# AVIATION

- 2% of Global CO2 Emissions
- CORSIA International Plan
- Offsetting Scheme
- Goal: Carbon Neutral after 2020 Baseline
- COVID19 Economic Downturn = Pandemic Effect
- Industry “gets new, lower 2019 Baseline”!

# Impact of COVID19 Pandemic On Airline Carbon Emissions

Charlotte King


**CORSIA**

Carbon Offsetting and Reduction Scheme for International Aviation

# Policy Literature Review

Focus on Mitigation Measures

- International vs Domestic
- Regulatory = command & control
- Cap & Trade = market based
- Offsets
- Fuel Tax vs Carbon Tax

- Nationally Determined Contributions (NDCs)

Part of Paris Agreement

# Biggest Emitters

1. United States
2. China - Emerging
3. United Kingdom

# Action Arena – Ostrum's Polycentric Governance

International Air Transport Association (IATA)

No Fuel Tax 1947-2006 + Subsidies

Fox Guarding Hen House = Lack of CSR accountability – very few disclose

Fuel Tax begins 2003

EU ETS – Emissions Trading Scheme = cap/EU only 2013–2020

Linear Reduction – 2064

Predefined CO2 levels

Airlines & Industry

GDP = Growth

GDP

- Developed
- Emerging

- United Nations + SDG 13
- 1997 Kyoto Protocol
- Intergovernmental Panel on Climate Change (IPCC)
  - Reports Aviation 2% Anthropogenic Carbon
- 2013 Paris Agreement
  - Limit Increase 1.5 °C
- The International Civil Aviation Organization (ICAO) establishes
  - Carbon Offsetting and Reduction Scheme CORSIA
  - Important to Certify Offsets to avoid double counting

Carbon Neutral Aviation CO2 Emissions By 2050

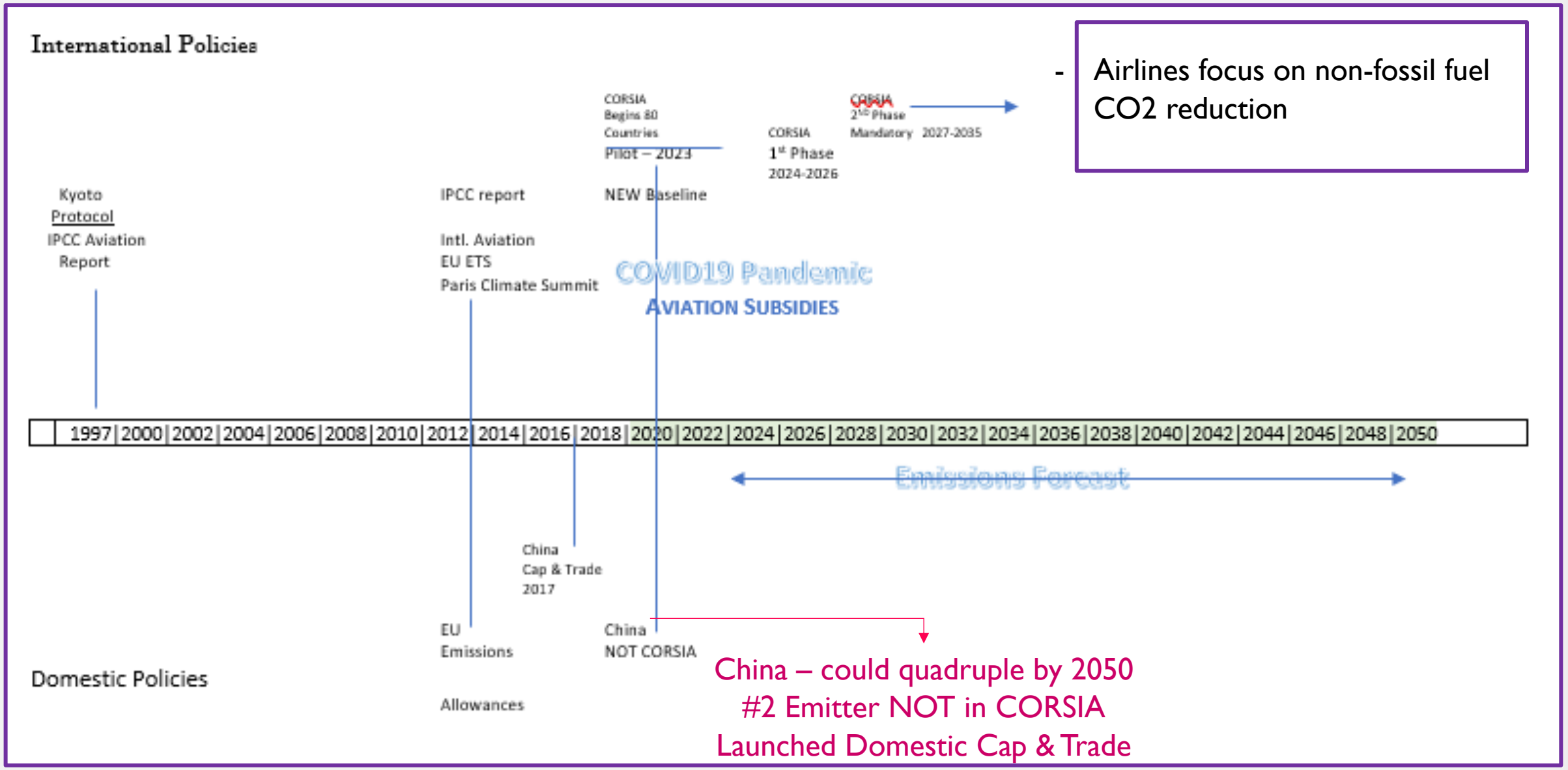
# Policy Considerations


Goal: 2050
Net Zero Aviation
Carbon Emissions


CORSIA CO2
Goal: 2.5 billion tons
2020-2035
80 Countries
Voluntary 2021 – 2027
Mandatory - 2035

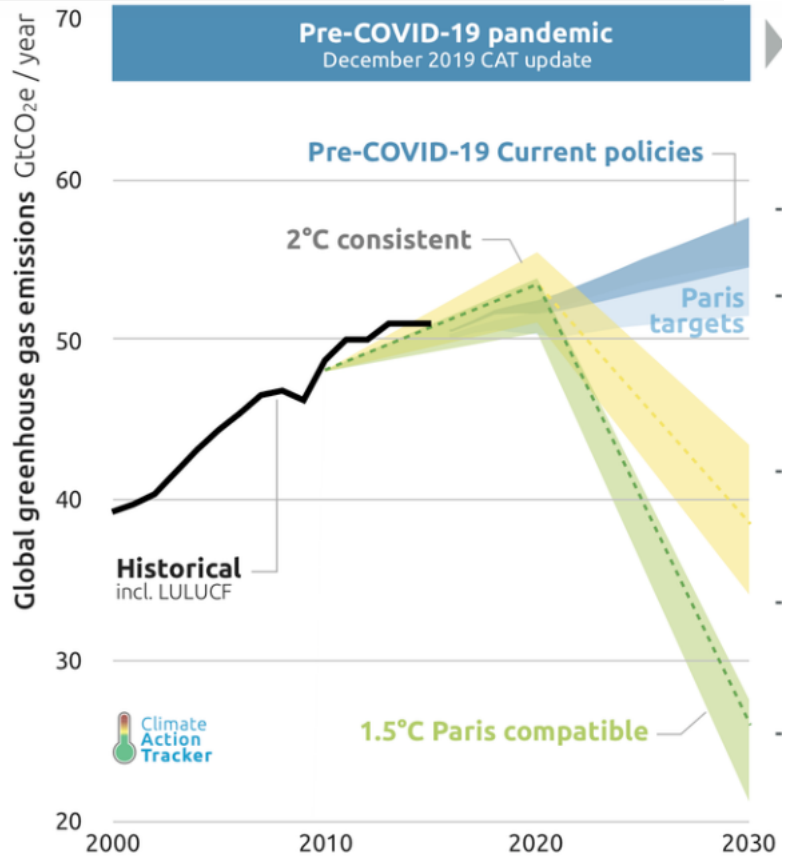

Pandemic Effect
Higher CO2 Baseline
For Emissions
CORSIA Compliance
Weakened

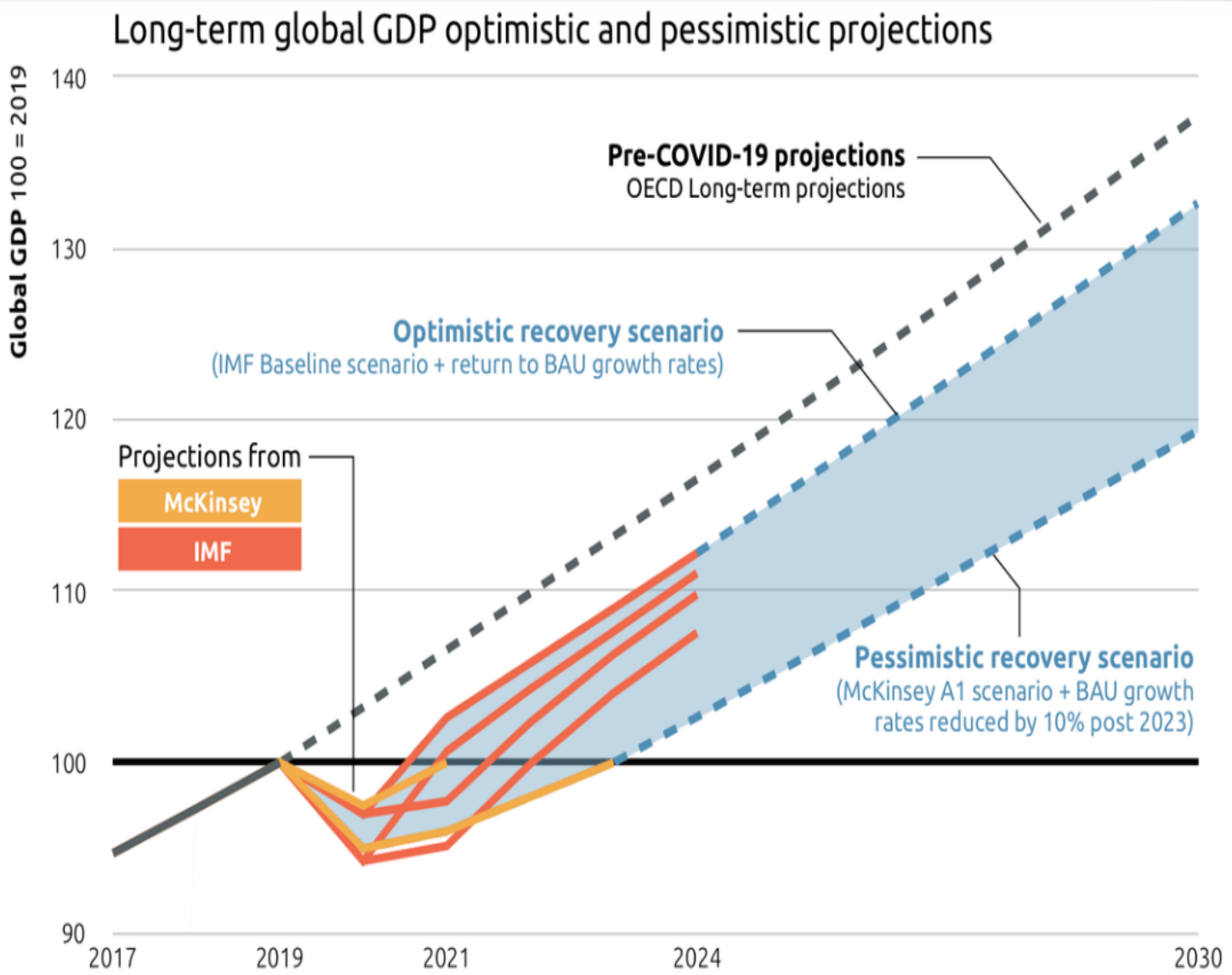
Growth
Shows
Sales



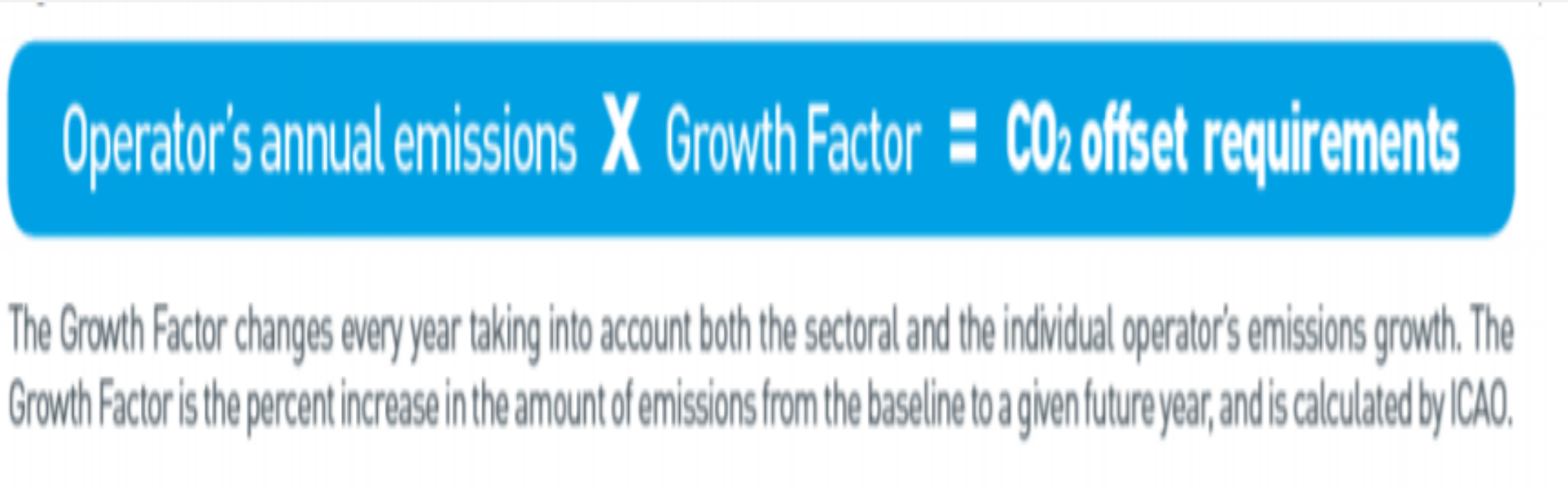

Timeline for Aviation and Carbon Emissions Policies – International & Domestic

# Emissions Forecast – Source: Climate Action Tracker



# Pandemic Effect: CORSIA Calculation




1. IATA/Aviation Industry negotiated lower emissions baseline because of pandemic effect – reduces offsets required to achieve carbon neutrality
2. CORSIA can recalculate growth factor metric annually and sectoral/individual operator's emissions = a floating metric

# Comparison – Policies & Other

## Possible Strategies

### CORSIA Target reduction:

2.5 billion tons of $CO_2$ emissions 2021-2035

+ Nationally Designated Contributions (NDC)

+ Sustainable Aviation Fuels (SAF)

+ 40+ Countries = Cap & Trade Programs

## Best Options: Adaptation

### Policy: Carbon Tax - HIGH

- BUT could also = Distributional Equity Challenges for Emerging Countries

### Increasing alternative transport & subsidies

### Corporate Social Responsibility (CSR)

- Carbon Reporting Transparency & Accountability

### Flight Shaming – Sweden 2019