



VIEWPOINT

Air Passenger Outlook: China Reopening

This report provides an overview of the recent developments in China's commercial air travel industry following the lifting of the country's zero-Covid policy. It examines the recovery trends in the international aviation markets, highlights the challenges faced during the recovery process, and presents a high-level outlook for the full restoration of air travel in China.

After the removal of the zero-Covid public health policies, China's domestic revenue passenger-kilometers (RPKs) reached 86.3% of their 2019 levels in January and 91.8% in February. By March, domestic RPKs were only 3.3% below pre-crisis levels. We project that domestic RPKs and passengers will more than likely recover to their 2019 monthly level by summer 2023, and to their 2019 annual level by 2024.

While there was a steady growth in international passenger traffic in the first quarter of 2023, the recovery of international travel remains uncertain due to policy-based flight restrictions and capacity shortages that are affecting airlines. China's modest economic outlook in the near term could also hinder international air traffic growth. Considering the latest challenges, our analysis suggests that capacity for China's international markets could fully recover to the 2019 annual level by 2025.

Background

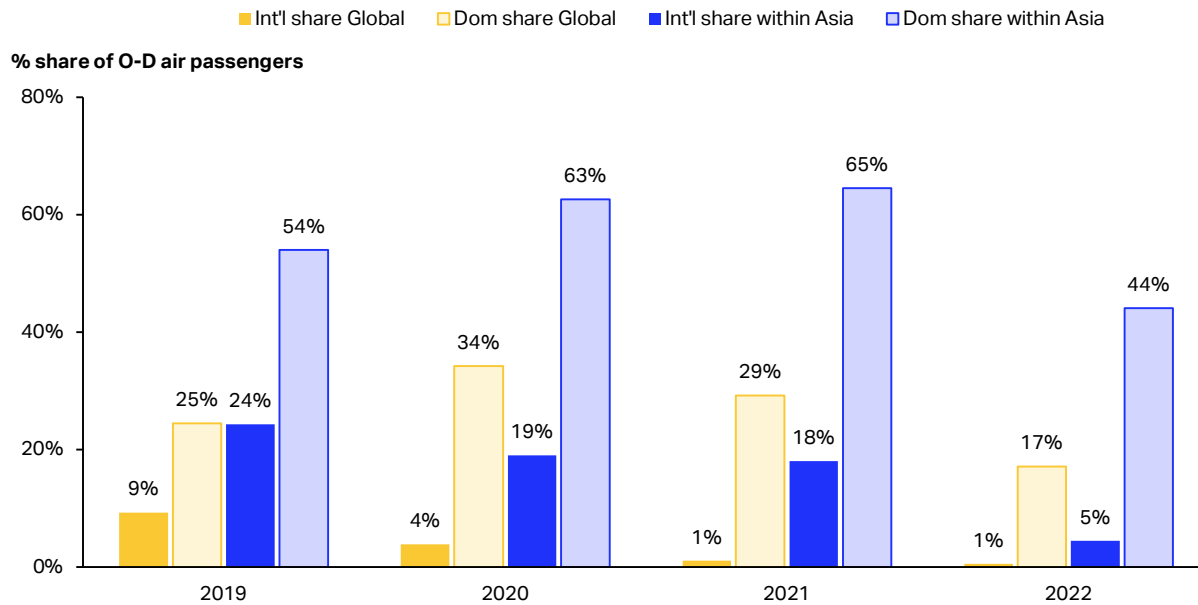
On 26 December 2022, the Chinese government announced the removal of most of the remaining travel restrictions related to the Covid pandemic and reopened its borders for international air travel starting from 8 January 2023 ([State Council, CAAC](#)). Given that China is the second-largest economy in the world and represents over one-third of the global population, its reopening will significantly contribute to the industry-wide recovery in both domestic and international air passenger demand.

In 2019, prior to the onset of the Covid-19 pandemic, China held a considerable share of global air passenger demand, accounting for 9% in international travel and 25% in domestic travel. Within Asia, China had a dominant position with a market share of 54% in domestic travel and 24% in international travel, making it the primary source of travelers in the region. During the pandemic, however, China's share of international air travel demand plummeted to a mere 1%. Reflecting the country's effective containment measures against the original Covid-19 virus and the Delta variant, the pandemic's impact on China's domestic aviation market was largely mitigated. As a result, China's share of global domestic demand increased to 34% in 2020 and 29% in 2021, before dropping to 17% in 2022 when China tightened its domestic air traffic flows again to contain the Omicron variant (**Figure 1**). Considering the substantial size of China's air travel markets, the rapid recovery in the number of air travelers in the country will contribute to the recovery of total domestic and international air passenger traffic. As a result, global passenger demand could return to pre-pandemic levels as early as this summer.

Owing in large part to the domestic market, China's total air passenger traffic in the first quarter of 2023 nearly tripled compared to the previous quarter, reaching approximately 80% of 2019 levels. This surge in domestic traffic was propelled by pent-up demand and the timing of the Lunar New Year seasonal travel period. However, the recovery in international traffic, which constituted about 15% of China's total passenger demand in 2019, is more uncertain due to the remaining policy-

based flight restrictions and capacity constraints affecting airlines in various regions. This report provides a summary of our perspectives on China's reopening and the expected impact on air travel recovery in China.

Figure 1: Market share of China's air passengers (origin-destination), Global and within Asia



Source: IATA Sustainability and Economics, using data from DDS for inbound and outbound origin-destination (O-D) passengers
 Notes: Based on OAG data, scheduled seat capacity shares of China in 2019 were 9% of global international, 22% of global domestic, 17% of international within Asia, and 51% of domestic within Asia.

Near-term economic outlook for China

The recovery in air transport demand in China will depend on the country's economic environment post-reopening. China's GDP increased by 3.0% in 2022, in constant prices, reaching RMB 12.1 trillion. The International Monetary Fund (IMF) recently upgraded its forecast for China's GDP growth in 2023 to 5.2%, a 2.2 percentage point increase compared to the previous year's performance. This was followed by China's latest announcement, adopting a target annual GDP growth rate of around 5% for 2023 in the annual "Two Sessions" meetings on 5 March 2023 ([ChinaDaily](#)). This looks achievable, potentially even modest, in the light of Q1 GDP growth of 4.5% year-on-year.

While the adopted target is the lowest in 30 years, there is, of course, a trend decline in GDP growth rates as economies mature and the value of each percentage point of growth increases in monetary terms. Moreover, as growth is currently on the lackluster side in mature economies, Asia and the Pacific will likely contribute about 70% of global growth this year, led by China and India — a much greater share than in recent years. China's GDP growth has important spill-over effects on the rest of the global economy, a relationship the IMF puts at an additional 0.3 percentage points globally for every additional percentage point of growth in China. Hence, any developments in the Chinese economy will play an important role in assessing the likely pace of the international air passenger traffic recovery.

We also take into consideration that China's economic growth is confronted with broader structural challenges beyond the immediate impacts of Covid. These challenges encompass the demographic issues stemming from an aging population, a slowdown in labor productivity growth, and the potential for sustained declines in exports and investments, which have historically fueled China's economic expansion. Despite China's economy rebounding faster than expected following the reopening, there is a possibility that this could prompt more stringent responses from monetary and fiscal policies, potentially dampening the outlook for 2024.¹

¹ For more, see Oxford Economics, World Economic Prospects Monthly | Global, *Tighter credit conditions prompt downgrade to 2024 growth*, 12 April 2023.

The latest policies and Covid-19 developments in China

The relaxation of the zero-Covid measures in December 2022 removed restrictions on the flow of people within China and across the border.² Some of the latest developments include: **15 March**, China resumed issuing visas to visiting tourists and other foreigners; **25 April**, China announced that all in-bound travelers (applicable to all countries) can use 48hr anti-gen test results to replace the PCR tests for boarding flights to China, which marked a big step towards the final removal of all travel restrictions; and **15 May**, the National Immigration Administration (NIA) announced that China will fully restore fast-track entry and exit at ports, which will greatly simplify procedures for international travelers entering or leaving the country.³

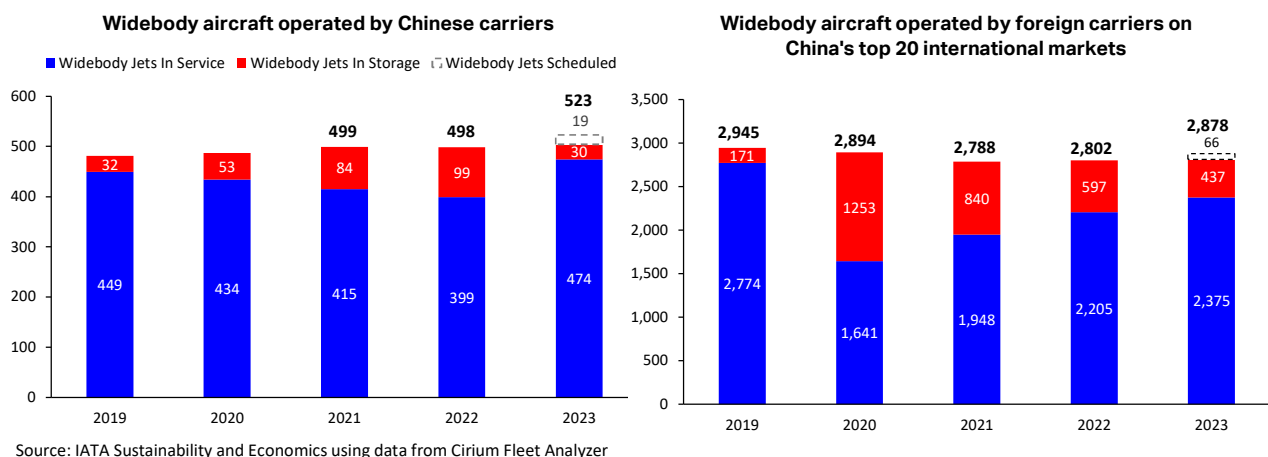
Recovery in China’s international air transport capacity

Capacity developments have played an important role in the recovery of China’s commercial aviation activity. As Covid-related restrictions were lifted and demand for air travel soared, airlines were quick to restore domestic flights. The recovery in domestic capacity and demand, however, fluctuated with steep traffic declines and V-shaped rebounds in response to changing travel policies, surging Covid-19 infections, and short-term acute labor shortages. With these constraints easing, China’s domestic air transport markets have almost fully recovered to pre-Covid levels. In March 2023, domestic available seat kilometers (ASK) in China were already 13.6% above their 2019 levels, and domestic revenue passenger kilometers (RPKs) were only 3.3% below the same month in 2019 ([IATA air passenger market analysis](#)).

The recovery of airline capacity in international markets has been robust since the reopening in January. Chinese carriers are expected to have enough crew members and widebody aircraft to meet the demand on busy international routes (**Figure 2, left**). Despite the volatility in China’s large domestic aviation market, it remained active during the pandemic, enabling Chinese carriers to keep a significant portion of their fleets and crew operational within the country. This readiness can now help support the resumption of international service. The Civil Aviation Administration of China (CAAC) has also made concerted efforts to ensure that there are enough ground workers, crew, and pilots available for the reopening.

While domestic air traffic in China is almost fully recovered, international air travel to China remains significantly lower than pre-pandemic levels and may experience a gradual recovery due to several factors. Foreign airlines serving international routes to China have been slower in restoring their capacity due to flight capacity limitations (flight caps) and delays in recovering their widebody fleets for flights to China. (**Figure 2, right**). Facing China’s “Five-ones” policy and low demand for air travel to and from China, these airlines had reassigned their aircraft to other routes. Additionally, many of these carriers have a limited number of long-haul aircraft due to planes being taken out of service or retired during the pandemic ([McKinsey](#)).

Figure 2: Widebody aircraft availability for Chinese and foreign carriers



² The most stringent restrictions have been China’s “Five-ones” policy, which required each domestic airline in China to reduce its international routes to one per country and limit its flight frequency to no more than one per week, while each foreign carrier was allowed to maintain only one air route to China and operate no more than one flight per week.

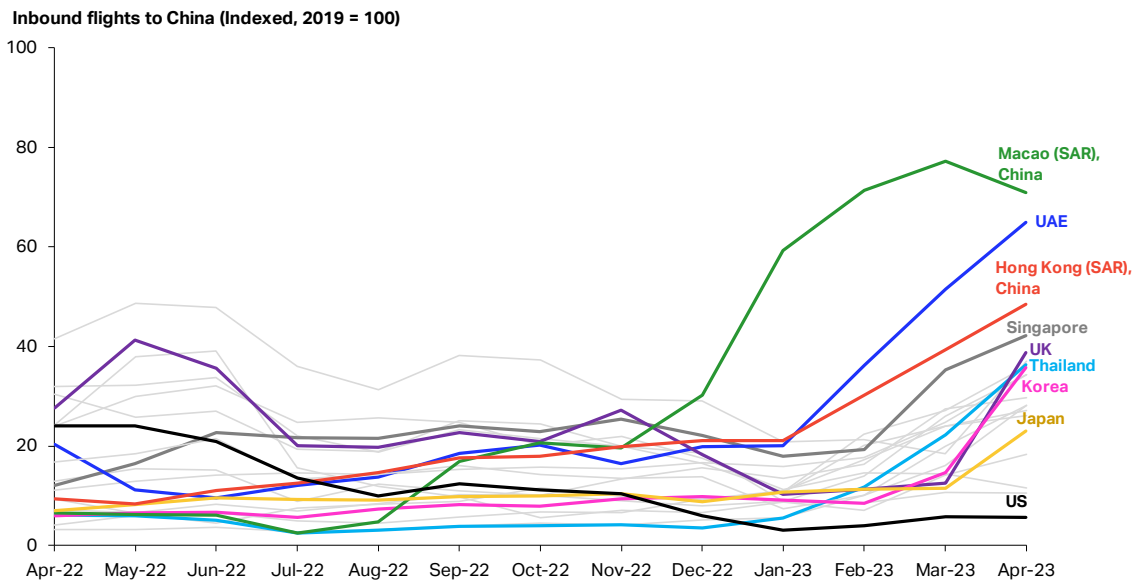
³ For a summary of the latest policies pertaining to Covid-19, see the Appendix of this report.

Given that the immediate return of these planes to Chinese routes is not realistic, we expect a delay in the full restoration of aircraft capacity in China's international markets. Moreover, the aviation industry is currently grappling with a shortage of staff caused by the extended period of reduced activity, which will further lengthen the time needed to rebuild the workforce's capacity and skills. Finally, the use of Russian airspace remains a challenge for foreign airlines looking to resume flights from Europe and the US to China without sacrificing operational efficiency due to significant re-routing. Considering all of these factors, we expect the complete recovery of China's air transport market to largely depend on the revival of international service, particularly in the international inbound market, which is anticipated to be the last to recover.

The status of China's international inbound capacity

Following the reopening announcement, between January and April, the inbound international flights (capacity) to China recovered to about 34% of the pre-covid levels.⁴ The recovery in China's inbound international flight traffic since the reopening has been strong, albeit with mixed profiles for some country markets (**Figure 3**). Most of China's top 20 international markets, which accounted for 90% of China's international flights in 2019, saw a significant increase in their weekly flights to China between January and April 2023. However, a number of countries did not add flights to China due to the quantitative flight caps that are still in place, most notably between the US and China. Disagreements over airspace restrictions have also complicated air service agreements and the resumption of consistent service, despite the strong demand for air travel between the countries. This highlights the importance of diplomatic relations and coordinated travel policies to ensure the resumption of stable international air travel.

Figure 3: Inbound monthly international and regional flights to China (top 20 markets)



Source: IATA Sustainability and Economics, market statistics compiled by IATA using FlightRadar24 under license

Flights from the US to China have remained at less than 6% of their 2019 levels since the start of 2023, and flights from France and Canada to China are only around 11% of pre-Covid levels. In comparison, international and regional flights originating from countries and local areas in Asia are leading in the recovery, notably with April flights recovering to 71% for Macao (SAR), China, 49% for Hong Kong (SAR), China, and 42% for Singapore. Flights from Thailand, China's largest international market, are also recovering quickly, reaching 36% of the pre-crisis levels in April 2023. With airlines restarting service from the Middle East region, flights from UAE to China have recovered to 65% of pre-pandemic levels, and a similar resumption of service from the UK has restored flights from that country to 39% of 2019 levels. As Covid testing requirements are removed and more carriers resume capacity on overseas markets, we expect a continued improvement in the international markets in the medium term, in line with the strong passenger demand.

⁴ Seat capacity is expected to recover to a slightly higher level, given that the average seats per flight increased to 240 in Q1 2023 from 222 in Q1 2019. This increase reflects the fleet up-gauging that has taken place in the relevant markets as flight frequency remained low.

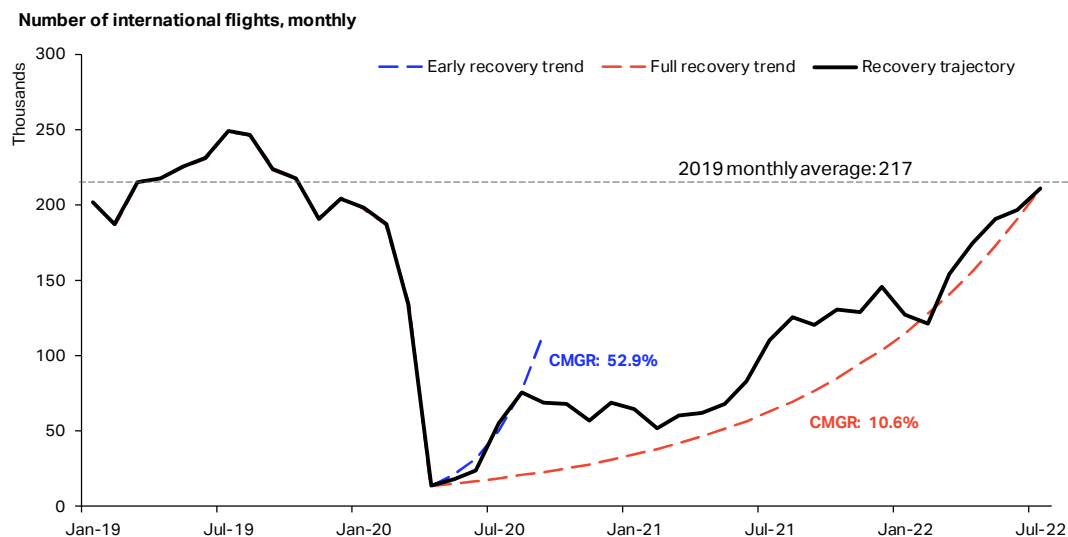
China’s international capacity recovery in the global context

By April 2023, international inbound flights to China had reached 34% of the levels seen in 2019. However, other major markets including the US, Canada, France, the UK, and the UAE had already regained their pre-pandemic monthly capacity levels as early as July 2022. These five fully recovered markets were among the top 20 international markets for China in 2019 (Figure 4).

The initial rapid growth in air traffic in these markets was driven by their relaxed policies on international air travel during the early phase of reopening. As China is moving towards a complete relaxation of its policies, the early recovery profile (April to August 2020) observed for these markets can serve as an upper bound to China’s possible recovery trend (Figure 4). Currently, China is experiencing a similar fast-paced recovery. On the other hand, the full recovery trajectory (April 2020 to July 2022) of these markets portrays the significant impacts of a series of policy changes that imposed travel restrictions in response to Covid outbreaks and the emergence of new variants. The compound monthly growth rate (CMGR) over the entire recovery period was 10.6%, compared to the strong initial recovery rate of 52.9% seen in the first 5 months. This also demonstrates the high degree of uncertainty that flight restriction policies can impose on the recovery of international air transportation.

The growth profiles observed in fully recovered markets (Figure 4) and the recovery trends of inbound air traffic between individual markets and China (Figure 3) highlight that international travel restrictions introduced by policymakers remain the primary source of uncertainty in China’s international air travel recovery.

Figure 4: Recovery rates of international flight operations for the fully recovered group of large markets (the US, Canada, France, the UK, and the UAE)



Source: IATA Sustainability and Economics, market statistics compiled by IATA using FlightRadar24 under license
 Notes: Fully recovered market group includes the US, Canada, France, UK, and the UAE.

Possible recovery profiles for China’s international capacity under policy risks

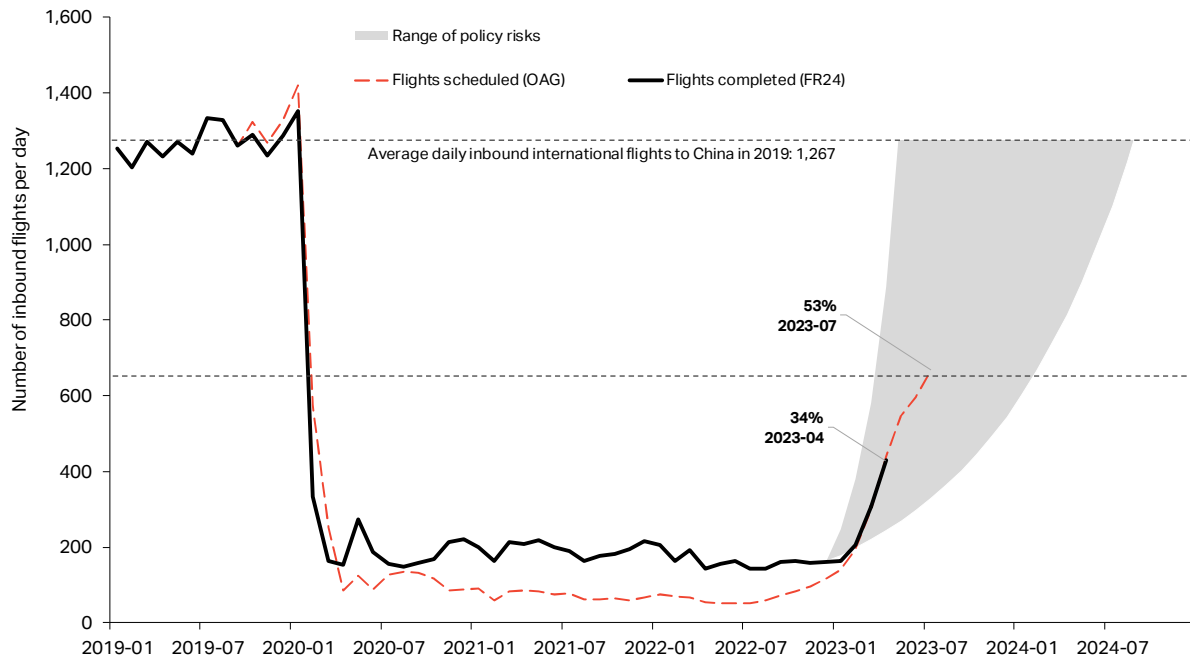
Based on actual flight operations data from FlightRadar 24 (FR24) and flight schedules data from OAG, we have identified possible timelines for the recovery of China’s international inbound air traffic (Figure 5). Data on completed flights indicate that, in the approximately 4-month period following the reopening, the average daily flights nearly doubled compared to the preceding 4 months in 2022, with an average monthly growth rate of 27%. In April, the number of inbound flights reached 34% of the average daily flights recorded in 2019 before the pandemic. Based on scheduled flights for May–July 2023, we anticipate this growth trend will continue, raising China’s inbound capacity to 53% of pre-pandemic levels. Maintaining this observed trend, with an additional 3,000 flights per month, inbound flights to China could recover to their pre-pandemic monthly levels by the end of Q1 in 2024.

There is a possibility that inbound flights could recover at a slower pace, primarily due to the downside risks of potential policy changes. This scenario draws on the gradual growth rate (10.6% CMGR) seen in the group of countries that have already achieved full recovery in their international activity (**Figure 4**). These countries experienced multiple instances of health and travel-related policy restrictions between August 2020 and July 2022. Lingering policy risks suggest that full recovery could be delayed, reaching pre-pandemic levels of monthly flights by the end of Q3 in 2024.

However, it is also important to note that there is a possibility of an upside surprise in inbound international traffic. The events that could drive such an outcome would be a stronger-than-anticipated GDP growth rate in China, a full removal of the remaining flight restrictions between China and the US, and an end to the war in Ukraine. Such developments could affect both the magnitude and the timing of China's air traffic recovery.

Figure 5 illustrates the potential range of timings for China's international inbound flights to regain the average monthly level of 2019, highlighting the significant uncertainty introduced by policy risks.

Figure 5: Recovery profile of China's international inbound daily flights



Source: IATA Sustainability and Economics market statistics compiled by IATA using FlightRadar24 under license, OAG
 Notes: The gap between OAG and FR24 flights during the Covid-19 pandemic is partly due to the inclusion of 'preighters' (passenger aircraft used only for cargo operations) in the FR24 data and not in OAG. Preighters have been phased out by most airlines in 2022. For Chinese airlines, preighter operations were substantial until October 2022.

To recover in the first quarter of 2024, airlines would add over 95 inbound international flights per day on average, maintaining the schedule-based recovery trend through full recovery. Considering the downside policy risks that could significantly slow the growth of inbound capacity, China would achieve its full recovery of inbound international air traffic by the end of Q3 2024, with airlines adding an average of at least 60 flights per day (**Table 1**).

Table 1: Airline capacity recovery profiles for inbound flights to China, % share of 2019 flights

Recovery Profiles	Apr 2023	Jul 2023	Sep 2023	Dec 2024	Mar 2024	Sep 2024	Average daily flights added each month for full recovery
Schedule-based recovery trend	34%	53%	65%	87%	>100%	>100%	95+ flights
Downside risk	19%	26%	32%	43%	53%	>100%	60+ flights

Source: IATA Sustainability and Economics, using data from FlightRadar24 under license, OAG.

Recovery in China’s international air transport demand

Airlines ultimately plan their capacity in consideration of passenger demand, which in turn is determined by a number of factors, including the price of air travel. As airline capacity recovered on the back of the reopening of China’s aviation markets, average airline yields on inbound air travel to China in Q1 2023 have remained elevated at more than double the level seen in Q1 2019. In comparison, global average inbound yields (excluding markets bound for China) in Q1 2023 were only 30% higher than the pre-Covid levels. As more capacity is added to international markets, yields are expected to moderate, contributing to an improvement in passenger demand recovery.

Indicators of demand recovery

Following China’s reopening, international inbound passenger demand increased from 11% of the 2019 level in January to 23% in March. Passenger load factors on relevant markets, measuring the proportion of passengers compared to the available airline seating capacity, maintained their upward trend albeit at a slower pace since January 2023. As airlines restored their capacity in response to the growing passenger traffic, the average load factor in Q1 2023 recovered to within 13 percentage points of the average in Q1 2019. Assuming the current load factors are maintained and based on the scheduled capacity for the upcoming months, inbound air passenger demand to China could reach 40% of pre-pandemic levels by the end of July, compared to the 53% of recovery in inbound capacity (**Figure 5**). Consequently, an average of 2.3 million inbound passengers would be added to this market per month between April and July. As international travel resumes, airline schedules will become more consistent, and yields are expected to moderate. Under these conditions, changes in airline scheduled capacity and passenger demand will be aligned. It is therefore unlikely that the current 3-month lag in the recovery in passenger traffic compared to that in scheduled capacity will hold in the later stages of the recovery. Instead, this lag is expected to diminish as airlines moderate their capacity growth in order to support healthy load factors.

Ticket sales data also provides valuable insights regarding the demand recovery profile. Flight bookings and travel surveys indicate that the outbound demand for air travel has been strong for Chinese travelers ([McKinsey](#)). Demand for inbound travelers to China can also be assessed by the change in bookings or ticket sales for the upcoming summer travel period (May – September 2023).^{5,6} **Table 2** outlines the change in ticket purchases in 2023 compared to 2022, and to the pre-pandemic 2019 levels. The recovery in inbound passengers from the Asia Pacific region (excluding China), which accounted for 27% of all inbound tickets sold in 2019, is a primary driver of the recovery. The region’s passenger traffic could recover to 37% of 2019 levels over the upcoming summer travel period, similar to the 36% recovery estimated across all regions. This lags the anticipated recovery in inbound flights, which is expected to reach 53% of 2019 levels in July, based on the scheduled capacity for that month.

Purchased tickets also indicated that travelers from Europe may return to around 45% of their 2019 levels, while travelers from North America may reach approximately 32% of their 2019 levels during the upcoming summer period. In 2019, Europe accounted for nearly 10% of purchased tickets for flights to China, while North America’s share was around 9%. Although the recovery profile of other regions of origin is promising, their collective contribution to China’s inbound international ticket sales in 2019 was less than 2%.

Table 2: % Change in ticket sales for flights to China for May-September travel period

Comparison years	Region of Origin						
	Africa	Asia Pacific	Europe	Middle East	Latin America	North America	All (excl. China)
2022 vs 2019	-86.1%	-96.8%	-93.8%	-91.4%	-97.0%	-92.4%	-97.7%
2023 vs 2022	245.9%	1059.3%	630.2%	698.3%	1557.4%	319.9%	1479.1%
2023 vs 2019	-52.0%	-62.9%	-55.0%	-31.3%	-50.7%	-67.9%	-63.9%
2023 share of 2019	48.0%	37.1%	45.0%	68.7%	49.3%	32.1%	36.1%

Source: IATA Sustainability and Economics, using data from DDS for tickets purchased in January-April of each year.

⁵ For the May to September 2023 travel period, we estimated the change in ticket purchases against ticket sales for the same travel period in 2019. Consistent purchase periods, January – April, in 2019, 2022, and 2023 were used for the comparison.

⁶ These estimates could be viewed as conservative given that recent booking trends suggest that, since the pandemic, more travelers purchase their tickets closer to their date of travel.

Looking ahead

The recovery of international flights in China is of great importance for the restoration of both regional and global passenger traffic, as international flights accounted for 15% of China's total air passenger market before the pandemic. While there has been a strong recovery trend observed between January and April 2023 following China's reopening, uncertainties surrounding air travel policies can significantly affect the trajectory of traffic recovery. On the supply side, an early recovery relies heavily upon the assumption that no further restrictions or major policy changes, including diplomatic and trade policy with other markets, are imposed on international flights to and from China. To provide estimates of the possible recovery timelines for China's international markets, we also assume that there is no further escalation in the Russia-Ukraine war or other major conflicts, particularly in the Asia Pacific region. On the demand side, the economic climate in China and its top markets, especially advanced economies like the UK, will play a crucial role in the recovery of international passenger demand in China. A healthy Chinese economy and business environment will also attract foreign leisure and business travelers. The price of air travel remains higher than pre-pandemic levels, which may further delay the recovery in demand compared with capacity. However, we expect this gap to diminish as airlines manage their capacity growth in line with passenger demand.



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APPENDIX

Latest Covid-19 policies in China	Covid-19 situation in China as of May 2023
<p>Policies announced by the State Council on 26 December 2022 to be in effect from 8 January 2023:</p> <ul style="list-style-type: none"> ▪ Downgraded the control measures towards Covid-19 from Class A infectious diseases to Class B infectious diseases ▪ No longer implementing mandatory quarantine, nor health monitoring, and no longer tracking people who have been in contact with positive test cases ▪ No longer categorizing Covid-19 risk areas ▪ No longer requiring mandatory PCR tests and centralized quarantine for inbound travelers, but a negative PCR test result within 48 hours of departure is still required ▪ No longer imposing the “five-ones policy” and the “country-specific policy” on international passenger flights ▪ No longer imposing restrictions on maximum allowable load factors on passenger flights ▪ Re-start the review of applications of airlines for new routes or increasing frequencies of international passenger flights ▪ Jan-Mar 2023, EU and non-EU countries have introduced and relaxed Covid restrictions for arrivals from China ▪ 15 March, China resumed issuing visas to visiting tourists and other foreigners ▪ 25 April, China announced that all in-bound travelers (applicable to all countries) can use 48-hour anti-gen test results to replace the PCR tests for boarding flights to China ▪ 15 May, China announced it will fully restore fast-track entry and exit at ports 	<ul style="list-style-type: none"> ▪ China stopped publishing official Covid statistics on 25 Dec 2022. The last official count was 4,128 Covid cases on 24 December. ▪ By November 2022, more than 90% of the population had been fully vaccinated (Xinhua News), but only 40% of over-80s have had three jabs (BBC) ▪ On 10 April 2023, the National Health Commission (NHC) announced another iteration of vaccination nationwide. China’s first domestically produced mRNA by CSPC will be used for booster immunization of people over 18 years old (NHC). ▪ China’s self-made mRNA vaccine by CanSino Bio started trial production in Jan 2023, with a capacity of producing 100 million doses in the first phase (Reuters); China’s Sinopharm mRNA vaccine was also approved for clinical trials in January (SCMP), claiming to produce up to 2 billion doses a year. ▪ BioNTech, the German company, partnered with a Shanghai-based company, which is currently providing its mRNA vaccines only to German nationals living in China, and to people in Hong Kong and Macau (BBC) ▪ China’s first mRNA vaccine AWCorna was approved for emergency use in Indonesia in Oct 2022 but is currently not used in China (State Council) ▪ As of 20 Dec 2022, 11 drugs are authorized in China for Covid-19 treatment (Xinhua News) ▪ As of 25 Dec 2022, there were a total of 181,000 intensive care beds in China (Xinhua News)