Impact of COVID-19 on CORSIA

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How did we get here?

1995
UNFCCC unable to reach agreement on how to allocate emissions of international transport.

2008
ICAO inaction. EU puts aviation in EU-ETS from 2013.

2012
Airlines lobby US Congress which enacts EU ETS Prohibition Act. Trade war if EU goes ahead.

1997
At airlines’ request, COP asks ICAO to act.

2009-2010
Airlines sue to stop EU; IATA calls for cap on int’l emissions from 2020 (carbon-neutral growth from 2020).

2013
EU “stops the clock” on ETS pending ICAO action.

2016
As requested by airlines, ICAO adopts CORSIA, sets baseline at 2019-2020 average despite warnings of risks of using future rather than historical base years.
CORSIA’s Offsetting Formula

ICAO Resolution Paragraph 11:

“Recalls its decision at the 39th Session that the amount of CO2 emissions required to be offset by an aeroplane operator in a given year from 2021 is calculated every year as follows:

A. an aeroplane operator’s offset requirement = [% Sectoral x (an aeroplane operator’s emissions covered by CORSIA in a given year x the sector’s growth factor in the given year x that aeroplane operator’s growth factor in the given year);

B. Where the sector’s growth factor = (total emissions covered by CORSIA in a given year – average of total emissions covered by CORSIA between 2019 and 2020) / total emissions covered by CORSIA in the given year
EDF’s Assumptions

**# Numbers**

According to the most recent ICAO Council “Global Environmental Trends” document, emissions in 2019 were approximately 555 MMT (million metric tonnes) of CO2.

**Coverage**

We estimate that, during the Pilot Phase (2021-2023) and phase 1 (2024-2026), participation will cover roughly 60% of sectoral emissions above 2020 levels; over the full program (2021-2035), participation will cover roughly 80%.

**Base Case**

Using the Trends’ “Low Aircraft Technology” scenario, we calculate a Pre-Covid19 Pilot Phase Anticipated Demand with 2019-2020 Baseline of 78 MMT for the covered routes (2360 MMT for full program demand).
“ICAO has estimated that aviation will have to offset about 2.5 billion tonnes of CO₂ between 2021 and 2035.”

(IAAPA, 2019)
CORSIA Post-COVID Demand

Emissions Trajectories under Five COVID Scenarios:
V, V, U, L, V
Scenario 1: The “V”. Emissions rebound fully by 2021 and return to a BAU trajectory
Scenario 2: “V”. Emissions rebound to 2013 levels in 2021 with subsequent year on year growth
Scenario 3: The “U”. Emissions rebound slowly to 2019 levels in 2024 with subsequent year on year growth.
Scenario 4: The “L”. Emissions fall and do not rebound, with minimal growth post-2021
Scenario 5: The “✓”. Emissions overshoot pre-COVID BAU predictions
S1: The “V”. Full, Fast Emissions Rebound

S2: The “V”. Slightly Attenuated Rebound, Dampened Long Term Growth

S3: The “U”. Slow Recovery, Dampened Long Term Growth

S4: The “L”. Emissions Fall, then Level Off

S5: The “v”. Emissions overshoot pre-COVID BAU predictions
CORSIA’s Pilot Phase Flexibility Mechanism (PPFM)

ICAO Resolution paragraph 11(e):

“where the % sector and % Individual will be applied as follows:

i) from 2021 through 2023, 100% sectoral and 0% individual, though each participating State may choose during this Pilot Phase whether to apply this to:

A an aeroplane operator’s emissions covered by CORSIA in a given year, as stated above, or

B an aeroplane operator’s emissions covered by CORSIA in 2020;”
CORSIA Emissions Unit Demand: Five Post-COVID Scenarios Pilot Phase (2021-2023)
Scenario 1

The “V”: Full, Fast Emissions Rebound
The “V”: Full recovery by 2021, Baseline 2019-2020: PPFM modulates the increase in offset obligation

Scenario 1: Full, Fast, Emissions Rebound

![Graph showing different scenarios of emissions recovery](image.png)

- **Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 1**
  - **2019-2020 Baseline**
    - High: 158
    - Severe: 335
    - Extreme: 437
  - With Flexibility
    - High: 125
    - Severe: 157
    - Extreme: 123

Legend:
- Red: Pre-COVID Anticipated Demand
- Light blue: Additional Offset Obligation, High Impact Scenario
- Blue: Additional Offset Obligation, Severe Impact Scenario
- Dark blue: Additional Offset Obligation, Extreme Impact Scenario
- Light gray: High Impact Emissions
- Blue: Severe Impact Emissions
- Dark gray: Extreme Impact Emissions
- Dashed line: BAU
Scenario 1: Full, Fast Emissions Rebound + Flexibility Mechanism

Anticipated CORSIA Pilot Phase (2021-2023)

- High
- Severe
- Extreme

Baseline 2019-2020:
- High: 158
- Severe: 335
- Extreme: 437

With Flexibility:
- High: 125
- Severe: 157
- Extreme: 123

Applying the Given Year 2020 Flexibility Mechanism in the Pilot Phase (2021-2023) allows airlines to reduce their obligation from the baseline amount (dotted lines) to the shaded area.

The “V”: Full recovery by 2021, Baseline 2019-2020: PPFM modulates the increase in offset obligation.
The “V”: Full recovery by 2021, Baseline 2019 only: Offset demand would increase 15%

Emissions Gap if Baseline Change to 2019
Scenario 1: Full, Fast Emissions Rebound

Anticipated CORSIA Pilot Phase Demand Pre-COVID19
= 78 MtCO₂

Anticipated CORSIA Pilot Phase Demand in Scenario 1
= 92 MtCO₂
In “V” Scenario 1, with original 2019-2020 Baseline, PPFM modulates offset obligation.
Scenario 2

The “V”: Slightly Attenuated Rebound, Dampened Long Term Growth
Scenario 2: "V", Baseline 2019-2020: PPFM reduces offset obligation to nearly pre-COVID levels

Scenario 2: Slightly Attenuated Rebound, Dampened Long Term Growth

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 2

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020</td>
<td>19</td>
<td>195</td>
<td>298</td>
</tr>
<tr>
<td>Baseline</td>
<td>17</td>
<td>105</td>
<td>96</td>
</tr>
<tr>
<td>With Flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scenario 2: “V”, Baseline 2019-2020: PPFM reduces offset obligation to nearly pre-COVID levels

Scenario 2: Slightly Attenuated Rebound, Dampened Long Term Growth + Flexibility Mechanism

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 2

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Severe</th>
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</tr>
</thead>
<tbody>
<tr>
<td>2019-2020 Baseline</td>
<td>19</td>
<td>195</td>
<td>298</td>
</tr>
<tr>
<td>With Flexibility</td>
<td>17</td>
<td>105</td>
<td>96</td>
</tr>
</tbody>
</table>

- Pre-COVID Anticipated Demand
- Additional Offset Obligation, High Impact Scenario
- Additional Offset Obligation, Severe Impact Scenario
- Additional Offset Obligation, Extreme Impact Scenario
- High Impact Emissions
- Severe Impact Emissions
- Extreme Impact Emissions
- BAU
The “V”: Dampened emissions, Baseline 2019 only: Offset obligation would vanish until 2024

Emissions Gap if Changed to 2019 Baseline
Scenario 2: Slightly Attenuated Rebound, Dampened Long Term Growth

- Anticipated CORSIA Pilot Phase Demand Pre-COVID19 = 78 MtCO₂
- Anticipated CORSIA Pilot Phase Demand in Scenario 2 = 0 MtCO₂

Projected Offset Obligation Pre-COVID
Additional Obligation if Baseline Changed to 2019
High Impact Emissions
Severe Impact Emissions
Extreme Impact Emissions
Projected Offset Obligation Pre-COVID
2019 Baseline
The “V”: PPFM reduces offset obligation to pre-COVID levels; 2019-only baseline eliminates offset obligation

Scenario 2: Slightly Attenuated Rebound, Dampened Long Term Growth
2019-2020 Baseline Obligation vs. 2019 Changed Baseline Obligation

- Pre-COVID Anticipated Demand
- Pilot Phase Demand Under 2019-2020 Baseline
- Pilot Phase Demand Under 2019-2020 Baseline + PPFM
- Pilot Phase Demand Under 2019 Baseline

Base Case: 78 Million tCO₂
High Impact: 95 Million tCO₂
Severe Impact: 272 Million tCO₂
Extreme Impact: 374 Million tCO₂
Scenario 3

The “U”: Slow Recovery, Dampened Long Term Growth
The “U”: Baseline 2019-2020: Pilot Phase Offset Obligation Greatly Reduced

Scenario 3: Slow Recovery, Dampened Long Term Growth

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 3

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020</td>
<td>10</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>Baseline</td>
<td>9</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

The "U": Baseline 2019-2020: Pilot Phase Offset Obligation Greatly Reduced
The “U”: Baseline 2019-2020: Pilot Phase Offset Obligation Greatly Reduced

Scenario 3: Slow Recovery, Dampened Long Term Growth + Flexibility Mechanism

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 3

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
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<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020 Baseline</td>
<td>10</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>With Flexibility</td>
<td>9</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

The “U”: Baseline 2019-2020:

Pilot Phase Offset Obligation Greatly Reduced

Scenario 3: Slow Recovery, Dampened Long Term Growth + Flexibility Mechanism

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 3

<table>
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<th>Year</th>
<th>High</th>
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<tbody>
<tr>
<td>2019-2020 Baseline</td>
<td>10</td>
<td>22</td>
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</tr>
<tr>
<td>With Flexibility</td>
<td>9</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>
The “U”: Baseline 2019-only: Offset Obligation would vanish until 2025

Emissions Gap if Changed to 2019 Baseline
Scenario 3: Slow Recovery, Dampened Long Term Growth

Anticipated CORSIA Pilot Phase Demand
Pre-COVID19
= 78 MtCO₂

Anticipated CORSIA Pilot Phase Demand in Scenario 3
= 0 MtCO₂

Projected Offset Obligation Pre-COVID
Additional Obligation if Baseline Changed to 2019
High Impact Emissions
Severe Impact Emissions
Extreme Impact Emissions
Projected Offset Obligation Pre-COVID
2019 Baseline
The “U”: Baseline 2019-only: Pilot Phase offset obligation would vanish

Scenario 3: Slow Recovery, Dampened Long Term Growth
2019-2020 Baseline Obligation vs. 2019 Changed Baseline Obligation

Pre-COVID Anticipated Demand
Pilot Phase Demand Under 2019-2020 Baseline
Pilot Phase Demand Under 2019-2020 Baseline + PPFM
Pilot Phase Demand Under 2019 Baseline

Million tCO$_2$

Base Case
High Impact
Severe Impact
Extreme Impact

78
10 9 0
22 14 0
29 12 0
If baseline were changed to 2019, offset obligation in the “U” Scenario would be delayed beyond the Pilot Phase.

**Scenario 3: (“U”)**

- **Level of COVID Impact**
  - High Impact: 4 years
  - Severe Impact: 5 years
  - Extreme Impact: 5 years

- **Years with No Offset Obligation**
  - 2025

- **First Full Year of Offset Obligation**
  - 2026
Scenario 4

The “L”: Emissions Fall, then Level Off
### The L: Emissions Level Off. Under Baseline 2019-2020, no offset obligations

#### Scenario 4: Emissions Fall, then Level Off

#### Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 4

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Flexibility</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*These numbers reflect 100% coverage, while the shaded area in the chart reflects 60% coverage*

#### Chart Details:
- **Pre-COVID Anticipated Demand**
- **Additional Offset Obligation, High Impact Scenario**
- **Additional Offset Obligation, Severe Impact Scenario**
- **Additional Offset Obligation, Extreme Impact Scenario**
- **High Impact Emissions**
- **Severe Impact Emissions**
- **Extreme Impact Emissions**
- **BAU**
The L: Emissions Level Off. Under Baseline 2019-2020, no offset obligations

Scenario 4: Emissions Fall, then Level Off + Flexibility Mechanism

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 4

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020 Baseline</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>With Flexibility</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*These numbers reflect 100% coverage, while the shaded area in the chart reflects 60% coverage.
The “L”: Emissions Level Off. Baseline 2019-only: Offset obligations would vanish beyond the Pilot Phase

Anticipated CORSIA Pilot Phase Demand
Pre-COVID19 = 78 MtCO₂

Anticipated CORSIA Pilot Phase Demand in Scenario 4 = 0 MtCO₂
Regardless of baseline, there will be no offset obligation in the Pilot Phase.

Scenario 4: Slow Recovery, Dampened Long Term Growth
2019-2020 Baseline Obligation vs. 2019 Changed Baseline Obligation

- Pre-COVID Anticipated Demand
- Pilot Phase Demand Under 2019-2020 Baseline
- Pilot Phase Demand Under 2019-2020 Baseline + PPFM
- Pilot Phase Demand Under 2019 Baseline
Scenario 5

The Overshoot “✓”: Emissions Exceed Pre-COVID Projections
The “V”: When emissions overshoot pre-COVID projections, all scenarios see increased obligation

Scenario 5: Emissions Exceed Pre-COVID Projections

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 5

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020 Baseline</td>
<td>205</td>
<td>382</td>
<td>485</td>
</tr>
<tr>
<td>With Flexibility</td>
<td>156</td>
<td>172</td>
<td>131</td>
</tr>
</tbody>
</table>

*These numbers reflect 100% coverage, while the shaded area in the chart reflects 60% coverage.
The “✓”: When emissions overshoot pre-COVID projections, all scenarios see increased obligation

Scenario 5: Emissions Exceed Pre-COVID Projections + Flexibility Mechanism

Anticipated CORSIA Pilot Phase (2021-2023) Demand in Scenario 5

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020 Baseline</td>
<td>205</td>
<td>382</td>
<td>485</td>
</tr>
<tr>
<td>With Flexibility</td>
<td>156</td>
<td>172</td>
<td>131</td>
</tr>
</tbody>
</table>

*These numbers reflect 100% coverage, while the shaded area in the chart reflects 60% coverage.
The “✓”: When emissions overshoot pre-COVID projections, a 2019 baseline would result in increased obligation

Anticipated CORSIA Pilot Phase Demand Pre-COVID19 = 78 MtCO₂

Anticipated CORSIA Pilot Phase Demand in Scenario 5 = 139 MtCO₂
The “✓”: PPFM would mitigate offset obligation commensurate with 2019-only baseline

Scenario 5: Emissions Overshoot
2019-2020 PPFM Obligation vs. 2019 Changed Baseline Obligation

- Pre-COVID Anticipated Demand
- Pilot Phase Demand Under 2019-2020 Baseline
- Pilot Phase Demand Under 2019-2020 Baseline + PPFM
- Pilot Phase Demand Under 2019 Baseline

Base Case: 78
High Impact: 205
Severe Impact: 382
Extreme Impact: 485

2019-2020 PPFM Obligation vs. 2019 Changed Baseline Obligation
# Pilot Phase Post-COVID Scenarios (Pre-COVID BAU Demand=78)*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>BAU*</th>
<th>2019-2020 Baseline*</th>
<th>2019 Baseline*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Severe</td>
</tr>
<tr>
<td>S1 (“V”)</td>
<td>78</td>
<td>158</td>
<td>335</td>
</tr>
<tr>
<td>S1+Flexibility</td>
<td>-</td>
<td>125</td>
<td>157</td>
</tr>
<tr>
<td>S2 (“V”)</td>
<td>-</td>
<td>19</td>
<td>195</td>
</tr>
<tr>
<td>S2+Flexibility</td>
<td>-</td>
<td>17</td>
<td>105</td>
</tr>
<tr>
<td>S3 (“U”)</td>
<td>-</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>S3+Flexibility</td>
<td>-</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>S4 (“L”)</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S4+Flexibility</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S5 (“V”)</td>
<td>-</td>
<td>205</td>
<td>382</td>
</tr>
<tr>
<td>S5+Flexibility</td>
<td>-</td>
<td>156</td>
<td>172</td>
</tr>
</tbody>
</table>

* All measurements in MMTCO₂
## Pilot Phase Post-COVID Scenarios Percent Change Relative to Pre-COVID BAU Demand of 78 MMT

<table>
<thead>
<tr>
<th>Scenario</th>
<th>BAU</th>
<th>2019-2020 Baseline</th>
<th>2019 Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Severe</td>
</tr>
<tr>
<td>S1 (&quot;V&quot;)</td>
<td>78</td>
<td>+103%</td>
<td>+330%</td>
</tr>
<tr>
<td>S1+Flexibility</td>
<td>-</td>
<td>+61%</td>
<td>+102%</td>
</tr>
<tr>
<td>S2 (&quot;V&quot;)</td>
<td>-</td>
<td>-75%</td>
<td>+150%</td>
</tr>
<tr>
<td>S2+Flexibility</td>
<td>-</td>
<td>-78%</td>
<td>+35%</td>
</tr>
<tr>
<td>S3 (&quot;U&quot;)</td>
<td>-</td>
<td>-87%</td>
<td>-72%</td>
</tr>
<tr>
<td>S3+Flexibility</td>
<td>-</td>
<td>-88%</td>
<td>-82%</td>
</tr>
<tr>
<td>S4 (&quot;L&quot;)</td>
<td>-</td>
<td>-100%</td>
<td>-100%</td>
</tr>
<tr>
<td>S4+Flexibility</td>
<td>-</td>
<td>-100%</td>
<td>-100%</td>
</tr>
<tr>
<td>S5 (&quot;V&quot;)</td>
<td>-</td>
<td>+163%</td>
<td>+391%</td>
</tr>
<tr>
<td>S5+Flexibility</td>
<td>-</td>
<td>+100%</td>
<td>+121%</td>
</tr>
</tbody>
</table>

*All measurements in MMTCO$_2$*
## Full Program Demand Summary

<table>
<thead>
<tr>
<th>Scenario (&quot;V&quot;)</th>
<th>BAU*</th>
<th>2019-2020 Baseline*</th>
<th>2019 Baseline*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Severe</td>
</tr>
<tr>
<td>S1 (&quot;V&quot;)</td>
<td>2360</td>
<td>2893</td>
<td>4073</td>
</tr>
<tr>
<td>% Change</td>
<td></td>
<td>+23%</td>
<td>+73%</td>
</tr>
<tr>
<td>S2 (&quot;V&quot;)</td>
<td>2360</td>
<td>1464</td>
<td>2642</td>
</tr>
<tr>
<td>% Change</td>
<td></td>
<td>-38%</td>
<td>+12%</td>
</tr>
<tr>
<td>S3 (&quot;U&quot;)</td>
<td>2360</td>
<td>1450</td>
<td>2378</td>
</tr>
<tr>
<td>% Change</td>
<td></td>
<td>-39%</td>
<td>+1%</td>
</tr>
<tr>
<td>S4 (&quot;L&quot;)</td>
<td>2360</td>
<td>454</td>
<td>0</td>
</tr>
<tr>
<td>% Change</td>
<td></td>
<td>-81%</td>
<td>-100%</td>
</tr>
<tr>
<td>S5 (&quot;V&quot;)</td>
<td>2360</td>
<td>3772</td>
<td>4952</td>
</tr>
<tr>
<td>% Change</td>
<td></td>
<td>+60%</td>
<td>+110%</td>
</tr>
</tbody>
</table>

*All measurements in MMTCO₂
Q: What about Supply in the Pilot Phase?
A: With 2019-2020 Baseline, Supply is sufficient for Pilot Phase under all Scenarios

<table>
<thead>
<tr>
<th>CORSIA Eligible Supply</th>
<th>386-569 MMT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand (Extreme Scenarios)</td>
<td>474-485 MMT</td>
</tr>
<tr>
<td>Demand (Extreme Scenarios with Flexibility Mechanism)</td>
<td>156-172 MMT</td>
</tr>
</tbody>
</table>

- Supply could increase further as ICAO TAB and Council consider second round of offset program applications for CORSIA Pilot Phase

*Findings from Ecosystem Marketplace’s March 2020 Analysis*
## Pilot Phase Post-COVID Scenarios

### Supply* Relative to Demand

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Supply*</th>
<th>Supply Exceeds Demand</th>
<th>Demand: 2019-2020 Baseline*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td><strong>S1 (&quot;V&quot;)</strong></td>
<td>386 - 569</td>
<td>yes for most</td>
<td>158</td>
</tr>
<tr>
<td>S1+Flexibility</td>
<td>386 - 569</td>
<td>yes</td>
<td>125</td>
</tr>
<tr>
<td><strong>S2 (&quot;V&quot;)</strong></td>
<td>386 - 569</td>
<td>yes</td>
<td>19</td>
</tr>
<tr>
<td>S2+Flexibility</td>
<td>386 - 569</td>
<td>yes</td>
<td>17</td>
</tr>
<tr>
<td><strong>S3 (&quot;U&quot;)</strong></td>
<td>386 - 569</td>
<td>yes</td>
<td>10</td>
</tr>
<tr>
<td>S3+Flexibility</td>
<td>386 - 569</td>
<td>yes</td>
<td>9</td>
</tr>
<tr>
<td><strong>S4 (&quot;L&quot;)</strong></td>
<td>386 - 569</td>
<td>yes</td>
<td>0</td>
</tr>
<tr>
<td>S4+Flexibility</td>
<td>386 - 569</td>
<td>yes</td>
<td>0</td>
</tr>
<tr>
<td><strong>S5 (&quot;J&quot;)</strong></td>
<td>386 - 569</td>
<td>yes for most</td>
<td>205</td>
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<tr>
<td>S5+Flexibility</td>
<td>386 - 569</td>
<td>yes</td>
<td>156</td>
</tr>
</tbody>
</table>

* Supply Scenarios from Ecosystem Marketplace March 2020 Analysis

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* MMTCO₂
“Airline executives have warned of a slow recovery even after the virus is contained and have said demand may not recover to 2019 levels for years.”

“U.S. Airline Shares Tumble as Buffett Sell-Off Adds to Worries,” 4 May 2020

“…the world has changed for the airlines…”

Warren Buffet, 2 May 2020
CORSIA Baseline Conclusions

Key Takeaways:

1. Changing the baseline to 2019 causes offset obligations in the Pilot Phase to vanish in most scenarios.

2. Council has ensured CORSIA ample Pilot Phase supply; Flexibility Mechanism greatly reduces the Pilot Phase offset obligation.

3. Changes to post-Pilot Phase offset obligation largely depend on timing and extent of aviation’s rebound from COVID.

Bottom Line:

A major change to CORSIA’s structure should not be taken in a hurry.

- The question should be considered by ICAO’s 190+ member Assembly at their next regular meeting in 2022, by which time there will be more information about aviation’s rebound.
Thank you!

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