85.5%	-22	-338	-1,360	-2,329	-2,163	-6	-90	-364	-624	-579
Middle East - South West Asia	International	-3.1%	-1.6%	-44.1%	-96.6%	-93.5%	-132	-639	-2,951	-4,909	-4,732	-21	-101	-466	-775	-747
North America	Domestic	1.8%	5.0%	-14.5%	-67.1%	-73.0%	2,518	3,762	-36,859	-70,468	-69,326	292	437	-4,279	-8,181	-8,049
North America - North Asia	International	5.0%	5.1%	-25.1%	-85.1%	-86.7%	68	-92	-618	-1,346	-1,364	21	-29	-195	-425	-430
North America - Pacific South East Asia	International	4.1%	5.9%	-17.8%	-88.7%	-86.8%	31	-47	-295	-657	-644	25	-38	-235	-524	-514
North America - South America	International	4.9%	5.0%	-27.6%	-94.0%	-94.8%	79	55	-618	-1,285	-1,329	31	22	-243	-506	-523
North America - South West Asia	International	3.6%	4.8%	-28.3%	-92.0%	-88.0%	7	-14	-94	-185	-175	5	-10	-69	-137	-129
North Asia	Domestic	0.3%	-2.5%	-19.2%	-54.9%	-69.0%	142	-1,017	-6,805	-9,273	-9,200	7	-51	-340	-464	-460
North Asia - Pacific South East Asia	International	-0.2%	-7.6%	-63.6%	-89.1%	-88.9%	-47	-1,080	-3,478	-3,981	-3,871	-12	-279	-899	-1,028	-1,000
Pacific South East Asia	Domestic	-7.4%	-8.2%	-30.6%	-88.2%	-84.7%	-1,629	-2,778	-11,969	-25,526	-23,279	-100	-170	-733	-1,564	-1,427
South America	Domestic	-8.9%	-9.2%	-39.9%	-94.8%	-94.0%	-1,320	-1,539	-7,153	-13,796	-14,182	-111	-130	-604	-1,164	-1,197
South West Asia	Domestic	-10.0%	-4.3%	-30.9%	-98.8%	-94.4%	-1,690	-1,012	-5,753	-13,606	-14,127	-104	-62	-353	-834	-866
<b>Domestic</b>		-5.2%	-19.6%	-32.9%	-74.0%	-72.0%	-13,250	-52,692	-124,143	-200,210	-193,706	-995	-4,370	-11,101	-17,944	-17,378
<b>International</b>		-1.2%	-10.3%	-48.0%	-93.6%	-93.2%	-241	-21,405	-93,550	-161,925	-163,088	151	-4,096	-16,623	-28,623	-28,584
<b>Total</b>		-3.6%	-15.9%	-39.0%	-82.3%	-81.0%	-13,491	-74,097	-217,693	-362,135	-356,794	-844	-8,466	-27,725	-46,567	-45,962

\* May results are tentative



# Estimated results by route group for Jan-May 2020 (compared to Jan-May 2019)

Route Group	DOM/INT	Seat capacity					Scheduled passenger (thousand)					Gross revenue (USD, million)				
		Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Africa	Domestic	-4.9%	0.0%	-32.4%	-96.7%	-95.5%	-224	-181	-1,578	-3,470	-3,040	-20	-16	-141	-310	-271
Africa - Asia/Pacific	International	18.1%	-1.2%	-37.9%	-94.0%	-89.6%	67	-48	-192	-342	-330	37	-27	-106	-189	-182
Africa - Middle East	International	7.2%	9.6%	-50.1%	-95.6%	-94.1%	248	162	-1,306	-2,330	-2,268	54	36	-286	-510	-497
Africa - North America	International	7.6%	22.2%	-13.0%	-86.0%	-85.4%	16	28	-57	-174	-165	12	20	-42	-128	-121
Africa & Middle East - Central America/Caribbean	International		-100.0%				0	0	0	0	0	0	0	0	0	0
Africa & Middle East - South America	International	-5.7%	1.9%	-26.8%	-81.8%	-87.7%	-7	-12	-62	-107	-101	-3	-5	-26	-45	-42
Central America/Caribbean	Domestic	9.2%	11.7%	-12.0%	-82.8%	-85.1%	441	438	-1,160	-4,166	-4,380	33	33	-87	-312	-329
Central America/Caribbean - Europe	International	-1.7%	2.6%	-21.0%	-94.4%	-91.2%	12	38	-568	-1,367	-1,145	4	13	-194	-467	-391
Central America/Caribbean - North America	International	0.0%	3.9%	-24.4%	-91.5%	-91.5%	95	294	-3,971	-7,970	-7,094	15	46	-623	-1,251	-1,113
Central America/Caribbean - South America	International	3.6%	8.4%	-28.4%	-96.4%	-94.6%	52	86	-522	-1,174	-1,234	10	16	-95	-214	-225
China	Domestic	-3.7%	-73.4%	-58.0%	-55.7%	-37.2%	-4,934	-42,553	-34,289	-31,366	-26,983	-434	-3,745	-3,017	-2,760	-2,374
China - Europe	International	4.0%	-49.0%	-73.1%	-93.1%	-90.9%	101	-823	-1,481	-2,057	-2,068	31	-250	-449	-624	-627
China - Middle East	International	6.4%	-56.4%	-77.1%	-91.8%	-95.6%	45	-333	-505	-590	-571	11	-81	-124	-145	-140
China - North America	International	-5.7%	-48.2%	-70.1%	-92.8%	-88.1%	-92	-763	-1,282	-1,636	-1,617	-37	-306	-515	-657	-649
China & South West Asia - North Asia	International	21.7%	-31.8%	-81.5%	-89.1%	-88.2%	1,237	-2,331	-4,988	-5,652	-5,554	220	-415	-887	-1,005	-988
China & South West Asia - Pacific South East Asia	International	6.7%	-45.6%	-71.3%	-91.0%	-90.4%	657	-5,339	-7,990	-9,352	-9,004	142	-1,155	-1,729	-2,024	-1,949
Europe	Domestic	-8.4%	-7.3%	-38.3%	-89.1%	-88.1%	-1,790	-1,921	-13,125	-24,217	-25,021	-145	-156	-1,063	-1,962	-2,027
Europe - Middle East	International	4.9%	6.1%	-42.6%	-89.6%	-88.1%	598	405	-4,090	-7,502	-6,446	110	75	-753	-1,380	-1,186



# Estimated results by route group for Jan-May 2020 (compared to Jan-May 2019)

Route Group	DOM/INT	Seat capacity					Scheduled passenger (thousand)					Gross revenue (USD, million)				
		Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Europe - North Africa	International	-0.9%	5.6%	-42.3%	-97.7%	-96.7%	55	152	-1,892	-3,844	-3,237	8	22	-279	-567	-477
Europe - North America	International	-0.6%	4.1%	-36.2%	-91.3%	-93.5%	119	209	-3,280	-7,478	-8,549	37	66	-1,029	-2,347	-2,683
Europe - North Asia	International	4.3%	6.4%	-41.9%	-89.4%	-90.4%	53	4	-539	-1,063	-1,087	25	2	-253	-499	-510
Europe - Pacific South East Asia	International	5.5%	6.7%	-19.2%	-91.3%	-90.7%	120	12	-671	-1,387	-1,262	60	6	-335	-693	-631
Europe - South America	International	-2.7%	0.0%	-36.9%	-95.4%	-93.1%	-3	2	-686	-1,323	-1,317	-1	1	-245	-473	-471
Europe - South West Asia	International	-8.3%	-3.9%	-43.0%	-89.9%	-87.9%	-143	-173	-1,188	-1,812	-1,684	-39	-47	-320	-489	-454
Europe - Sub Saharan Africa	International	0.6%	5.2%	-27.5%	-90.4%	-90.9%	62	79	-779	-1,637	-1,539	26	33	-330	-693	-652
Intra Africa	International	1.5%	5.3%	-36.4%	-95.0%	-93.4%	29	-23	-1,054	-2,237	-2,073	4	-3	-138	-292	-271
Intra Central America/Caribbean	International	1.1%	3.9%	-30.3%	-90.0%	-88.6%	22	44	-647	-1,363	-1,436	2	4	-54	-114	-120
Intra China & South West Asia	International	-2.0%	-57.0%	-76.9%	-87.4%	-85.0%	-105	-2,648	-3,640	-4,101	-3,882	-13	-337	-463	-522	-494
Intra Europe	International	-0.6%	3.4%	-43.0%	-96.3%	-95.6%	946	934	-26,168	-57,411	-63,317	96	95	-2,664	-5,845	-6,446
Intra Middle East	International	-2.4%	-0.4%	-66.7%	-94.5%	-94.1%	91	-23	-2,559	-3,560	-3,019	10	-3	-293	-407	-346
Intra North America	International	-4.0%	-1.1%	-29.5%	-93.6%	-96.9%	-76	-74	-1,527	-2,899	-2,814	-10	-10	-204	-387	-376
Intra North Asia	International	-32.5%	-31.0%	-85.0%	-96.6%	-96.4%	-617	-712	-1,627	-1,777	-1,745	-33	-38	-87	-95	-94
Intra Pacific South East Asia	International	7.1%	2.0%	-42.7%	-94.7%	-95.7%	540	-1,081	-4,605	-7,607	-7,267	80	-161	-686	-1,133	-1,082
Intra South America	International	-9.5%	-3.7%	-37.3%	-96.5%	-95.5%	-183	-74	-851	-1,518	-1,525	-32	-13	-148	-264	-265
Latin America/Caribbean - China	International	-66.0%	-100.0%	-100.0%	-100.0%	-100.0%	-6	-8	-8	-10	-10	-4	-6	-6	-8	-8
Latin America/Caribbean - North Asia & Pacific South East Asia	International	2.9%	0.7%	-19.3%	-77.2%	-84.7%	2	-8	-31	-63	-58	2	-5	-21	-42	-39





# Estimated results by route group for Jan-May 2020 (compared to Jan-May 2019)

Route Group	DOM/INT	Seat capacity					Scheduled passenger (thousand)					Gross revenue (USD, million)				
		Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jan 20	Feb 20	Mar 20	Apr 20	May 20
Middle East	Domestic	-15.5%	-8.5%	-48.1%	-96.0%	-94.5%	-352	-280	-2,012	-3,465	-3,358	-33	-26	-187	-323	-313
Middle East - North America	International	4.8%	6.6%	-27.6%	-90.0%	-92.4%	63	44	-340	-738	-721	30	21	-162	-351	-343
Middle East - North Asia & Pacific South East Asia	International	-0.5%	2.8%	-36.0%	-81.4%	-83.6%	13	-214	-1,346	-2,225	-1,883	3	-57	-361	-596	-504
Middle East - South West Asia	International	2.9%	9.5%	-39.7%	-96.3%	-92.7%	184	-153	-2,570	-4,450	-4,165	29	-24	-406	-703	-658
North America	Domestic	4.8%	11.5%	-12.4%	-65.6%	-71.6%	4,617	7,654	-34,704	-66,962	-65,161	536	889	-4,029	-7,774	-7,565
North America - North Asia	International	3.5%	5.0%	-26.7%	-84.8%	-86.2%	51	-90	-642	-1,319	-1,305	16	-28	-203	-416	-412
North America - Pacific South East Asia	International	6.5%	13.0%	-18.2%	-88.8%	-86.5%	52	-3	-296	-663	-628	41	-2	-236	-529	-501
North America - South America	International	-8.0%	-2.8%	-34.1%	-94.1%	-94.8%	-115	-39	-744	-1,299	-1,319	-45	-15	-293	-512	-520
North America - South West Asia	International	20.4%	24.4%	-14.9%	-88.7%	-83.0%	35	14	-63	-130	-120	26	11	-47	-96	-88
North Asia	Domestic	3.1%	2.3%	-18.5%	-54.5%	-68.0%	511	-452	-6,595	-9,094	-8,757	26	-23	-330	-455	-438
North Asia - Pacific South East Asia	International	15.9%	8.6%	-59.9%	-88.9%	-88.6%	674	-376	-3,036	-3,900	-3,754	174	-97	-784	-1,007	-970
Pacific South East Asia	Domestic	-1.2%	0.5%	-26.2%	-87.5%	-83.7%	76	-603	-10,317	-23,909	-21,515	5	-37	-632	-1,465	-1,318
South America	Domestic	-7.2%	-5.1%	-35.7%	-94.5%	-93.5%	-869	-796	-6,044	-12,841	-13,061	-73	-67	-510	-1,084	-1,102
South West Asia	Domestic	-5.5%	0.5%	-27.4%	-98.7%	-94.1%	-760	-154	-4,870	-12,757	-13,214	-47	-9	-298	-782	-810
<b>Domestic</b>		-1.3%	-14.5%	-30.4%	-73.2%	-71.0%	-3,286	-38,848	-114,693	-192,248	-184,491	-153	-3,157	-10,295	-17,226	-16,547
<b>International</b>		1.8%	-5.0%	-46.2%	-93.4%	-93.0%	4,893	-12,841	-87,807	-156,064	-157,312	1,098	-2,621	-15,876	-27,717	-27,523
<b>Total</b>		-0.1%	-10.6%	-36.9%	-81.7%	-80.3%	1,607	-51,689	-202,500	-348,312	-341,803	946	-5,778	-26,172	-44,943	-44,070

\* May results are tentative



## Appendix E: Airline Financial Analysis

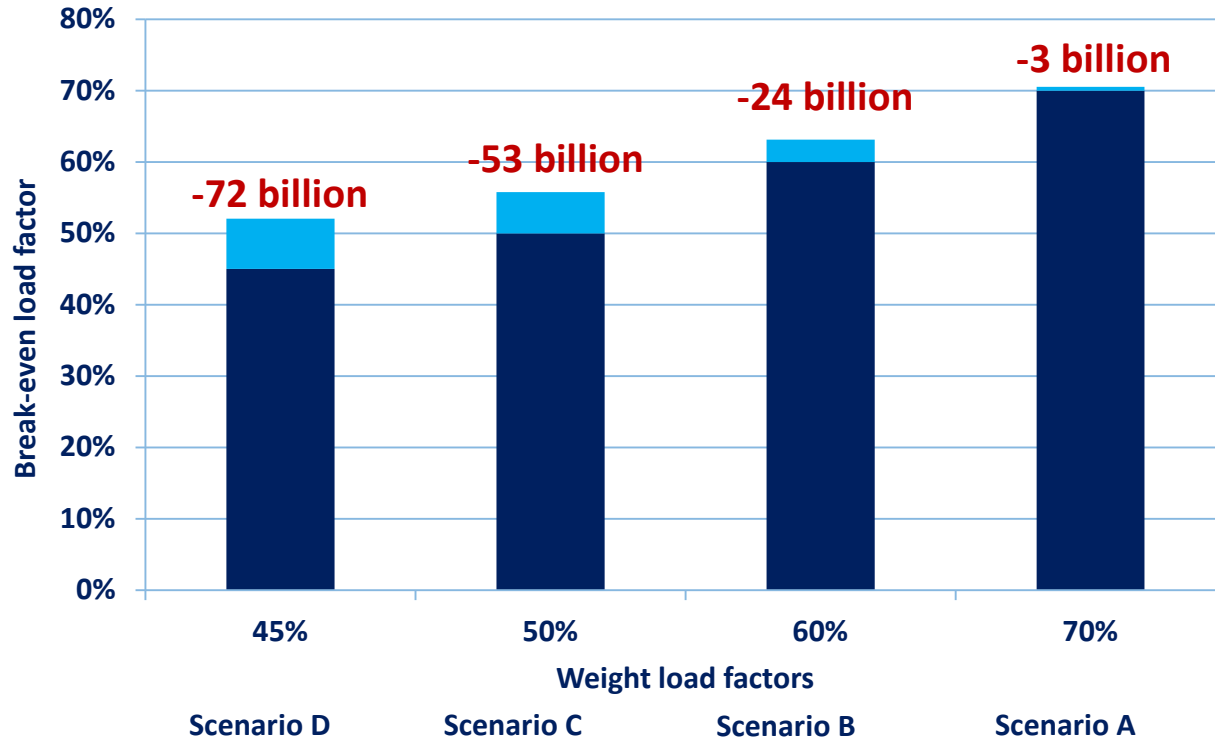
Figures and estimates herein are **subject to substantial changes**, and will be updated with the situation evolving and more information available.

Scenarios are based on the assumption that air traffic, measured in Revenue Tonnes-Kilometres (RTKs, both international and domestic), will **decrease by 50% in 2020** compared to 2019

	<b>Scenario A</b> Weight load factor = 70%	<b>Scenario B</b> Weight load factor = 60%	<b>Scenario C</b> Weight load factor = 50%	<b>Scenario D</b> Weight load factor = 45%
	Load factor remains high, rebound of demand in Q3 and Q4 with severe capacity cuts	Load factor moderate-high and rebound during Q4, with capacity cuts in all regions	Low load factor and moderate return of normal capacity in Q3 and Q4	Low load factors (social distancing) and airlines increase capacity in Q2 2020
<b>Total capacity reduction</b>	-51%	-42%	-31%	-23%
<b>Fuel costs (USD, billion)</b> <i>Oil price: 49% decrease compared to 2019 levels</i>	46	54	65	72
<b>Break-even weight load factor</b> <i>(excluding depreciation and amortization costs)</i>	70.5%	63.1%	55.8%	52.1%



# Airlines close to break even as load factor increases



Operating loss  
Excluding  
depreciation and  
amortizations  
costs

Difference between  
load factor and break-  
even load factors in  
each scenario



## Appendix F: Summary of Analysis by Other Organizations



## ACI: Airport would lose USD 97.4 billion revenues in 2020

Region	Passenger number - both international and domestic for full year 2020		Airport revenue - both aeronautical and non-aeronautical for full year 2020	
	million and % change from 2020 "business as usual" baseline scenario		USD billion and % change from 2020 "business as usual" baseline scenario	
Africa	-114	-47.3%	-2.2	-51.2%
Asia/Pacific	-1,797	-52.9%	-29.4	-58.9%
Europe	-1,416	-57.1%	-37.1	-62.6%
Latin America/Caribbean	-289	-44.2%	-5.3	-50.5%
Middle East	-201	-46.9%	-7.0	-53.0%
North America	-859	-41.1%	-16.4	-47.3%
<b>Total</b>	<b>-4,676</b>	<b>-50.4%</b>	<b>-97.4</b>	<b>-56.7%</b>

<https://aci.aero/wp-content/uploads/2020/05/200505-Third-Economic-Impact-Bulletin-FINAL.pdf>



# IATA: Airlines would lose USD 314 billion revenues under “3-month lock-down + recession” scenario

The analytical difference between ICAO and IATA estimates:

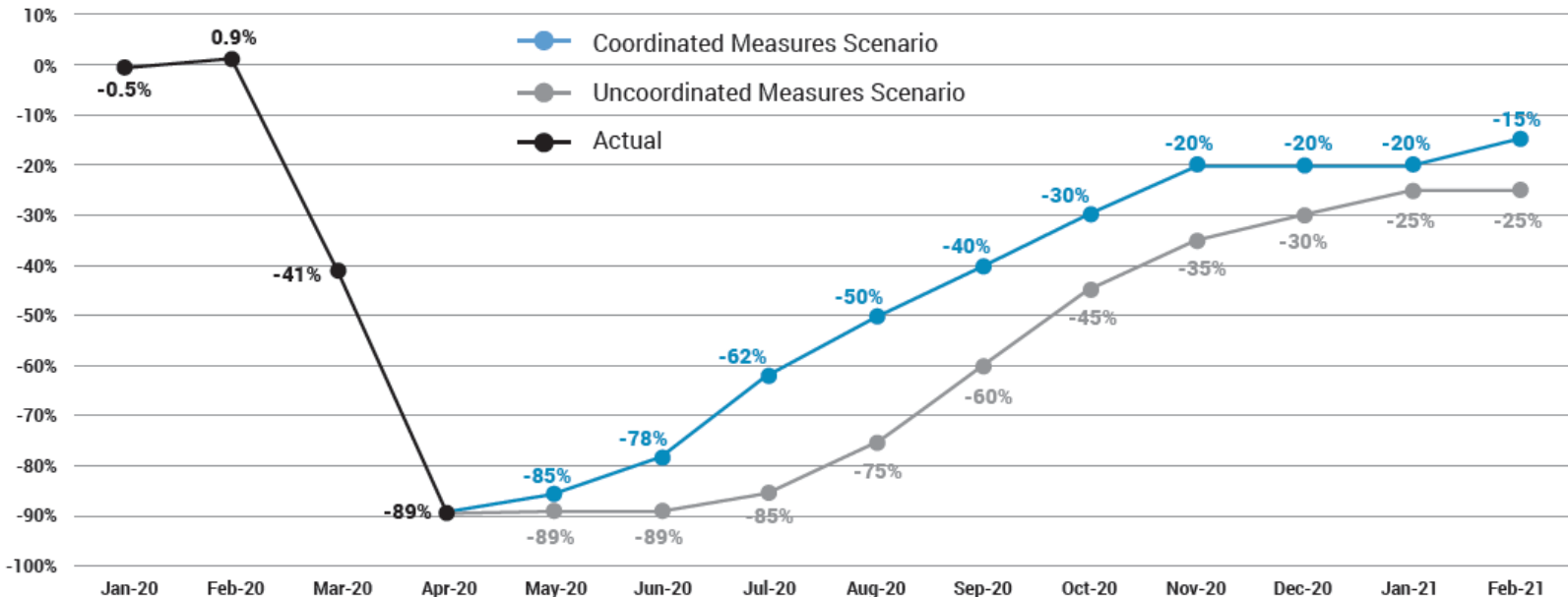
- **Regional break-down:** by all traffic from States in each region (ICAO) vs. region of airline registration (IATA)
- **Baseline:** originally-planned i.e. 2020 business as usual scenario (ICAO) vs. 2019 level with 2020 airline schedules (IATA)

Region of airline registration	Revenue Passenger Kilometres (RPKs) - both international and domestic for full year 2020	Gross passenger revenue - both international and domestic for full year 2020
	year-on-year % change from 2019 level	USD billion, compared to 2019 level
Africa	-51%	-6
Asia/Pacific	-50%	-113
Europe	-55%	-89
Latin America/Caribbean	-49%	-18
Middle East	-51%	-24
North America	-36%	-64
<b>Total</b>	<b>-48%</b>	<b>-314</b>

<https://www.iata.org/en/iata-repository/publications/economic-reports/covid-fourth-impact-assessment/>

# EUOCONTROL: A loss of € 110 billion for airlines, airports and ANSPs in Europe in 2020

EUROCONTROL Draft Traffic Scenarios - 24 April 2020 (base year 2019)

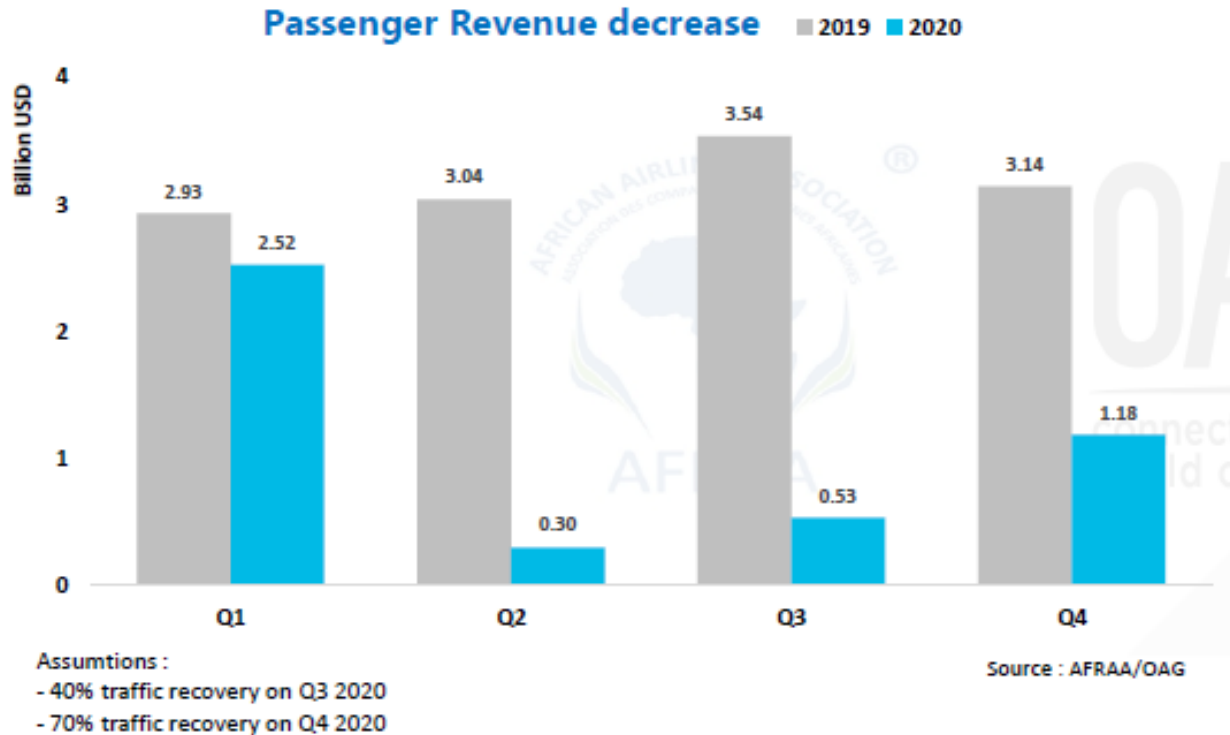


The Coordinated Measures Scenario envisages a loss of 45% of flights (5 million) in 2020, while the Uncoordinated Measures Scenario would result in the loss of 57% of flights (6.2 million).

<https://www.eurocontrol.int/covid19#traffic-scenarios>



# AFRAA: African Airlines would lose USD 8.1 billion passenger revenues in 2020

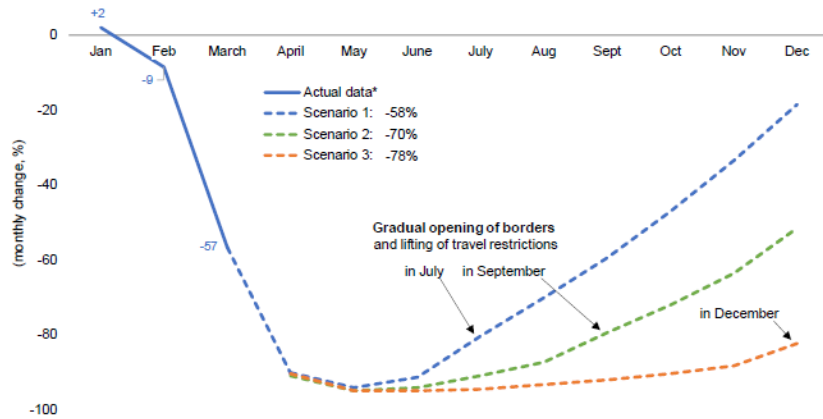


AFRAA's estimates (USD 8.1 billion loss) is greater than IATA's estimates (USD 6 billion loss). Both estimates are for airlines registered in Africa.

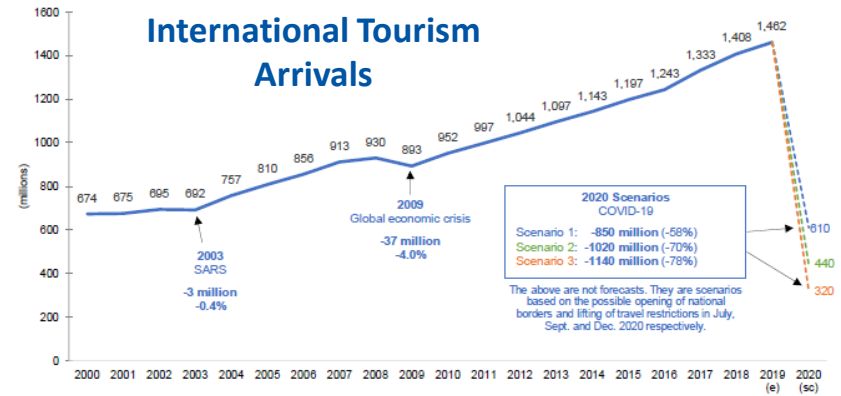
<http://afraa.org/wp-content/uploads/2020/06/CoVID-19-Impact-assessment.pdf>

# UNWTO: A loss of USD 910 to 1,170 billion in international tourism receipts in 2020

## Three scenarios dependent upon re-opening of borders International Tourism Arrivals (year-on-year % change from 2019 level)



<https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-05/Barometer%20-%20May%202020%20-%20Short.pdf>





## 2020 forecasts – COVID-19 impact on travel and tourism sector

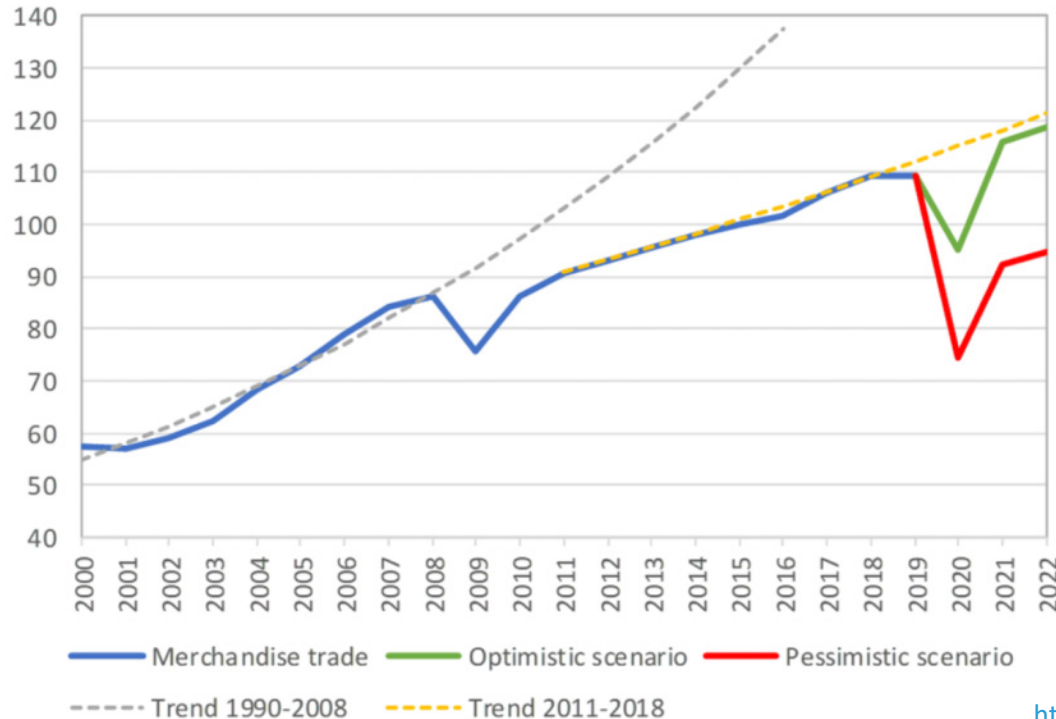
Region	Potential Total Job Losses (million)	Total GDP Loss (USD billion*)
Africa	-7.6	-52.8
Asia/Pacific	-63.4	-1,041.0
Europe	-13.0	-708.5
Latin America/Caribbean	-5.9	-110.2
Middle East	-2.6	-96.2
North America	-8.2	-680.7
<b>Total</b>	<b>-100.8</b>	<b>-2689.4</b>

\* based on 2019 prices and exchange rates

<https://wttc.org/About/News-Media/Press-Releases>

Index, 2015=100

**World merchandise trade volume, 2000-2022**



- ❑ **World merchandise trade is set to plummet by between 13 and 32% in 2020** due to the COVID-19 pandemic.
- ❑ **A 2021 recovery** in trade is expected, but dependent on the duration of the outbreak and the effectiveness of the policy responses.
- ❑ **Nearly all regions will suffer double-digit declines in trade volumes in 2020**, with exports from North America and Asia hit hardest.

[https://www.wto.org/english/news\\_e/pres20\\_e/pr855\\_e.htm](https://www.wto.org/english/news_e/pres20_e/pr855_e.htm)

# IMF: Global economy is projected to contract sharply by -3% to -5.2% in 2020

The Projections assume that the pandemic fades in the second half of 2020 and containment efforts can be gradually unwound

Real GDP (Percent change from previous year)	IMF			World Bank		
	2019	2020	2021	2019	2020	2021
World	2.9	-3.0	5.8	2.4	-5.2	4.2
Advanced economies	1.7	-6.1	4.5	1.6	-7.0	3.9
United States	2.3	-5.9	4.7	2.3	-6.1	4.0
Euro Area	1.2	-7.5	4.7	1.2	-9.1	4.5
Japan	0.7	-5.2	3.0	0.7	-6.1	2.5
Emerging market and developing economies	3.7	-1.0	6.6	3.5	-2.5	4.6
Emerging and Developing Asia	5.5	1.0	8.5			
East Asia and Pacific				5.9	0.5	6.6
China	6.1	1.2	9.2	6.1	1.0	6.9
South Asia				4.7	-2.7	2.8
India	4.2	1.9	7.4	4.2	-3.2	3.1
Emerging and Developing Europe	2.1	-5.2	4.2			
Europe and Central Asia				2.2	-4.7	3.6
Russia	1.3	-5.5	3.5	1.3	-6.0	2.7

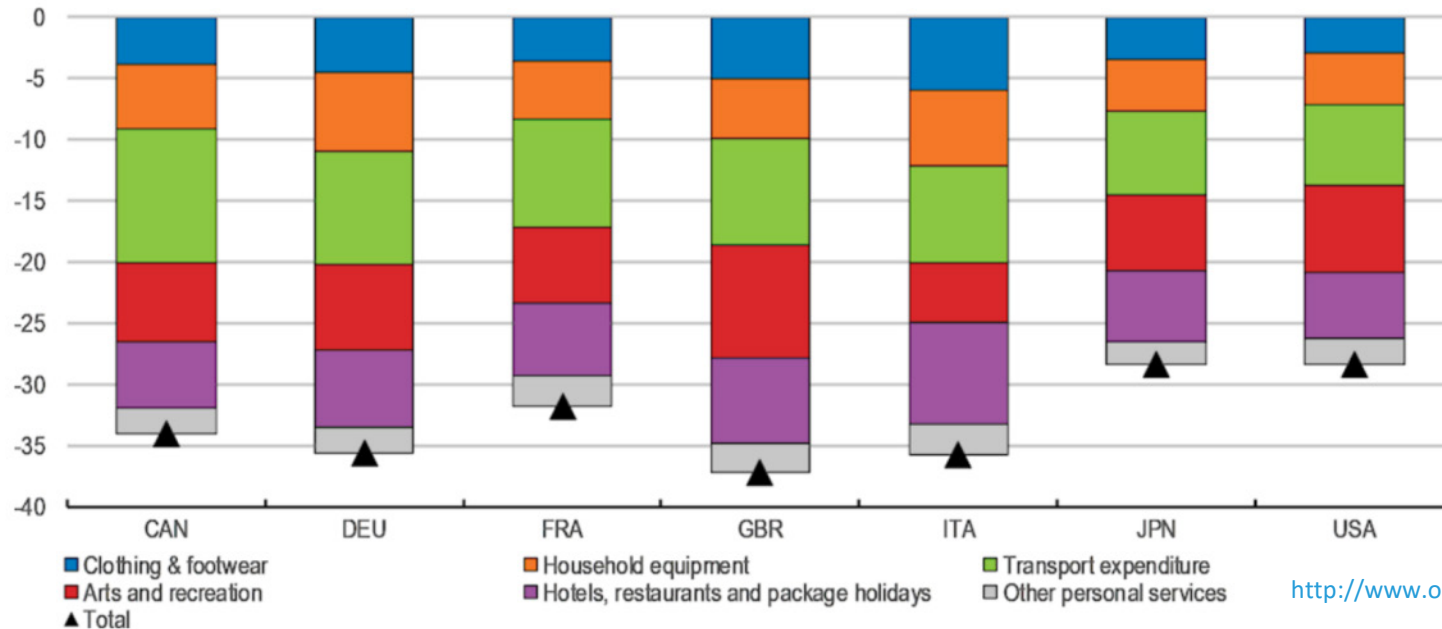
Real GDP (Percent change from previous year)	IMF			World Bank		
	2019	2020	2021	2019	2020	2021
Emerging market and developing economies						
Middle East and Central Asia	1.2	-2.8	4.0			
Middle East and North Africa				-0.2	-4.2	2.3
Saudi Arabia	0.3	-2.3	2.9	0.3	-3.8	2.5
Sub-Saharan Africa	3.1	-1.6	4.1	2.2	-2.8	3.1
Nigeria	2.2	-3.4	2.4	2.2	-3.2	1.7
South Africa	0.2	-5.8	4.0	0.2	-7.1	2.9
Latin America and the Caribbean	0.1	-5.2	3.4	0.8	-7.2	2.8
Brazil	1.1	-5.3	2.9	1.1	-8.0	2.2
Mexico	-0.1	-6.6	3.0	-0.3	-7.5	3.0
High-income countries				1.7	-6.8	3.8
Developing countries				3.7	-2.4	4.7
Low-income countries	5.1	0.4	5.6	5.0	1.0	4.6

\* IMF and World Bank use different Region/State classification; 2019: estimates; 2020 and 2021: projections

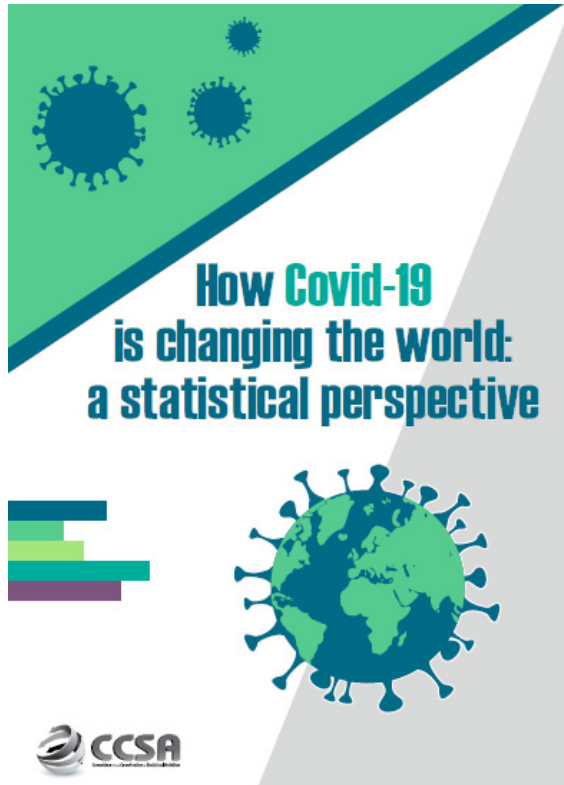
<https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>  
<https://www.worldbank.org/en/publication/global-economic-prospects>

# OECD: Sharp decrease in consumers' expenditures for air travel due to containment measures

The potential initial impact of partial or complete shutdowns on private consumption in the G7 economies  
Per cent of total consumers' expenditure



<http://www.oecd.org/coronavirus/en/>



## How Covid-19 is changing the world: a statistical perspective

The new report will be published by the Committee for the Coordination of Statistical Activities (CCSA) under the auspice of the UN-DESA

### ECONOMIC

#### Aviation industry facing deepest crisis ever in history

The aviation industry bears the weight of the consequences of the COVID-19 outbreak heavier than other industries as its "raison d'être" is the transport of people and goods all across the globe for travel, tourism, business and trade.

<https://unstats.un.org/unsd/ccsa/documents/covid19-report-ccsa.pdf>



North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



THANK YOU

<https://www.icao.int/sustainability/Pages/Economic-Impacts-of-COVID-19.aspx>

<https://www.icao.int/Newsroom/Pages/Billion-fewer-international-air-travellers-this-year-according-to-latest-ICAO-forecast.aspx>

<https://www.icao.int/COVID-19/Pages/default.aspx>

<http://www.capsca.org/CoronaVirusRefs.html>

<https://www.icao.int/sustainability/Pages/Air-Traffic-Monitor.aspx>