



IATA Economics' Chart of the Week

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2020 aviation center of gravity briefly jumped 20 years to the future



- The COVID-19 pandemic has brought many changes to aviation, some of them expected to be temporary while other may stay for longer, leading to talks of a new normal. One of the most striking changes has been the rapid recovery and subsequent importance of the Chinese domestic air transport market. In 2019, China domestic represented 9.8% of total global RPKs. In 2020, this became 19.9%.
- A noteworthy related change is the shift in the aviation center of gravity. It is computed by weighting the coordinates of all airports worldwide by the seats they each flew in a given year, to obtain a weighted average set of coordinates. From the [first commercial flight](#) in Tampa in 1914, the center of aviation slowly moved eastwards over time as aviation developed, in particular in Europe. With Asian markets growing rapidly in the 21st century, the center of gravity drifted further east. In 2019, it stood over Egypt, in the [middle of the desert](#). But in 2020, it jumped to [the south of Iran](#). Intriguingly, this is close to the center of gravity expected in 2039 based on our latest [Air Passenger Forecast](#).
- This is mostly a symbolic coincidence, but it highlights how we expect large emerging markets in Asia to become more and more prominent. China is forecast to lose its new status of the world's largest aviation market in 2022, before recovering it around 2025. In 2039, China, India, Indonesia, Japan and Thailand will all belong to the ten largest overall aviation markets globally. In the meantime, mature markets in Europe and North America will slow down and become less central to global air transport.
- The 2020 shift in the aviation center of gravity is likely to be partly reverted once aviation restart outside of China, and it will take many years to come back to such an eastern central point. The crucial difference is that, when it does, it will not only be China domestic, but also countries such as India, Indonesia, Vietnam and their international markets, that will be prominent in global aviation.

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