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## A comparative strategic analysis of China Airlines and EVA Air

Darren Ellis<sup>a\*</sup> & Edgar Jimenez<sup>a</sup>

<sup>a</sup> *Cranfield University, Martell House (Building 300), Cranfield MK43 0AL, United Kingdom*

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### Abstract

The two biggest airlines in Taiwan – China Airlines and EVA Air – face a wide range of similar strategic opportunities and challenges, while also pursuing considerably different strategic priorities in some key areas. This paper conducts a comparative strategic analysis of these two airlines by considering the key success factors (KSFs) of fleet mix and size, international partnerships and cooperation, network scope and global reach, and brand awareness and loyalty. Despite geopolitical restrictions, both carriers have developed sizable fleets, networks and partnerships with a global ambition, effectively creating a duopoly that controls half of the passenger market and almost two-thirds of the cargo market in Taiwan. Their brands are recognized outside Taiwan, although EVA Air enjoys slightly better perception of quality by rating companies and passengers. Yet, external realities have greater potential to determine each airline's future strategic trajectory, rather than internal KSFs. Both airlines help to illustrate the global connectivity that the airline industry can foster and promote, and each provides a counterbalance to regional tensions and divisions by doing so.

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*Keywords:* Strategic analysis; China Airlines; EVA Air; Taiwan aviation; key success factors (KSFs)

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### 1. Introduction

China Airlines (CI) (the recognized flag carrier) and EVA Air (BR) are the two biggest airlines home-based on the island of Taiwan, an internationally recognized part of China, but separately governed since 1949 when nationalist forces retreated to the island as communist forces gained control of the mainland. At its closest point, Taiwan is located 130 kilometers east of mainland China and remains at the epicenter of ongoing tensions between China and the United

\* Corresponding author. Tel.: +44 01234 75 4244

*E-mail address:* [Darren.Ellis@cranfield.ac.uk](mailto:Darren.Ellis@cranfield.ac.uk)

States, the latter being a long-time ally of Taiwan. Despite decades of rising regional tensions, direct commercial airlines were first established between mainland China and Taiwan in 2008 (Chang, Hsu & Lin, 2011), and have only been temporarily suspended in recent years due to the global Covid-19 pandemic.

Investigating China Airlines and EVA Air provides valuable and important key strategic insights into each, and more broadly into the Northeast Asia region where the big three Chinese carriers (Air China, China Southern & China Eastern), along with Korean Air, Japan Airlines (JAL), Cathay Pacific and others, help to create a dynamic and substantial regional airline industry similar only in scale to those in Europe and North America. Northeast Asia is also where two of the world's most significant non-state aviation jurisdictions are located, namely Taiwan and Hong Kong – the latter being the home-base of Cathay Pacific. Macau, though much smaller than these two, also shares the same aviation jurisdictional status. All of this creates a unique regulatory environment that may shed light on issues faced by airlines across the world.

China Airlines and EVA Air help to reveal the promise of global commercial aviation in connecting the world and promoting the expansion of trade and tourism. Even so, they also help to demonstrate the fragility at times of the international air transport system, including how air space sovereignty and geopolitics play central roles in determining where, when and how often airlines can fly outside their home-base (Ellis, 2018). Learning more about these two airlines also encourages a greater appreciation for the key external forces and factors that act to impact and shape the key success factors (KSFs) which underpin contemporary full-service international carriers, and indeed all airlines to varying degrees across the globe.

## 2. Comparative strategic analysis

This paper is based on a comparative strategic analysis approach whereby China Airlines and EVA Air are compared and contrasted across a range of key success factors (KSFs). A wide array of research into the airline industry employs KSFs to scaffold investigations, including to benchmark green airlines (Abdullah, Chew & Hamid, 2016), to assess comparative airline performance (Min & Joo, 2016), and to look at the air cargo market (Merkert, Van de Voorde & de Wit, 2017). The analysis here is termed 'strategic' meaning an assessment which takes place above and beyond the day-to-day operational level of running an airline; therefore, a vantagepoint that adopts a bigger picture, longer-term view of an airline's current context and future prospects.

The selected four main KSFs in this paper covering fleet, international airline partnerships, global network and brand, reflect a core list of relevant and valuable considerations when comparing airlines with each other. This list is not presented here as exhaustive or universally applicable, but rather as likely to generate meaningful key insights within the scope and focus of research on airline management. This paper also deliberately avoids using economic metrics as the still ongoing COVID-19 pandemic makes considerations such as profitability for instance challenging to presently ascertain, and arguably, even more difficult to forecast into the foreseeable future. It should be noted that China Airlines and EVA Air brought in revenues totaling about 170 billion Taiwan dollars (TWD) in 2019 (close to 5.5 billion USD), and were both profitable. They have been on a comparable financial recovery path since the depths of the pandemic in 2020. China Airlines is majority owned by the government, while EVA Air is part of the privately owned conglomerate Evergreen Group (CAPA, 2022a/b). Similar airline benchmarking research has also quarantined economic factors to focus instead on non-financial considerations such as fleet, network and global reach (Ellis & Leib, 2021). This reality is only heightened if the ongoing war in Ukraine, and the associated increase in global energy prices and inflationary pressures are added.

China Airlines and EVA operate in chiefly a duopoly whereby combined they dominate the Taiwanese air market, especially from an international network capacity vantagepoint (CAPA, 2022c). Strictly speaking, an oligopoly is where several firms dominate, and a duopoly falls within this but where only two compete; the global airline industry is a salient case in point for oligopolies (including duopolies) whether at the national air market level, individual route level, or when looking at major aircraft manufacturers, along with jet engine manufacturers (Vasigh, Fleming & Tacker, 2013). This is particularly relevant in Northeast Asia where Korean Air and Asiana Airlines dominate in South Korea (though the latter may soon be merged into the flag carrier), and Japan Airlines (JAL) and All Nippon Airways (ANA) have similar market power and dominance in Japan. Further south, Australia has long been recognized as an air market duopoly, firstly with Qantas Airways and Ansett Airlines, and more recently with Qantas and Virgin Australia (Mohammadian, Abareshi, Abbasi & Goh, 2019). On the other side of the Pacific, Air Canada and WestJet

dominate Canadian aviation, while LATAM and Gol likewise are strongest in Brazil; albeit with Azul Airlines creating some competitive pressures (Oliveira & Oliveira, 2022). Of course, many smaller regional players operate mostly domestically as well in these national air markets, thus reflecting an oligopoly more broadly, but a duopoly in terms of major dominant market players. In fact, the two main domestic carriers in Taiwan are wholly owned subsidiaries of the airlines analyzed in this paper. In many of these instances, the established and widely known flag carrier (i.e. Korean Air, JAL & Qantas) often overshadows their national competitor in media, industry and even academic coverage; however, this can sometimes hide interesting and insightful realities. For example, the once powerful JAL is now smaller than ANA, whereas Asiana has never been able to competitively match its bigger compatriot Korean Air in size or perceived service and product standards (Loh, 2022).

### 3. Fleet mix and size

Both China Airlines and EVA Air operate a mixed fleet of wide-body and narrow-body passenger aircraft. As summarized in Table 1, EVA Air currently operates the largest active passenger (PAX) fleet of the two, with Boeing's B777-300ER accounting for nearly half the airline's total PAX fleet size (46%). However, it should be noted that China Airlines does operate 17 dedicated 747-400F freighter aircraft, along with carrying more passengers with more frequencies, than its national rival.

Table 1. Active passenger fleet mix for China Airlines and EVA Air in August 2022

Aircraft Type	China Airlines	EVA Air
Boeing B777-300ER	10	34
Boeing B787-10	0	6
Boeing B787-9	0	4
Airbus A350-900	14	0
Airbus A330-200/300	21	12
<b>Wide-body PAX fleet total:</b>	<b>45</b>	<b>56</b>
Airbus A321-200/200NX	8	18
Boeing B737-800	11	0
<b>Narrow-body PAX fleet total:</b>	<b>19</b>	<b>18</b>
Boeing 747-400F	17	0
Boeing 777F	4	8
<b>Dedicated freighters (F) total:</b>	<b>21</b>	<b>8</b>
<b>Fleet total:</b>	<b>85</b>	<b>82</b>

(Source: ch-aviation, 2022 & CAPA, 2022a/b)

China Airlines actually owns the largest 747-400F cargo fleet in the world (17 aircraft) and has committed to the development of cold-chain logistics, and places great emphasis on the air freight market. Unlike China Airlines, EVA Air focuses more on the wider aerospace industry, including Evergreen Aviation Technologies Corporation (EGAT) which is well known globally for its considerable maintenance capacity and technical standards (Aviation Week, 2022). China Airlines enjoys a slight edge over its rival in terms of new wide-bodies, with 14 Airbus A350s in its active fleet, though EVA Air does have 10 Boeing 787s. Both airlines operate Airbus and Boeing wide-bodies, although EVA Air has an all-Airbus narrow-body fleet. The average fleet age for China Airlines is 10.2 years (median 8.1 years), while EVA Air's fleet averages 7.8 years (median 6.3 years) (CAPA, 2022a/b). These fleet variations likely

reflect aircraft prices and availability at the time of ordering, rather than a particularly strong ideological stance in favor of one or the other. Pragmatism trumps a clear manufacturer preference in Table 1 for the two airlines.

#### 4. International partnerships and cooperation

International partnerships and cooperation, especially global airline alliance membership, help to entrench the competitive strength of China Airlines and EVA Air. In this context, China Airlines has more codeshare partners than EVA Air; 19 and 14 respectively (CAPA, 2022a/b). Meanwhile, EVA Air belongs to the largest global airline alliance in terms of members, Star Alliance with 26 total members (Star Alliance, 2022). In contrast, China Airlines is a member of SkyTeam which has 18 members in total (SkyTeam, 2022). Passengers wishing to use a oneworld member airline to depart or enter Taiwan would mostly do so on either Cathay Pacific or JAL.

The dominant hub power position that China Airlines and EVA Air maintain at Taiwan's principle international gateway airport Taoyuan International Airport (TPE) – 21% and 24% respectively – helps to illuminate what is labelled “dual alliances share” where “two alliances are well-matched and together dominate the market share” (Peng & Lu, 2022, p. 9). This concentration is further enhanced and demonstrated by SkyTeam's overall market share at TPE being 32% and Star Alliance being 28% market share (Peng & Fu, 2022). This “distinct duopoly” by SkyTeam and Star Alliance controls 60% of the market for TPE (Peng & Fu, 2022, p. 6). China Airlines' relatively lower market share at TPE compared with EVA Air is counterbalanced by SkyTeam's relatively higher market share to Star Alliance. Both carriers handle essentially all “connecting passengers” for their respective alliance at TPE (Peng & Fu, 2022, p. 10), making any meaningful market power distinction between the two at TPE, and more generally across Taiwan, a moot point.

#### 5. Network scope and global reach

Both China Airlines and EVA Air operate relatively limited domestic services, in large part due to high-speed rail (HSR) and low-cost carrier (LCC) competition on these routes (CAPA, 2022c), but also focus on regional travel with subsidiaries Uni Air (wholly owned by EVA Air) and Mandarin (China Airlines). Rather, they both focus on large cities in North America, Central Europe, South Asia and Northeast Asia. And although they follow this strategic regional orientation, it seems their long-haul networks (i.e. excluding Northeast Asia) do not overlap significantly in terms of the specific airports served. As Fig. 1 suggests, there seems to be a differentiated focus with EVA Air (BR) serving more destinations in North America exclusively, whilst China Airlines (CI) dominates the Southwest Pacific and India, whereas there are more shared routes in South Asia. In Europe, they also seem to avoid serving the same airports (except for Vienna and Amsterdam); in fact, EVA Air has announced further expansions to cities with no direct competition from China Airlines: Munich and Milan (Joshi, 2022). It should be noted that the routes shown in Figure 1 are not flight paths, with most Chinese airspace closed to Taiwanese airlines on all but direct routes to the mainland; a factor that certainly affects the competitive landscape with foreign carriers, particularly in terms of fuel costs, travel time, and consequently, aircraft and crew utilization. Fig. 2 also suggests that for the short- and medium-haul destinations in Northeast Asia the airlines seem to follow a similar geographical distribution that avoids serving the same airports in direct competition with each other. In fact, both carriers create a rather comprehensive coverage of Chinese and Japanese destinations. Since the 2008 start of direct air links to mainland China, traffic has grown considerably (Wen, Huang & Fu, 2020). Even so, the Chinese authorities do not permit these services to be interlined with other services out of Taiwan, thus restricting China Airlines and EVA Air from operating a more extensive hub-and-spoke network from their main base in Taipei. For instance, passengers originating from China are not able to transit Taipei to onward destinations in North America (or elsewhere) on a single itinerary/ticket (Chang, Hsu & Lin, 2011).

Nevertheless, a closer examination of the seat-capacity distribution on their networks indicates a more intense competition on the busier routes (see

Fig. 3 for long-haul and for short- and Fig. 4 medium-haul routes at pre-Covid-19 pandemic levels). Besides the dominance of EVA Air in the North American (NA1) market, and of China Airlines in the Southwest Pacific (SW1), the capacity share of the long routes served together elsewhere is rather even (not considering other carriers). Thinner routes, in contrast, are served exclusively by either airline, apparently exhausting the market for the other. The same



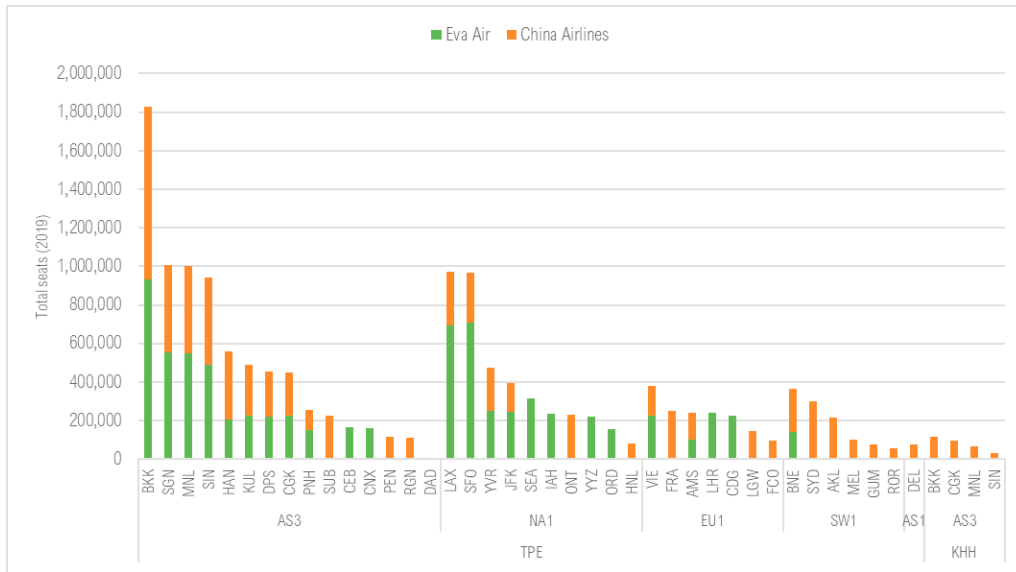


Fig. 3. Total seats offered by Eva Airways and China Airlines to long-haul destinations (i.e. excluding North East Asia) in 2019. Data Source: OAG (2022)

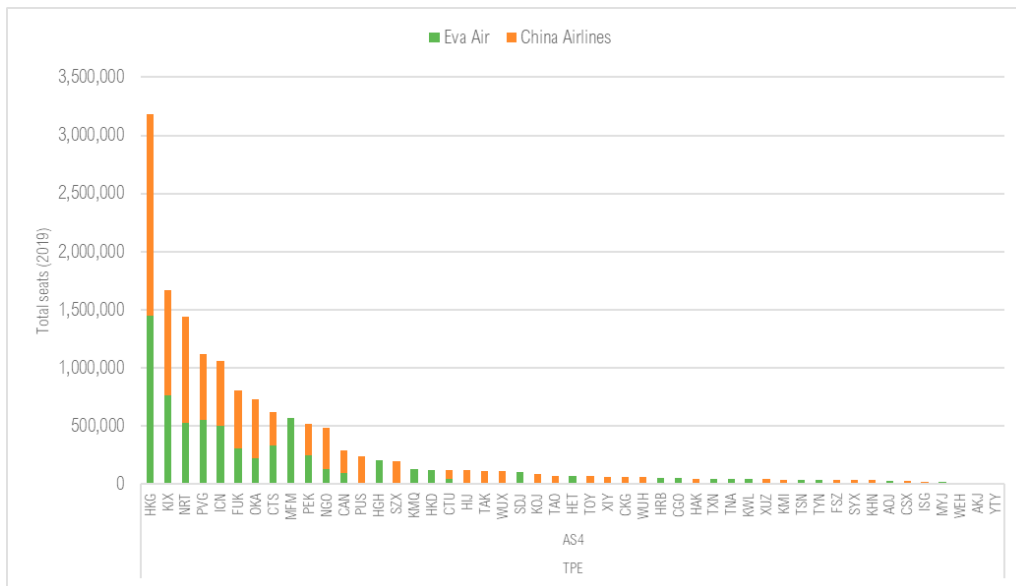


Fig. 4. Total seats offered by Eva Airways and China Airlines to destinations in North East Asia (AS4) from Taipei Taoyuan Airport (TPE) in 2019. Data Source: OAG (2022)

A closer examination of the network and capacity deployment of both airlines in the last quarter of 2022 (in terms of post-Covid-19 developments) does not suggest any significant deviation from the strategy described so far. In fact, the most obvious difference relates to direct services to mainland China (but also via Hong Kong and Macau) being substantially reduced due to diverging implementations of travelling restrictions there and in Taiwan. The zero-Covid policy in mainland China, and by extension Hong Kong and Macau, contrasts with the less restrictive living with Covid approach in Taiwan, and this divergence clearly impacts air traffic.

## 5. Brand awareness and loyalty

Taiwan's geographic location puts its carriers in the highly competitive environment of the Northeast Asian region which has become one of the fastest-growing in the world for airline activity (Zhang & Zhang, 2021). China Airlines and EVA Air do not enjoy the same brand awareness as nearby competitors in the region such as Korean Air, Cathay Pacific, or JAL. The two Taiwanese airlines are certainly not as well-known as Singapore Airlines to their southwest. In recent years, China Airlines and EVA Air have also begun to lose their perceived competitive gap with the major Chinese carriers such as China Southern Airlines and China Eastern Airlines (Lau, Lei, Fu & Ng, 2012; Zhang & Zhang, 2021). As Figure 5 shows, China Airlines and EVA Air performed better in the air freight market compared to the passenger market in 2019, but foreign carriers secured nearly 50% market share of all international and cross-strait passengers. In addition, the two legacy airlines have faced considerable challenges as a result of the growth of low-cost carriers with their competitive pricing in the short-haul market.

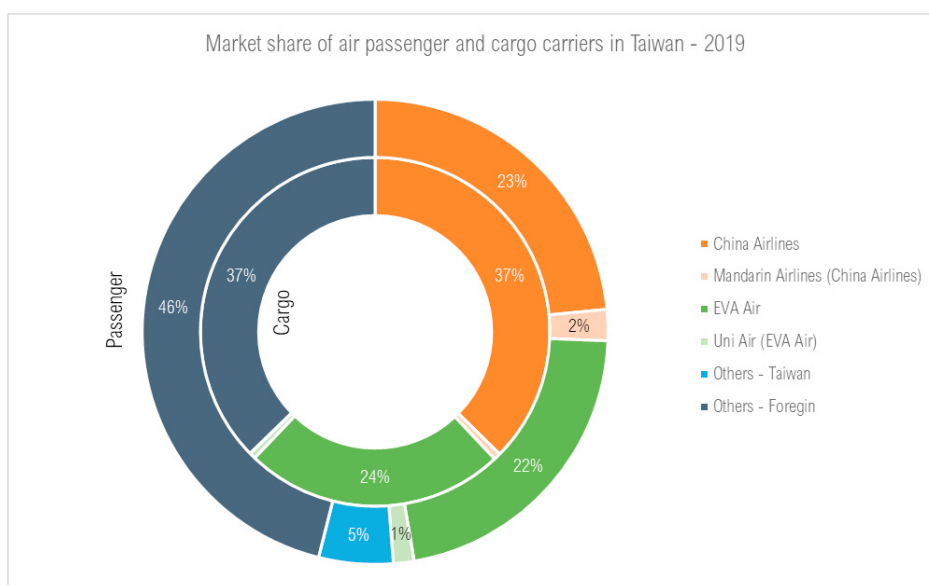


Fig. 5. Market share of passenger and cargo carriers in Taiwan, 2019. Data Source: CAA, MOTC R.O.C (2019)

China Airlines and EVA Air have significantly different marketing and operating strategies. While the state-owned flag carrier China Airlines emphasizes the importance of localization and Taiwanese culture with its services and products, EVA Air meanwhile puts a lot of effort into internationalization of its service and product offering, and tends to pursue cross-branding and collaboration with other industries. For instance, EVA Air has operated a 777-300ER with a Hello Kitty (Japanese fictional character) livery, while also recently signing a contract with English Premier League football club West Ham United (Dennis, 2022).

EVA Air is often considered to have the better brand image compared with China Airlines (seen in Table 2), and it is not surprising given that EVA Air owns a younger fleet, provides higher service quality, and operates more efficiently as a private company. Nevertheless, flag carrier China Airlines does have name recognition advantages, although these often result in confusion with China's big three carriers (Air China, China Southern & China Eastern). Curran (2021) argues that "EVA Air is frequently overshadowed by state-owned carrier China Airlines" (para. 1) however, this appears to be more about name recognition (again, often based on confusion), than about service and product standards. Table 2 confirms this.

Table 2. Awards and reviews for China Airlines and EVA Air in mid-August 2022

Organization	China Airlines	EVA Air
Skytrax (5-star rating scale; 5 = best)	4	5
Airline Ratings (7-star rating scale; 7 = best)		
Safety Rating	6	7
Product Rating	5.5	7
Tripadvisor (5-point scale; 5 = best)	4	4.5
<i>4,104 &amp; 6,848 reviews respectively</i>		
<b>Aggregate:</b>	<b>19.5</b>	<b>23.5</b>

(Sources: Skytrax, 2022a/b; Airline Ratings, 2022a/b & Tripadvisor, 2022a/b)

Although the two Taiwanese carriers operate comprehensive networks covering Europe, Asia, North America, and Oceania, serving more than 50 cities around the world, they are members of different airline alliances and show obvious diversity in their extended network strategy. As a member of SkyTeam alliance and a code-share partner with many Chinese carriers, China Airlines enjoys competitive advantages in both the Taiwan-US air market, and also the cross-strait air market to mainland China. China Airlines provides competitively priced fares between Taiwan and the US, and often the cheapest prices for Taiwan-Hong Kong flights. In contrast, EVA Air joined Star Alliance in 2013 and the network connections brought by its member airlines have benefited EVA Air's network development in the Taiwan-Europe market. Hence, EVA Air provides competitive pricing for passengers to and from European destinations.

## 6. Key conclusions and future prospects

Although conflict has the potential to flare at any time between China and Taiwan, and geographic restrictions on Taiwanese airlines continue to be imposed by China, the two largest airlines in Taiwan have managed to progressively build fleets, partnerships, networks and brands with considerable global reach and rising profiles. China Airlines and EVA Air operate broadly similar fleets, although the former is the world's largest 747-400F freighter operator. International partnerships center around their respective memberships of SkyTeam and Star Alliance, and each holds a commanding duopoly competitive position at Taipei's main airport (TPE). Despite several notable variations and unique destinations across their networks, each carrier maintains more network commonalities than dramatic differences. Interestingly, when it comes to name recognition, China Airlines is often the source of passenger confusion with mainland Chinese carriers, although this is not mirrored in passenger reviews for service and product standards. In contrast, EVA Air does rate higher both from passengers and industry-based reviews.

The most pressing long-term challenge for both China Airlines and EVA Air remains geopolitical, as each must be ready to strategically adapt to Taiwan's ever fraught relationship with mainland China. In this sense, as with so much that impacts and shapes the global airline industry, external realities and forces rather than internal key success factors (KSFs), have the greatest potential to determine each airline's future strategic trajectory. Nonetheless, geopolitics are not inherently challenging nor entirely restrictive, as an advantageous geographical location (military tensions aside), create opportunities to grow in network scope, flight frequency, brand profile and airline partnerships in North America, Japan, South Korea, Australia, New Zealand and more. China Airlines and EVA Air help to demonstrate that the global airline industry continues to substantially connect the world, even if it cannot do so irreversibly and in perpetuity. Air travel, together with the tourism and trade it encourages – not to mention the cultural and familial links it fosters (amongst others) – is a poignant antidote for international conflict, tension and division. China Airlines and EVA Air help to show what positive competition, coexistence and connection can deliver.

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