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Combined SKIES

Unlocking the Benefits of UAE-India Aviation Liberalisation for Indian Travellers

Arya Roy Bardhan | Debosmita Sarkar | Nimisha Chadha | Vivek Kumar

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Attribution: Arya Roy Bardhan, Debosmita Sarkar, Nimisha Chadha, and Vivek Kumar, *Combined Skies: Unlocking the Benefits of UAE-India Aviation Liberalisation for Indian Travellers*, March 2025, Observer Research Foundation.

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Editorial and Production Team: Vinia Mukherjee, *Editor and Producer;* Aswathy Gopinath and Monika Ahlawat, *Assistant Editors;* Rahil Miya Shaikh, *Design and Layout.*

Contents


Indian Passport Holders 12
13 Indian Passport Holders 14
Delhi Duty Free
CHANEL
CHANEL

Executive Summary

This report analyses the benefits that Indian travellers can derive from UAE-India air services liberalisation. This is part of a broader study that explores all aspects of a potential UAE-India bilateral air services agreement revision. The broader study will comprehensively capture the economic benefits of aviation, including tourism impact, job creation, and related sectors. It will entail a cost-benefit analysis; feasibility analysis of expansion; and an exploration of the regulatory requirements for facilitating liberalisation.

Introduction

The UAE and India stand at the cusp of an aviation boom—if they choose to seize it. Demand for air travel between the two countries is skyrocketing, yet current bilateral limits constrain growth. Without urgent action to expand aviation ties, both nations risk losing out on immense economic opportunities. Now is the time for a strategic push to liberalise air services and unlock mutual benefits.

Booming Demand: India's aviation market is one of the fastest-growing globally (expected to double by 2030) and India–UAE routes already served 19 million passengers in 2023, about 30 percent of India's international traffic. Flights are running near full capacity under the current regulatory arrangements, underscoring the urgent need for expansion.

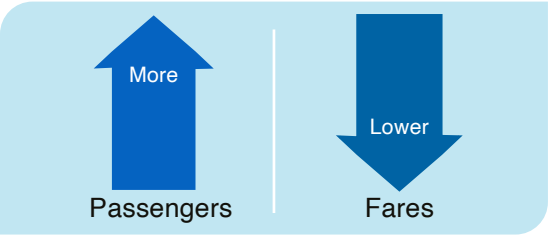
Major Trade Ties: The UAE is India's third-largest trading partner with bilateral trade of US$84 billion in 2023. Improved air connectivity will facilitate business travel and cargo, further boosting trade, investment, and economic integration.

Tourism and Jobs: UAE travellers are a key segment for Indian tourism (including fast-growing medical and business travel), and easier connectivity will spur two-way tourism growth. More flights also mean job creation in aviation and hospitality—from airports and airlines in both countries to local tourism operators—supporting post-pandemic economic recovery.

Objective of the Study

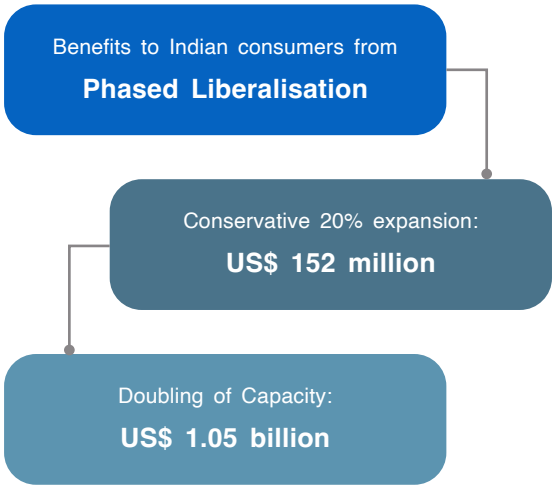
This report analyses the impact of increased passenger flow between the UAE and India using monthly and quarterly flight data from OAG Aviation Group. Econometric modelling is used to estimate the fare elasticity of demand at both the macro level and individually, for high-density routes. It also calculates the net present value (NPV) of consumer benefits to be generated from a hypothetical liberalisation of the bilateral air services agreement.

Key Findings from the Study



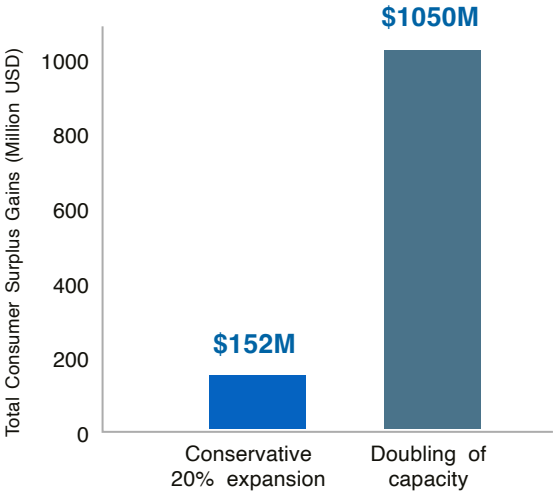
- **More Flights = Lower Fares:** The analysis shows a clear payoff to liberalisation: each 1-percent increase in passenger volume from India to the UAE leads to roughly a 0.2-percent drop in average airfares. In other words, adding capacity and competition will make tickets cheaper for travellers, stimulating even more demand. This virtuous cycle can expand the market while reducing costs for consumers.
- **Heterogeneity in Directions and Other Factors:** UAE-to-India flight fares will be less responsive to liberalisation than India-to-UAE flights. Long-haul traffic reduces fares by 0.044 percent due to hub efficiencies and increased demand.

The UAE and India stand at the cusp of an aviation boom—if they choose to seize it.



- **Significant Consumer Savings:** Liberalising air services would generate substantial welfare gains for Indian travellers. A phased 5-percent annual increase in bilateral seat capacity is projected to add over US$152 million in consumer surplus by 2028 (directly adding to Indian travellers' savings). A more ambitious doubling of capacity over five years could yield an economic benefit exceeding US$1.05 billion to Indian consumers. Thus, phased liberalisation up to 100 percent can generate savings for Indian consumers exceeding US$1.05 billion.

Figure 1: Total Projected Benefits for Indian Travellers from UAE-India Air Liberalisation



- **Route-Specific Opportunities:** Not all routes respond equally to added capacity. High-density city pairs (e.g., Delhi–Dubai, Mumbai–Dubai) are nearing saturation, showing smaller fare reductions with more flights, whereas certain routes (especially to smaller Indian cities) are highly price-sensitive—additional flights there can significantly lower fares and unleash pent-up demand. The study recommends targeting expansion on price-responsive routes, implementing reforms on supply-constrained routes (where demand far exceeds current supply), and closely monitoring stable routes that show minimal fare changes.

High Elasticity	Unresponsive	Saturated	
Route		**India-to-UAE**	**UAE-to-India**
Dubai-Bombay		0.076	0.045
Dubai-Delhi		0.129	0.135
Dubai-Cochin		-0.201	0.195
Dubai-Kozhikode		0.225	0.170
Dubai-Chennai		0.001	0.144
Dubai-Hyderabad		-0.086	0.266
Dubai-Bangalore		-0.131	-0.031
Abu Dhabi-Bombay		-0.343	-0.042
Abu Dhabi-Delhi		0.413	-0.311
Dubai-Ahmedabad		-0.078	0.032
Dubai-Trivandrum		-0.100	0.216
Dubai-Lucknow		-0.038	-0.604
Dubai-Kolkata		-0.331	-0.243

Economic Benefits of Liberalisation

Expanding India–UAE air links is not just about cheaper tickets; it is a catalyst for broader economic growth:

Job Creation: A liberalised approach to aviation will create thousands of jobs in both countries. From pilots and cabin crew to ground handlers, airport staff, and tourism workers, increased flight operations stimulate employment across the aviation value chain. Supporting industries like hotels, restaurants, and retail will also benefit from higher passenger traffic.

Trade Expansion: Better connectivity strengthens trade and investment. More flight options and cargo capacity mean faster business travel and shipping, helping companies on both sides deepen partnerships. With UAE–India trade already at US$84 billion (including oil), liberalised air services can accelerate progress toward the US$100-billion (non-oil) trade target and beyond by making business interactions more convenient.

Tourism Growth: Easing travel barriers will boost tourist flows in both directions. Indian tourists are among the top visitors to the UAE, and UAE travellers (from holidaymakers to medical tourists) contribute significantly to India's tourism revenue. Affordable, frequent flights will encourage greater tourism exchange, regional connectivity, and cultural ties, translating to higher spending in local economies and improved people-to-people links.

Strategic Policy Recommendations

To capture these gains, the report urges a strategic, phased liberalisation of India–UAE air services. Key policy measures include:

Phased Capacity Expansion: Given India's robust growth trajectory, UAE-India flight capacity can be doubled over five years, with annually phased liberalisation of 20 percent. This steady expansion will meet rising demand while avoiding market shocks, leading to a 20-percent reduction in airfares. A controlled pace prevents sudden overcapacity and guards against traffic diversion to third-country hubs, ensuring sustainable growth for airlines in both countries. Even a gradual increase in bilateral seat entitlements by ~5 percent per year over the next four years, with a dynamic allocation mechanism to adjust based on demand, can lead to a 3.5-percent reduction in airfares.

Strengthen Hubs and Regional Connectivity: Invest in and enhance major Indian airports (Delhi, Mumbai, Bengaluru) as efficient international hubs in partnership with UAE carriers. Synchronise flight schedules to improve connections. Simultaneously, phase in UAE airline access to tier-2 and tier-3 Indian cities (e.g., Jaipur, Lucknow, Coimbatore) in a calibrated manner. This approach boosts connectivity for smaller cities while allowing Indian domestic carriers to partner (through codeshare/interlining) for last-mile connectivity, so regional airports grow alongside major hubs.

Skill Development and Training Collaboration: Launch a Bilateral Aviation Training Programme covering various aspects from pilot training to air traffic control and ground operations. Joint training and knowledge exchange will build capacity to support the expanded air services. By investing in human capital together, the UAE and India can ensure a skilled workforce ready to handle advanced aircraft, larger passenger volumes, and modern safety standards.

Sustainable Aviation Partnership: Make aviation growth green and future-ready. Collaborate on sustainable aviation fuels (SAF) research and production, and promote carbon-neutral airport operations. This includes sharing best practices on energy-efficient terminals, electric ground vehicles, and improved air traffic management. A sustainability focus will help both nations lead in climate-friendly aviation, aligning expansion with environmental responsibility.

Facilitate Travel and Tourism: Simplify and harmonise policies to make travel smoother. Expand visa-on-arrival privileges and offer long-term multiple-entry visas to frequent flyers, while streamlining digital visa processes. Implement fast-track immigration at major airports for pre-approved travellers (e.g., business executives and medical tourists) to reduce bottlenecks. Additionally, encourage dynamic scheduling (flexible flight slots during peak seasons or holidays) so airlines can better match capacity to surges in demand. These steps will improve the traveller experience and maximise tourism and business trips.

'Combined Sky' Vision: Move toward an integrated airspace framework. The two countries should work towards a Combined Sky agreement, harmonising air traffic management, safety standards, and regulatory procedures. As a first step, creating an India–UAE Virtual Aviation Corridor can streamline approvals, seamless slot allocation, and real-time airspace coordination between the two nations. Such integration will dramatically improve operational efficiency and position the India–UAE corridor as a model of cooperative airspace management.

Call to Action: Unlock the Opportunity Now

The evidence is clear: a well-planned expansion of India–UAE air services will drive economic growth, create jobs, boost trade and tourism, and strengthen bilateral ties. Policymakers in New Delhi and Abu Dhabi should seize this moment to implement a phased liberalisation roadmap. By acting now and coordinating closely, the UAE and India can usher in a new era of shared prosperity and connectivity.

The recommendation is unequivocal: adopt a strategic, phased approach to open up the skies, and do so with urgency. This will ensure that both countries stay ahead of demand, capitalise on mutual opportunities, and jointly secure their position as global aviation leaders. The time to act is now.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I.

Introduction

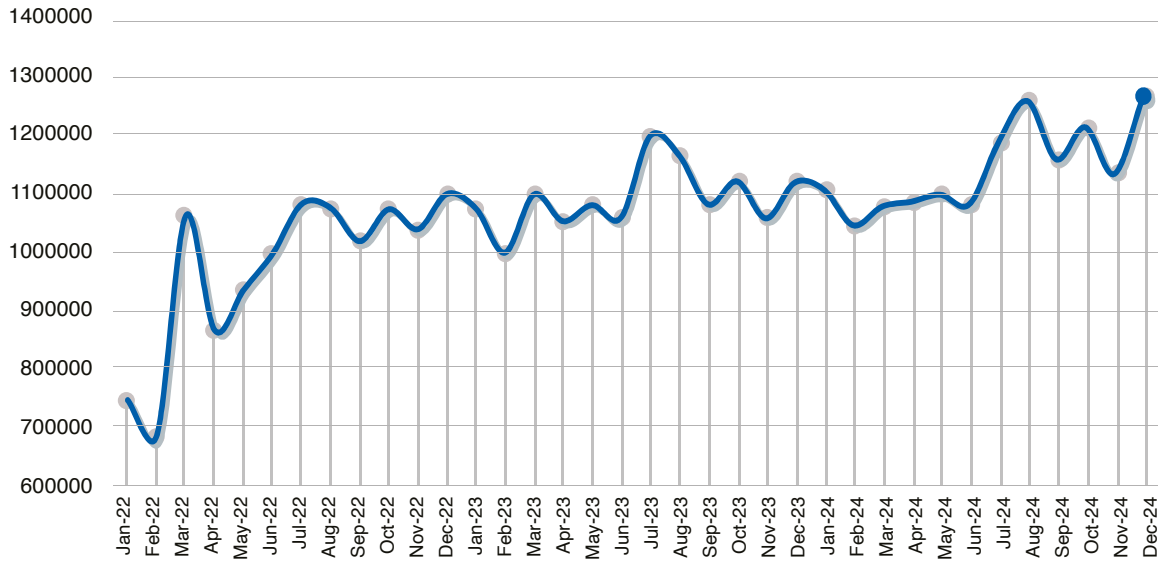
The United Arab Emirates (UAE) and India have nurtured a robust economic and strategic partnership over the past decades, formalised through multiple agreements aimed at deepening bilateral cooperation. India-UAE bilateral trade has increased from US$180 million in the 1970s to US$83.6 billion in 2023.[1] By FY 2023-24, the UAE had become India's third-largest trading partner and its second-largest export market. Foreign direct investment (FDI) has also risen, totalling US$19 billion between April 2000 and June 2024, making the UAE India's seventh-largest direct investor over this period.[2] The 2022 UAE-India Comprehensive Economic Partnership Agreement (CEPA) has played a

critical role in promoting bilateral trade and investment between the two nations. By the end of 2023, bilateral trade had increased by over 93 percent from 2021 levels, while FDI rose from US$1 billion in 2022 to US$2.9 billion in 2024.[3,4] Beyond increasing trade volumes, the CEPA has also facilitated trade diversification into non-oil exports.

Growing economic integration has necessitated greater physical connectivity for business and tourism exchanges. As a result, civil aviation has emerged as a pillar of UAE-India bilateral ties.

Recognising its potential to boost trade, investment, tourism, and cultural exchange, the UAE and India amended their 1989 Air Services Agreement (ASA) in January 2014. The ASA subsumed specific MoUs between India and constituent emirates of the UAE (Dubai, Abu Dhabi, Sharjah, and Ras Al Khaimah), specifying points of origin, intermediate points, destination points, and beyond points for each emirate-level bilateral air operation.[5] However, with the CEPA further strengthening economic ties and increasing travel demand, the ASA and the associated MoUs have not witnessed any additional seat entitlement. In this context, assessing this sector's expansion can highlight key opportunities. Civil aviation now plays a critical role in economic growth and development—delineating the need for enhanced bilateral agreements that promote air service operations.

Figure 2: Growth in UAE-India Passenger Traffic, 2022-2024



Source: Authors' own, OAG data

Since the first scheduled commercial flight in 1914,[6] the commercial aviation sector has grown exponentially, advancing global economic integration through increased connectivity. Airlines link countries, cities, and people, facilitating the flow of goods, services, and ideas across borders. The industry's growth has been chartered by regulatory frameworks put in place by governments and international bodies, with the 1944 Chicago Convention on International Civil Aviation establishing global aviation standards.[7] Through the years, the sector has faced various crises, including oil shocks, economic recessions, security threats like the 9/11 attacks, and the COVID-19 pandemic. Nevertheless, propelled by technological innovations, the industry remains vital to globalisation and economic growth.[8] Over the past century, the industry has evolved into a cornerstone of global economic activity, transporting close to 5 billion passengers[9] and carrying up to US$8 trillion worth of cargo annually,[10] contributing substantially to employment, trade, tourism, and Gross Domestic Product (GDP).

Given the increasing relevance of aviation globally, bilateral agreements provide frameworks for strengthening economic integration while balancing national interests. These agreements define the terms for airline operations, market access, fair competition, and safety compliance, enhancing trade and connectivity. Liberalised agreements, such as Open Skies policies, remove restrictions, thereby fostering growth in passenger and cargo traffic. Traffic growth can boost tourism, create employment, and promote economic development. Bilateral agreements also foster competition, benefiting consumers and attracting FDI by providing access to global markets. By allowing multiple airlines on the same routes, these agreements encourage competitive pricing and better service quality.

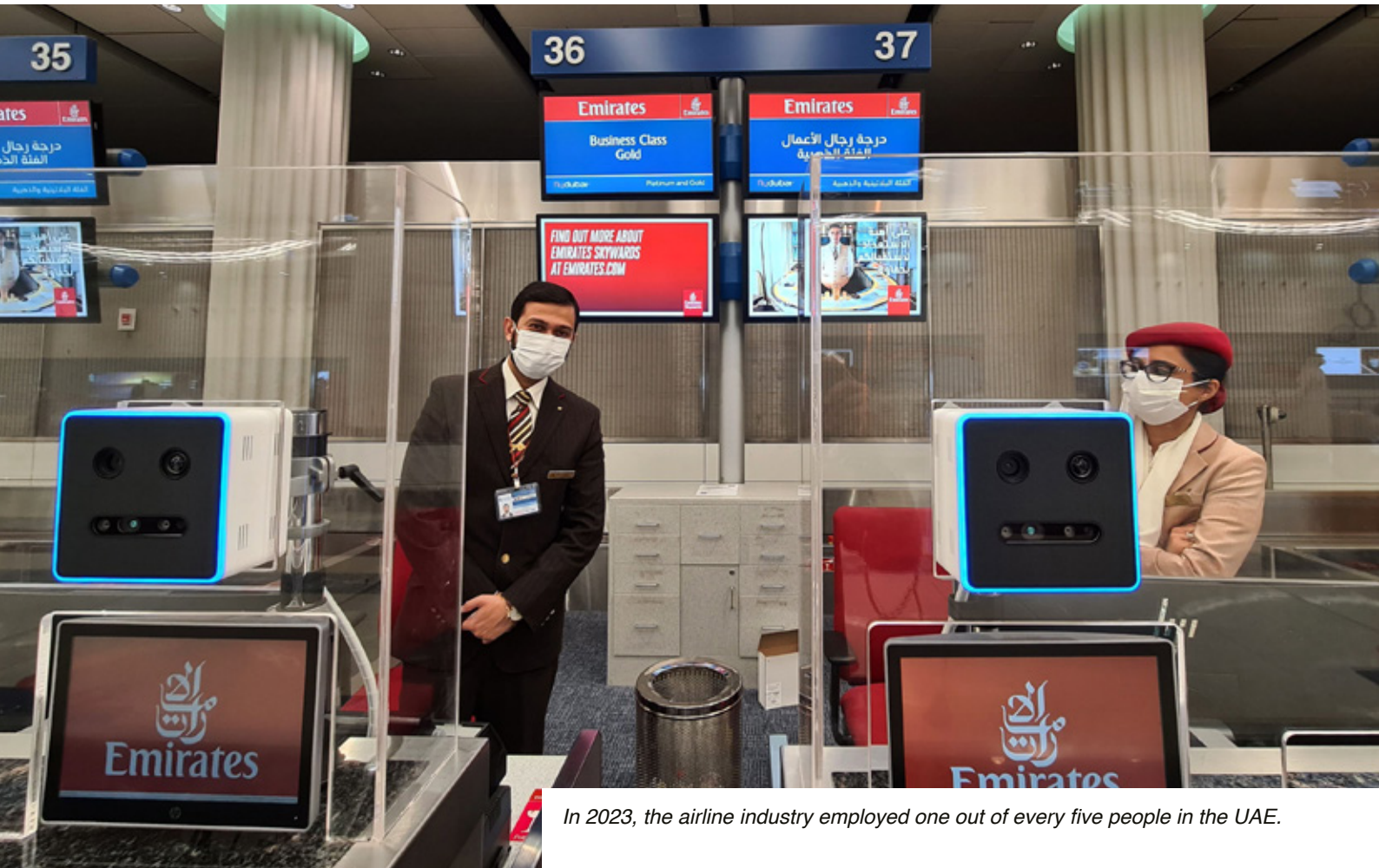
A World Trade Organization (WTO) paper found that increasing liberalisation between two countries from the 25th to the 75th percentile boosts air traffic by 30 percent.[11] These outcomes translate to higher consumer spending, expanded business operations, and increased FDI, fostering long-term economic growth in the connected regions. InterVistas research indicated that the liberalisation of ASAs has globally increased traffic by 12-35 percent on average, compared to pre-liberalisation years, and growth rates exceeding 50 percent in some cases.[12] Another InterVistas study estimated that the potential market access liberalisation in India during the 2003-09 period could have resulted in a traffic increase of 11.8 million passengers, generating 910,000 direct and indirect new jobs. Average fares were estimated to decrease by 31 percent, with consumer surplus increasing by approximately INR 20.8 billion to INR 62.3 billion.[13] This gain underscores the economic benefits of liberalisation, allowing consumers to access services at lower prices than their willingness to pay.

The airline industry contributes to economic growth by creating both direct and indirect job opportunities. In 2023, it provided 11.6 million direct jobs,[14] employing one out of every five people in the UAE,[15]

and created 20.7 million indirect jobs. According to the Aviation's Benefits Report, every person directly employed in the aviation and tourism sector supported another 6.5 jobs in 2019,[16] including jobs in the manufacturing sector, tourism, construction, logistics, and local transport such as cab drivers. In 2023, globally, the aviation sector transported 4.4 billion passengers, supporting 86.5 million jobs and generating an economic impact of US$4.1 trillion. The International Air Transport Association (IATA) projects that the industry will contribute US$8.5 trillion by 2043 to global GDP, supporting approximately 135.4 million jobs.[17]

The tourism sector is directly dependent on the aviation sector as well, as airlines facilitate the fast and easy movement of travellers across countries. In 2023, 60 percent of the 1.3 billion travellers,[18,19] flew to their destinations. The global tourism industry, worth US$9.89 trillion,[20] created 326 million job opportunities in 2023. It also drives economic growth and builds strong economic resilience,[21] contributing up to 18 percent of GDP in developing countries like Thailand.[22]

Additionally, air transport facilitates the rapid movement of goods, particularly high-value and time-sensitive products, enhancing supply chain efficiency and reducing time-to-market. Over 33 percent of traded goods in 2023 were transported by air.[23]



In 2023, the airline industry employed one out of every five people in the UAE.

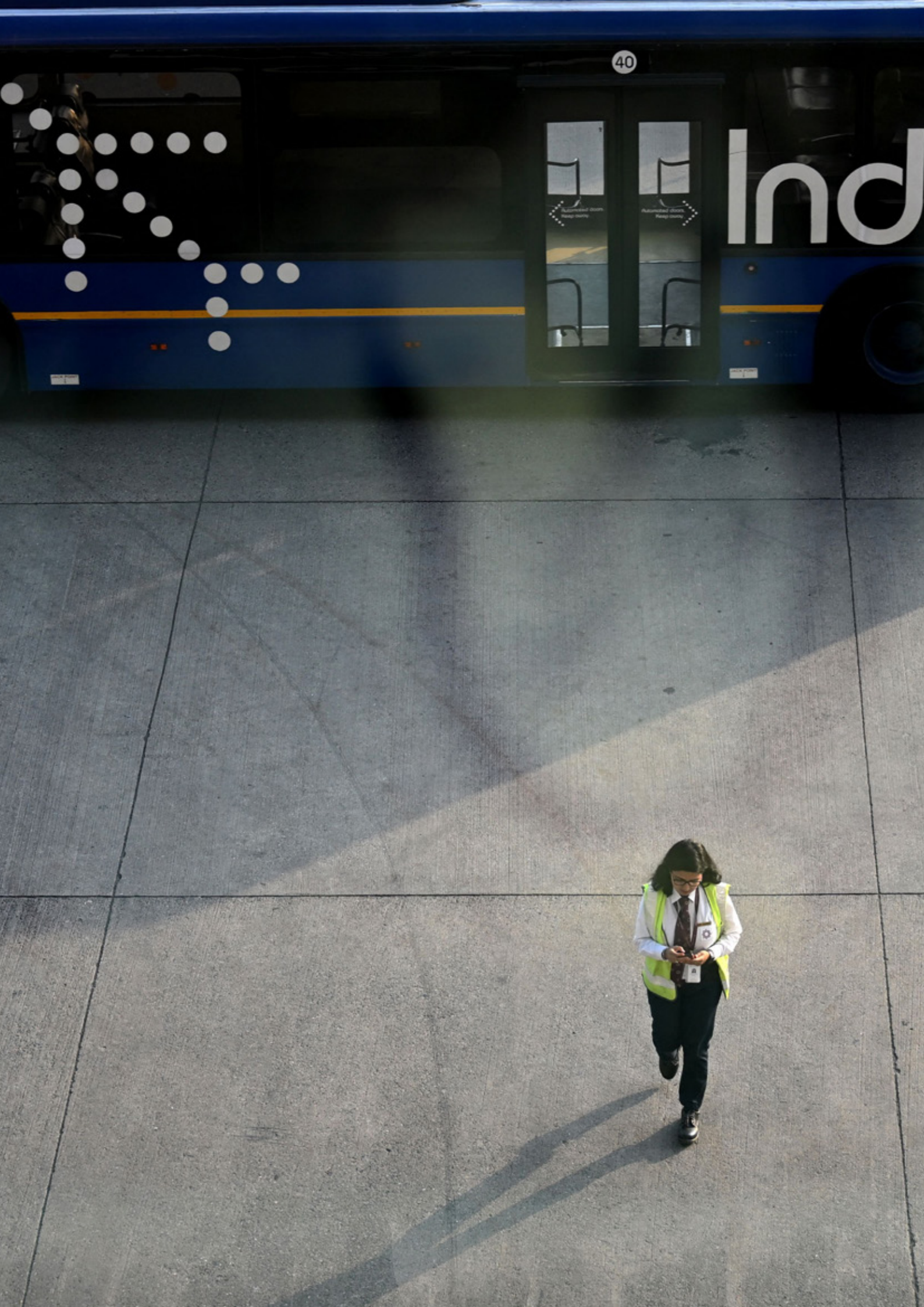
With increased air connectivity, companies can expand their geographic reach, operate in multiple markets, and leverage new business opportunities. Increased air connectivity is also linked to higher labour productivity, total factor productivity, and long-term GDP growth.[24] Furthermore, code-sharing and airline alliances optimise operations, increasing efficiency and lowering operational costs.

However, despite the benefits, some nation s hesitate to fully liberalise aviation due to the challenge faced by home carriers in the form of increased competition and loss of market share.[25] National pride attached to 'flag carriers'[a] has often encouraged protectionist policies, especially since the benefits to consumers, tourism, and other multiplier impacts are difficult to quantify. Nevertheless, several Asian flag carriers, including Singapore Airlines, Qatar Airways, and Emirates, have greatly benefitted from liberalisation.[26] While increased competition may reduce the profitability of home carriers, it also offers opportunities for market expansion, traffic growth, and overall market stimulation.[27]

This report examines the impact of UAE-India air services liberalisation on consumer surplus gains. It first explores the civil aviation industries of both nations and their bilateral cooperation, which has forged a strong and lasting relationship. To build a case for market liberalisation, the report undertakes econometric analysis estimating both macro-level consumer benefits and route-specific feasibility.

It concludes with micro- and macro-level recommendations to enhance the aviation relationship through the revision of agreements and the creation of innovative mechanisms to bolster air traffic.

[a] Airlines owned by or representing the national identity of the state.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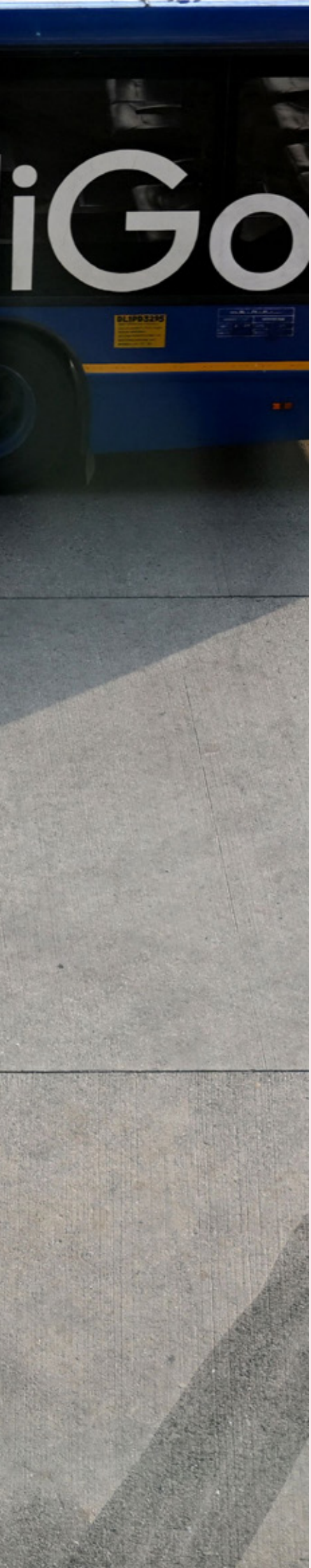


II.

The National Civil Aviation Industries and Bilateral Cooperation

It is necessary to understand the role of each nation's civil aviation industry in national development. Their evolution, sectoral contribution, and developmental impact highlight the need to focus on aviation. The scope of benefits extends beyond tourism and business, directly affecting the domestic macroeconomy. This section delves into the UAE's and India's civil aviation industries and discusses how cooperation has shaped the relationship between the two nations.

The Indian Aviation Industry

The history of India's commercial aviation industry has closely mirrored its post-independence economic trajectory. After independence in 1947, India adopted a strategy of self-reliant economic growth, emphasising planned development and the fostering of domestic industries to reduce dependence on external actors. This saw the nationalisation of many domestic industries, including the aviation sector. The Air Corporations Act, signed in 1953, nationalised the Indian aviation sector,[28] merging eight formerly independent domestic airlines into two entities: Indian Airlines for domestic operations and Air India for international operations.

The aviation industry remained monopolistic for the next 40 years. India decided to open its economy to the world and adopt liberalisation and privatisation in 1991. In 1994, the Air Corporations Act was repealed, allowing private airlines to operate scheduled services,[29] following which six private airlines began domestic operations. Although this caused a reduction in market share and increased competition for India's flag carriers, it led to a surge in air traffic and a reduction in airfares. Liberalisation opened up air travel to millions of Indians, a privilege that had previously been limited to the elite. Subsequently, India's air traffic grew from 10.7 million passengers in 1991[30] to 376

million in 2024,[31] four times the growth experienced during 1953-1991.

India's aviation industry has witnessed exponential growth in recent years, making it the world's third-largest domestic aviation market after the United States and China.[32] In 2024, passenger traffic increased by 15 percent year-on-year, while freight traffic rose by 7 percent.[33] India currently has 157 operational airports, out of which 35 operate internationally,[34] with plans to expand to 220 by 2025 and to 400 by 2047.[35] As of November 2023, India's aviation industry comprised 11 scheduled operators, 81 foreign carriers for scheduled passenger air transport, and 16 foreign carriers for scheduled all-cargo air transport, all holding Air Operator Certificates (AOCs).[36]

While the Indian aviation market has expanded, financial sustainability remains a concern. Several airlines have faced bankruptcy or financial distress, with Kingfisher Airlines shutting down in 2012 and Go First suspending operations in 2023. Air India, now under Tata Group ownership, is restructuring, while IndiGo continues to dominate the domestic market. However, Indian carriers lag behind UAE airlines in terms of fleet modernisation and global connectivity. Emirates, Etihad, Air Arabia, and FlyDubai operate extensive

hub-and-spoke networks, leveraging economies of scale, whereas Indian carriers are still developing competitive international hubs in Delhi, Mumbai, and Bengaluru.

Another critical constraint to the sector's growth is the limited infrastructure at key airports. Hubs such as Delhi, Mumbai, and Bengaluru face severe slot congestion, particularly during peak hours, limiting their ability to accommodate increased flight operations. Furthermore, tier-2 and tier-3 airports cannot often handle long-haul international carriers, especially those involving widebody aircraft.

These disparities, coupled with regulatory challenges that delay aircraft acquisition and route approvals, highlight the need for infrastructure investment to support expanded international air services.

Despite these constraints, India's aviation industry presents immense growth potential. Today, the sector contributes 5 percent to GDP, employs 4 million people, and generates an estimated US$72 billion in gross value added annually. Additionally, its supply chains create an additional 5 million jobs. India's aviation market is projected to double its revenue by 2030.[37] Strategically expanding air connectivity with the UAE can unlock economic benefits, boost trade, and improve consumer choice.

UAE Aviation Industry

Established in 1971, the UAE, given its geographically strategic location, recognised aviation's potential as a catalyst for economic growth, at an early stage. In 1972, it joined the International Civil Aviation Organisation (ICAO), signifying its commitment to aviation standards and cooperation.[38] Notably, Sharjah became home to the Arabian Gulf's first airport in the 1930s.[39] Since the 1980s, the UAE has signed 187 air transport agreements or memoranda, primarily Open Skies agreements with its partners, negotiating the most liberal agreements possible where Open Skies agreements were not possible, thus fostering aviation sector growth.[40] Contributing approximately 13 percent to GDP, the UAE's aviation sector has emerged as a critical node of its global economic partnerships, supported by continuous investment in aviation infrastructure, positioning the country as a global transit hub.[41]

With 189 air cooperation agreements, the UAE ranks highest globally in air transport agreements.[42] It has eight international airports and six national carriers, including Emirates Airlines, Etihad Airways, FlyDubai, Air Arabia, Air Arabia Abu Dhabi, and Wizz Air Abu Dhabi.[43] One of the world's busiest airports—Dubai International Airport (DXB)[44]—consistently leads in global capacity. Meanwhile, the upcoming Al Maktoum International Airport, set to be the world's largest, aims to revolutionise passenger and cargo handling with a capacity of up to 260 million passengers annually.[45]

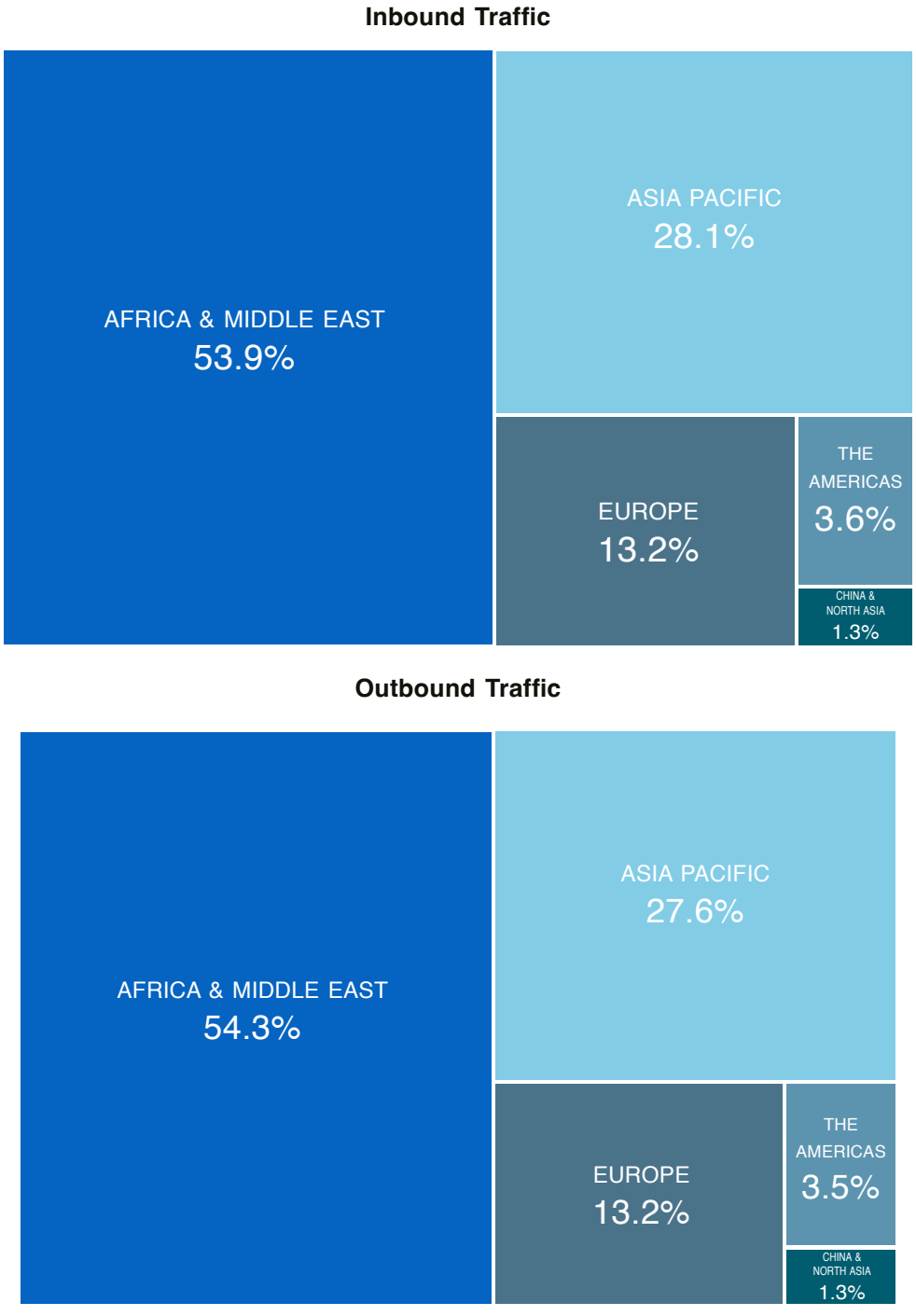
The aviation sector contributed as much as US$47.4 billion to the UAE's economy, accounting for 13.3 percent of GDP and supporting approximately 800,000 jobs in 2019. After the slowdown during the COVID-19 pandemic, the aviation sector has now recovered to 110 percent of its 2019 level.[46] According to International Air Transport Association (IATA) projections, it is expected to grow by 170 percent over the next two decades, resulting in 101 million passenger flights by 2037, generating 1.4 million jobs, and contributing approximately US$127.7 billion to the national economy.[47] The UAE has been at the forefront of modernising fleets and advancing sustainability. UAE airlines operate some of the youngest aircraft globally, with ages averaging 12-15 years.[48] The General Civil Aviation Authority's (GCAA) Open Sky project and issuance of the 7th freedom of air transport rights—allowing for unrestricted overflights and shorter flight paths—have improved competitiveness and efficiency while minimising environmental impact.[49] Long-term investments like the Al Maktoum International Airport, advancements in technology-driven solutions, and a focus on knowledge-based transformations[50] underscore UAE's commitment to scaling aviation capacity and improving passenger experiences. These efforts align with the country's environmental sustainability goals and reinforce its leadership in global aviation.

UAE-India Bilateral Relationship

Since the 1990s, the UAE-India partnership has strengthened through trade, investment, and labour migration. Bilateral trade grew from US$180 million in the 1970s to US$83.65 billion as of 2023, making the UAE India's second-largest export destination, third-largest trade partner and the seventh-largest investor with FDI inflows worth US$19 billion between April 2000 and July 2024.[51] In 2023, India accounted for 9 percent of the UAE's total foreign trade, making it its second-largest trading partner.[52] Additionally, the UAE hosted around 3.47 million Indians in 2020, making it the largest expatriate community in the country. With remittances from abroad being a major component of the Indian economy, totalling US$111 billion in 2022 alone,[53] highlight the need for increased connectivity between the nations.

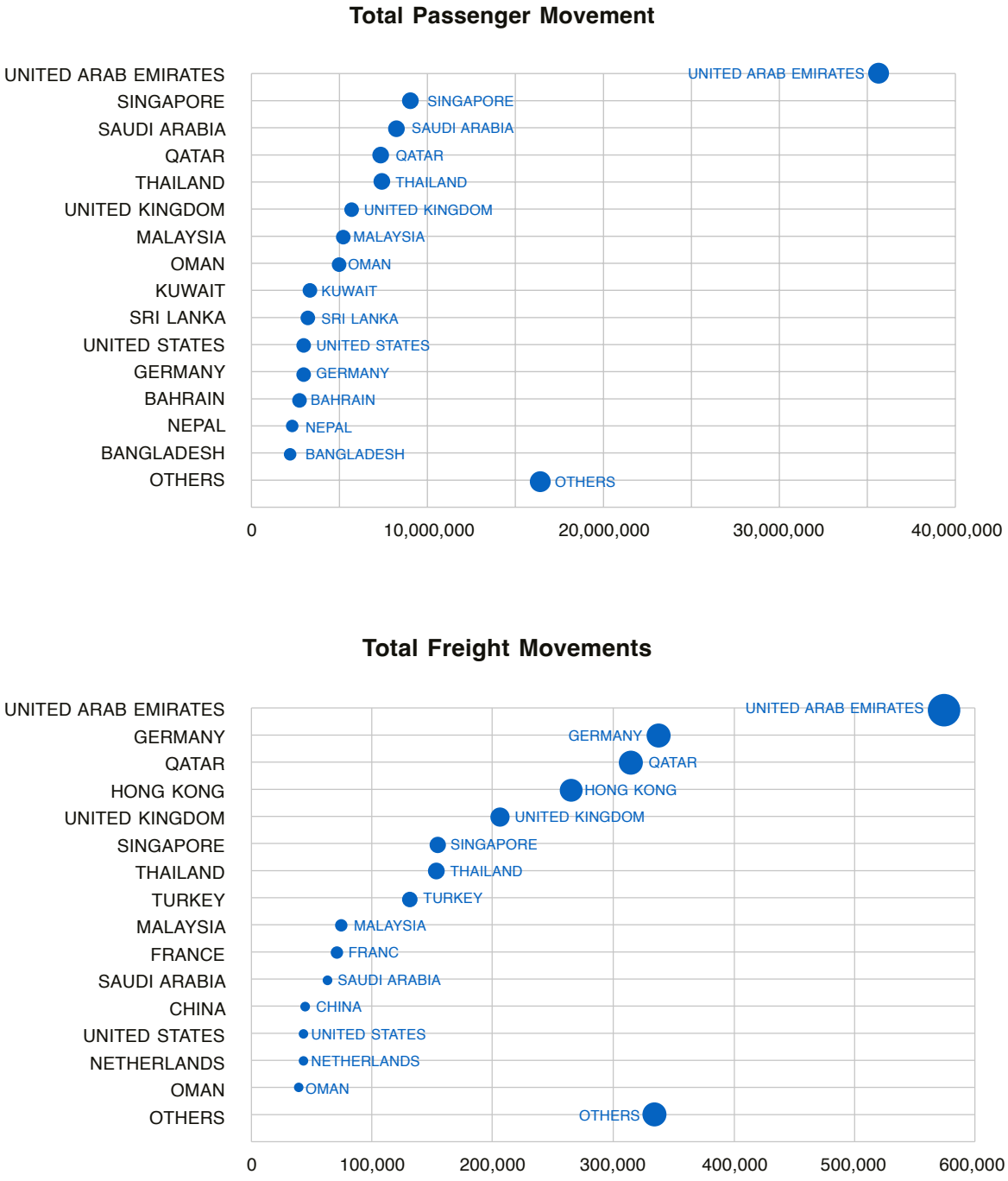
Africa and the Middle East are the biggest markets for India's international air traffic. In 2023-24, these regions together accounted for 54 percent of both inbound and outbound international passenger traffic, with the Asia-Pacific region following closely behind (see Figure 1).[54] The UAE alone accounted for 30 percent of all passenger movements and 20 percent of freight movements to and from India (see Figure 2).[55] Approximately 9 million passengers travelled from the UAE to India in 2023.[56]

Figure 3: Distribution of India's International Passenger Traffic, in % (2023-24)



Source: Handbook of Statistics, DCGA[57]

Figure 4: Total Passenger & Freight Movements to and from India (2023-24)



Source: Authors' own (Data from DGCA, International Operation)[58]

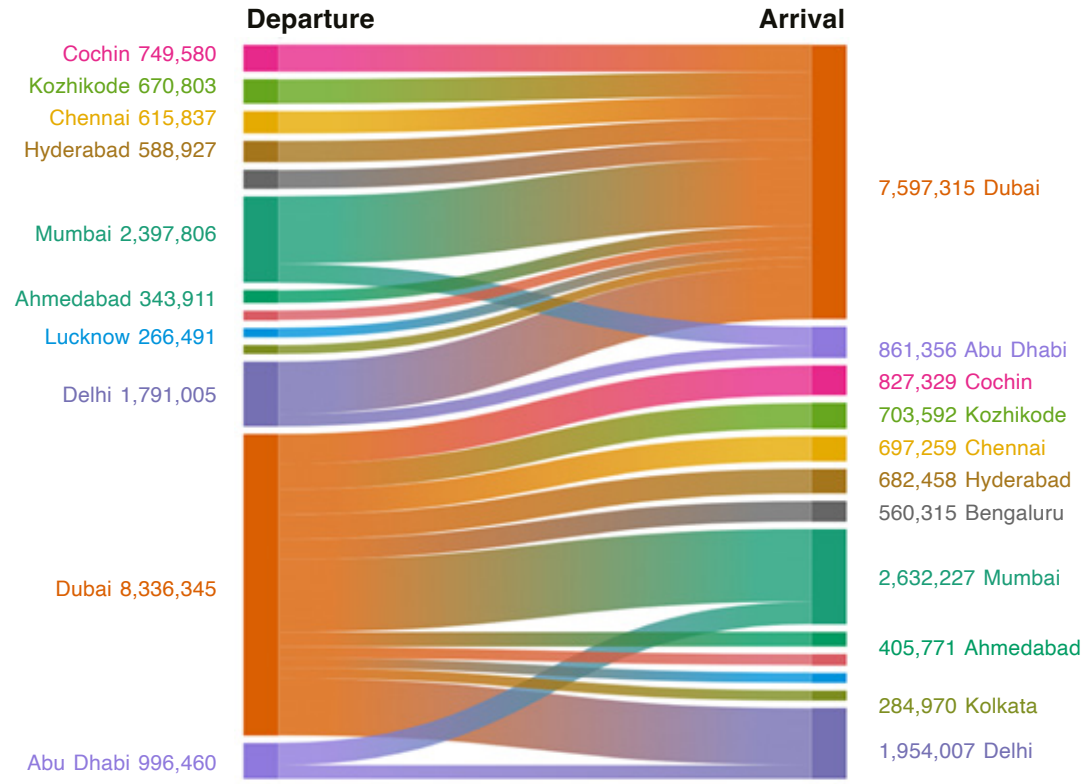
A 2015 study by the National Council of Applied Economic Research in India found that Emirates Airlines' operations in India contributed approximately US$848 million annually to India's GDP, supporting over 86,000 jobs and generating US$1.7 billion in foreign exchange earnings.[59]

The UAE and India have both reached their maximum bilateral capacity for designated carriers, with only limited capacity remaining for Indian airlines to operate out of Abu Dhabi. This further highlights the need for review and expansion of the existing ASA for additional bilateral rights.

Air connectivity is essential for the growth of bilateral trade between the two countries. Between 2014 and 2024, both countries signed 88 Memorandums of Understanding (MoUs).[60] The CEPA,[61] signed in 2022, aims to increase non-oil bilateral trade from US$60 billion to US$100 billion by 2027. This is poised to create a surge in the export of perishable goods, including medicine and food, from India to the UAE,[62] necessitating strengthened supply chains between the two countries. The 2024 Bilateral Investment Treaty is anticipated to further encourage investments across several industries.[63] Founded in 2013, the High-Level Joint Task Force on Investments has worked toward broadening the scope of economic cooperation. At its 12th meeting in October 2024, both countries reaffirmed their commitment to boosting trade and investment.[64]

The UAE and India have signed multiple MoUs related to air transportation over the past three decades. In April 2008, an MoU was signed to revise air service operations between the two countries. In 2007, officials from the two countries met to discuss the expansion of UAE-based airline operations[65] to seven additional Indian cities—Bengaluru, Hyderabad, Thiruvananthapuram, Ahmedabad, Chennai, Kozhikode, and Kochi. Following this meeting, only two of these cities—Kochi and Thiruvananthapuram—were included as additional points of call for designated UAE Airlines. In 2013, an MoU between India and the emirate of Abu Dhabi was signed, which increased bilateral seat entitlements from 13,330 seats per week to 50,000 seats per week over three years and granted designated airlines of both countries change-of-gauge facilities in each other's territory.[66] In January 2014, the UAE-India ASA was revised to modernise the bilateral air services framework, adding eight additional destinations in India for UAE airlines. UAE carriers were limited to operations to 15 Indian cities, while Indian carriers were granted unrestricted operations from any city in India to the UAE. In February 2015, a further liberalisation of the MoU between India and the emirate of Dubai increased weekly bilateral seat entitlement from 55,000 in 2014 to 66,000 in 2015.[67] The UAE has expressed a consistent interest over the years in exploring an Open Skies Agreement with India as a means to bolster aviation and boost bilateral ties between the two countries.

Figure 5: UAE-India Passenger Traffic along High-Density Routes, 2022-2024



Source: Authors' own, OAG data

> ***Air connectivity is essential for the growth of bilateral trade between the two countries.***

Unlike most ASAs and emirate-level MOUs that are subsumed under this agreement, which focus on regulating flight frequencies and aircraft types, the UAE-India ASA has emphasised seat capacity allowing airlines to optimise aircraft usage without technically increasing flight frequencies. Moreover, operating under Emirate-specific MoUs within a national-level agreement has ensured that traffic rights and capacities are allocated at the level of Dubai, Abu Dhabi, Ras Al Khaimah, or Sharjah rather than the UAE as a whole, creating unique regulatory conditions for specified routes. As the UAE and India forge closer economic ties, improving air connectivity will be imperative for facilitating the exchange of people, goods, and culture. Aviation diplomacy[68] can play an important role in establishing and expanding this diplomatic relationship between the two countries. To substantiate the case for expanding air activity between the two nations, a quantitative analysis of costs and benefits is necessary. The next section examines the economic benefits of air service expansion and estimates the net benefits under different scenarios.

III.

Econometric Modelling of Benefits and Feasibility

Despite the UAE's liberal approach to air service agreements, the current regulatory arrangements with India remain restrictive. These restrictions often encompass limitations on capacity, designated airports, approved airlines, and pricing control. Such constraints can stifle air travel, tourism, and business, thereby hindering economic growth and job creation. Such restrictions have constrained market forces, limiting and even depleting benefits accruing to both passengers and airlines. Conventional economic theory shows that quantity caps are sub-optimal for private goods, implying that surplus is lost due to restrictions on free markets. Fixing the number of seats

at a sub-optimal level can cause prices to stagnate at higher than equilibrium levels and distort the potential consumers' surplus.

The period from 2022 to 2024 offers a unique vantage point to assess the post-pandemic dynamics of India-UAE air travel. During that period, both nations experienced a robust resurgence in air passenger traffic. India's domestic air passenger traffic reached 154 million in the 2023-24 financial year, surpassing pre-pandemic levels.[69] Similarly, Dubai International Airport (DXB) handled a record number of passengers in 2024, with a major portion of this traffic originating from key markets like India.

Analysing data from this period reveals how the existing bilateral air service agreement has influenced the recovery trajectory and whether current restrictions have impeded or facilitated growth. Disparities in fare elasticities between India-to-UAE and UAE-to-India routes underscore the need to revisit and potentially liberalise the existing agreement to better accommodate evolving market dynamics and passenger demand.

Based on aggregated OAG data, we analyse both macro and route-specific demand relationships. The 2022-24 period provides insight into the bilateral relationship in the post-pandemic period. Data frequencies are selected to support result formulation and enhance practical significance.

Model 1: Estimating the Macro-Level Inverse Demand Curve

Part 1: Estimating India to UAE Demand

Consider the relationship between price and quantity. The price level at different quantities yields the inverse demand curve. It allows us to assess the fares at various demand levels.

$$P = f(Q)$$

For estimation, the monthly average fare is considered to be the price, while the total number of passengers from India to the UAE on an origin-and-destination basis serves as the quantity.

Passenger volume directly reflects market demand. An increase in passengers can lead to economies of scale, potentially reducing per-passenger costs and fares. Conversely, higher demand can also allow airlines to charge premium prices, especially when capacity is constrained. The proportion of long-haul passengers affects pricing strategies, as routes with more long-haul traffic face different competitive pressures and cost structures, influencing average fares. Airlines operating multiple long-haul routes may adjust

pricing based on network considerations, balancing demand across interconnected routes.

Fuel is a major component of airline operating expenses. Fluctuations in fuel prices directly affect operational costs, prompting airlines to adjust fares to maintain profitability. Research indicates a strong correlation between rising fuel costs and increased airfares, as airlines pass the additional costs on to consumers.

Intuitive Assumptions Underpinning the Model

- The model assumes that other potential influences on airfares (e.g., regulatory changes, sudden economic shifts, or unexpected events) remain constant during the analysis period. This isolation allows for a clearer assessment of the specified variables' effects.

- The model presumes a linear relationship between the dependent variable (average fare) and each independent variable. While this simplifies analysis and interpretation, real-world relationships may exhibit non-linear characteristics.

- The model assumes that the independent variables are not highly correlated with each other. High multicollinearity can distort the estimation of individual variable effects and compromise the model's reliability.

- The analysis presumes consistent market conditions across the study period, implying that factors like competition levels, regulatory environments, and economic climates do not vary significantly.

The econometric model is specified as:

$$\ln(AverageFare_t) = \alpha + \beta_1 \ln(Passengers_t) + \beta_2 \ln(LonghaulPassengers_t) + \beta_3 \ln(FuelPrice_t) + \varepsilon_t$$

The regression yields the following estimated equation for India to UAE flights:

$$\ln(AverageFare_t) = 9.11 - 0.228 \ln(Passengers_t) - 0.044 \ln(LonghaulPassengers_t) + 0.065 \ln(FuelPrice_t)$$

Interpreting the coefficients

β1: A 1 percent increase in the number of passengers is associated with a 0.228 percent decrease in the average monthly fare. This negative elasticity suggests that as passenger demand rises, airlines can reduce fares, due to economies of scale or competitive market dynamics.

β2: A 1 percent increase in long-haul passenger volume correlates with a 0.044 percent decrease in the average monthly fare. The modest negative elasticity indicates that a higher proportion of long-haul passengers slightly reduces fares, potentially due to increased route efficiency, competitive pricing strategies on long-haul routes and due to the benefits of hub airports.

β3: A 1 percent increase in fuel prices leads to a 0.065 percent increase in the average monthly fare. This positive elasticity reflects the direct impact of fuel costs on operational expenses, prompting airlines to adjust fares upward to maintain profitability.

Part 2: Estimating UAE to India Demand

The model has been revised to exclude long-haul traffic from the UAE-to-India fare model. Its inclusion introduced spurious correlations and an unexpected positive demand elasticity, due to measurement issues and structural market differences. Unlike the India-to-UAE segment, where long-haul transit passengers primarily influence pricing, the UAE-to-India route primarily serves point-to-point travellers, including expatriate workers, tourists, and business passengers. These travellers are less impacted by global long-haul passenger flows, making fluctuations in transit numbers largely irrelevant to fare determination. Including long-haul traffic in the model may have captured noise rather than a causal relationship, leading to misleading results, such as a positive fare elasticity of demand, which contradicts standard economic theory. By removing this variable, the model remains robust, ensuring that the estimated elasticities of

annual seasonal volatility was calculated to check this. It found that seasonal volatility remains consistently higher on UAE to India routes across the three years.

passengers and fuel prices reflect actual market dynamics rather than distortions from irrelevant data.

The revised estimated model is:

$$\ln(AverageFare_t) = 6.554 - 0.057\ln(Passengers_t) - 0.115\ln(FuelPrice_t)$$

The negative fuel price elasticity in the UAE-to-India regression can be explained by the route's high seasonal demand variation, particularly due to expatriate worker travel patterns and holiday peaks. Unlike the relatively stable India-to-UAE segment, which is influenced by long-haul demand, UAE-to-India flights experience sharp fluctuations around festival seasons, summer vacations, and repatriation periods. During these peaks, fares may drop despite rising fuel costs, as airlines prioritise full capacity and ancillary revenue (e.g., baggage fees, premium seating)[b]. Additionally, a rise in fuel prices may coincide with increased airline promotions to sustain high load factors, particularly in an extremely price-sensitive market like UAE-to-India. The negative elasticity thus reflects demand-driven pricing, where airlines use seasonal revenue management strategies that override standard cost-pass-through mechanisms.

Financial sustainability remains a concern for Indian airlines, with Kingfisher Airlines shutting down in 2012.

The lower fare elasticity (-0.057) in the UAE-to-India case, compared to the India-to-UAE case (-0.228), reflects the inelastic nature of demand on this route, largely due to seasonal repatriation patterns, point-to-point travel dominance, and lower competition-driven fare adjustments. Unlike the India-to-UAE sector, where long-haul traffic and business-driven travel create greater fare responsiveness, the UAE-to-India segment is primarily driven by expatriate workers and visiting families with limited flexibility in travel timing and route choices. As a result, even when fares decrease, passenger volumes do not increase beyond seasonal peaks. Furthermore, airlines also employ route-based revenue management, keeping fares relatively stable despite fluctuations in operational costs like fuel prices, particularly during high-demand repatriation seasons. This explains the negative but lower price elasticity and why fares in this direction are less sensitive to competitive pressures than in the India-to-UAE segment.

Part 3: Estimating Consumer Benefits

To estimate consumer benefits from increased passenger flow, we use the concept of consumer surplus, which is the difference between the actual price and the consumer's willingness to pay. The aggregate across all consumers yields the consumers' surplus. The consumers' surplus can also be interpreted as the savings accruing to consumers due to change in market prices. We also assume that the entire benefit accrues to Indian consumers since the share of UAE travellers in aggregate traffic is negligible (less than 1 percent).

Now, let us consider the increase in consumers' surplus from an increase in passenger flow between India and the UAE. (We are only considering origin-destination traffic here).

$$\Delta CS = \frac{1}{2}(P_1 - P_2)(Q_1 + Q_2)$$

Under different liberalisation scenarios, the gain from India-to-UAE flights is given below:

Liberalisation Scenario	Initial Passengers	Initial Fare	Passenger Increase	Final Passengers	Elasticity	Final Fare	CS gain (US$)
5 percent	642,971	282	0.05	675,119.6	0.228	278.7852	2,118,699
10 percent	642,971	282	0.1	707,268.1	0.228	275.5704	4,340,749
15 percent	642,971	282	0.15	739,416.7	0.228	272.3556	6,666,150
20 percent	642,971	282	0.2	771,565.2	0.228	269.1408	9,094,902

Now, similarly for UAE-to-India traffic:

Liberalisation Scenario	Initial Passengers	Initial Fare	Passenger Increase	Final Passengers	Elasticity	Final Fare	CS gain (US$)
5 percent	627,208	357	0.05	658,568.4	0.057	355.9826	654,106.6
10 percent	627,208	357	0.1	689,928.8	0.057	354.9651	1,340,121
15 percent	627,208	357	0.15	721,289.2	0.057	353.9477	2,058,043
20 percent	627,208	357	0.2	752,649.6	0.057	352.9302	2,807,872

We calculate the cumulative gains from liberalisation on to and from routes between India and UAE.

Thus, for a 5-percent liberalisation scenario over 2025,

Increase in passengers	Consumer Surplus Gain (US$)
76,2107.4	33.27 million

For 10-percent liberalisation over 2025,

Increase in passenger	Consumer Surplus Gain (US$)
152,4215	68.17 million

For 15-percent liberalisation over 2025,

Increase in passenger	Consumer Surplus Gain (US$)
2,286,322	104.69 million

For 20-percent liberalisation over 2025,

Increase in passenger	Consumer Surplus Gain (US$)
3,048,430	142.83 million

Under a conservative gradual liberalisation scheme over the next four years where air traffic is increased across both routes by 5, 10, 15 and 20 percent, respectively, the net future value is calculated below:

Year	Expansion	Traffic Gain	Consumer Gain (US$)
2025	5	762,107	33,273,664
2026	10	762,107	34,896,770
2027	15	762,107	36,519,875
2028	20	762,107	38,142,981
Net Future Value		US$ 152.38 million	

We consider the Net Future Value of the stream of benefits to estimate the return on the liberalisation programme at the end of the period. Compounding the benefits at the interest rate gives a better measure of the aggregate benefit generated to India-UAE passengers over the liberalisation period.

It is found that the NFV of a 20-percent liberalisation over four years, via 5-percent conservative incremental liberalisation, generates consumer gains of US$152 million. Thus, the future value of savings generated for Indian consumers would exceed US$150 million. Under this current conservative liberalisation under the Business-As-Usual scenario, there is a 3.5-percent reduction in flight fares.

Now, we consider a more optimistic doubling of capacity scenario. We suggest 20-percent liberalisation annually over a period of five years. The benefits generated would be as follows:

Year	Net Liberalisation	Consumer Gain	NFV
2025	20%	142,833,290.2	170,331,355.3
2026	40%	168,802,979.3	192,632,241.8
2027	60%	194,772,668.4	212,696,623.2
2028	80%	220,742,357.6	230,675,763.6
2029	100%	246,712,046.7	246,712,046.7
	NFV		1,053,048,031

Thus, under this optimistic scenario of capacity doubling, net benefits of over US$1.05 billion are generated for Indian consumers. This also entails a reduction in ticket prices for India-UAE flights of around 20 percent, i.e., over US$ 60 on India-to-UAE flights. Thus, revision to the current regulatory arrangements can generate benefits for Indian consumers ranging from US$152 million to US$1.05 billion.

Model 2: Route-Specific Analysis

Part 1: Estimation of Panel for High-Density India-UAE routes

We use panel data models to refine the demand-price relationship analysis. The decision to use a panel model for high-density India-to-UAE routes, following macro-level fare elasticity estimation, is driven by the need for a more granular, route-specific analysis that accounts for heterogeneous market dynamics.

While the macro regression provides an aggregate elasticity estimate, it assumes a homogeneous effect across all routes, which may overlook variations in competition, airport constraints, and airline pricing strategies on specific routes.
This panel data model assumes:

- Fixed route characteristics – Factors like airport capacity, competition levels, and regulatory restrictions remain stable over time.

- Common pricing strategies – Airlines employ similar fare-setting mechanisms across routes within the panel.

- Demand-side stability – Passenger preferences and behaviour on these routes remain relatively predictable.

- Limited substitution effect – Travellers on these routes are less likely to switch to alternative destinations based on minor fare variations.

The model is specified as:

$$\ln(Fare_{it}) = \alpha + \beta ln(Passengers_{it}) + \sum \gamma_i + \varepsilon_{it}; i = 1,..,13; \quad t = 1,..,12$$

We consider quarterly data for the 2022-24 period on top routes representing close to 50 percent of the total traffic. The estimated equation for India to UAE flight routes is:

$$\ln(Fare_{it}) = 6.44 - 0.075 ln(Passengers_{it})$$

The panel regression for India-to-UAE high-density routes shows a fare elasticity of -0.07, lower than the macro-level elasticity of -0.228. This difference reflects the greater demand inelasticity on high-density routes, where fares are less responsive to changes in passenger volumes. These routes already have frequent flights and established demand, making additional traffic growth less likely to drive major fare reductions. Additionally, airlines operating on high-traffic routes often have greater pricing power due to brand loyalty, corporate tie-ups, and network effects, reducing the extent to which fares decrease as passenger volumes rise.
Now, for UAE-to-India flight routes, the estimated equation is:

$$\ln(Fare_{it}) = 5.683 + 0.0004 ln(Passengers_{it})$$

The near-zero (0.0004) and positive elasticity for UAE-to-India high-density routes suggest that fares are virtually unresponsive to changes in passenger volumes, which contrasts with the macro elasticity of -0.057 for UAE-to-India flights. This indicates that even as passenger numbers increase, airlines do not lower fares. The primary reason is the highly inelastic nature of demand on this route. Expatriate workers and family visits predominantly drive UAE-to-India travel, where ticket purchases are dictated by necessity rather than discretionary travel preferences. Unlike business- or tourism-driven routes, price changes have a minimal effect on travel volume, as most passengers must travel regardless of fare fluctuations.

Another factor explaining this near-zero elasticity is the structural constraints and market saturation on high-density routes. Routes such as Dubai-Delhi and Delhi-Abu Dhabi already operate at high load factors, allowing airlines to maintain full capacity without fare adjustments. Even if demand increases, bilateral seat allocation limits restrict airlines from adding capacity, restricting their ability to use price adjustments as a demand-management tool. As a result, fare-setting behaviour on these routes is more influenced by regulatory constraints and airline strategies than pure supply-demand dynamics.

Additionally, competition and network effects differ between the India-UAE and UAE-India segments. India-to-UAE fares are more sensitive to demand due to long-haul passenger spillover and competition from multiple carriers, leading to a stronger price response (-0.228 in the macro model, -0.07 in the panel). In contrast, UAE-to-India routes lack similar competitive pricing incentives because they primarily serve labour repatriation and returning expatriates, who book flights based on necessity rather than price shifts. With limited alternatives and peak-season-driven ticketing behaviour, airlines have little reason to lower fares in response to higher demand.

The seasonal nature of travel on UAE-to-India routes further supports this explanation. While the macro model (-0.057) suggests some elasticity by capturing broader market trends, the panel model isolates the highest-traffic routes, where fare rigidity is most pronounced. Seasonal peaks, such as holiday travel and mass worker rotations, create strong cyclical demand, allowing airlines to maintain stable pricing even when demand surges. Given these factors, liberalising air service agreements or expanding seat allocations would likely be necessary to create real pricing flexibility, as increased passenger volume alone does not drive fare reductions in this segment.

Part 2: Estimation of Route-Specific Elasticities

Estimating route-specific fare elasticities allows for a more granular understanding of how individual routes respond to passenger volume changes, rather than relying on a single, aggregated elasticity. This approach is particularly relevant in the India-UAE air travel market, where each route operates under distinct competitive, regulatory, and demand-side conditions. While macro and panel models offer average elasticities, they assume homogeneous behaviour across routes, potentially overlooking route-specific variations due to differences in market structure, airport constraints, and seasonal fluctuations. Route-level elasticities help identify which routes are most responsive to increased demand and which remain largely unaffected by passenger volume fluctuations.

This model is built on a few key assumptions:

- Fixed Route Characteristics: Each route has unique constraints, such as bilateral seat caps, airline dominance,

or airport congestion, which do not change over short periods.

- Consistent Demand Patterns: Passenger behaviour is assumed to be relatively stable within each route, meaning seasonal trends and travel preferences remain predictable.

- Limited Cross-Route Substitution: Travellers on a particular route are unlikely to switch to alternative destinations, even if fares change, ensuring that elasticity estimates reflect real price responsiveness rather than shifts in passenger preferences.
  Market-Driven Pricing: Airlines are assumed to adjust fares based on market demand and competition rather than arbitrary pricing mechanisms.

The model is specified as:

$$\ln(Fare_{it}) = \alpha + \beta ln(Passengers_{it}) + \sum \gamma_i . C(Route_i) + \sum \delta_i ln(Passengers_{it}) . C(Route_i) + \varepsilon_{it}; i = 1,..,13; \quad t = 1,..,12$$

where C(Route) is the route-specific dummy variable.

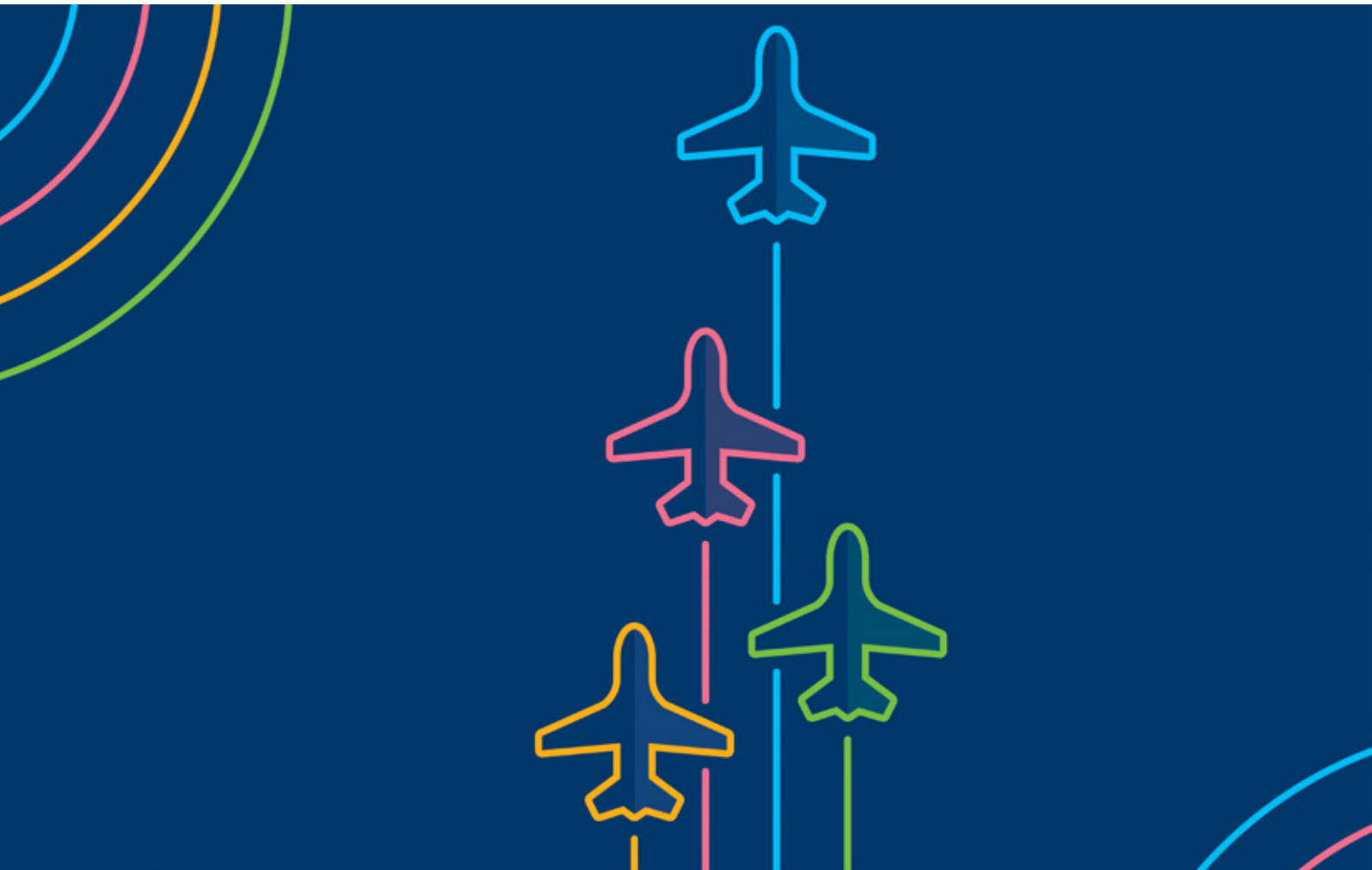
The route-specific demand elasticities are given below:

Route	Route ID	India to UAE	UAE to India
Dubai-Mumbai	1	0.076	0.045
Dubai-Delhi	2	0.129	0.135
Dubai-Cochin	3	-0.201	0.195
Dubai-Kozhikode	4	0.225	0.170
Dubai-Chennai	5	0.001	0.144
Dubai-Hyderabad	6	-0.086	0.266
Dubai-Bengaluru	7	-0.131	-0.031
Abu Dhabi-Mumbai	8	-0.343	-0.042
Abu Dhabi-Delhi	9	0.413	-0.311
Dubai-Ahmedabad	10	-0.078	0.032
Dubai-Trivandrum	11	-0.100	0.216
Dubai-Lucknow	12	-0.038	-0.604
Dubai-Kolkata	13	-0.331	-0.243

The presence of both positive and negative elasticities across different routes highlights the heterogeneous nature of airfare pricing dynamics. Negative elasticities indicate that higher passenger volumes lead to lower fares, suggesting routes with strong competition or economies of scale that allow airlines to pass cost savings on to consumers. Notably, the Lucknow-Dubai (-0.604) and Abu Dhabi-Delhi (-0.311) routes exhibit highly negative elasticities, indicating that passenger volume growth leads to fare declines. These routes should be prioritised for expanded frequencies and deregulation, as greater competition can lower fares.

Routes with positive fare elasticity indicate that as passenger volume increases, fares tend to rise rather than fall. This suggests capacity constraints, demand-driven pricing, or monopolistic market structures. The Dubai-Kozhikode and Delhi-Abu Dhabi routes show strong positive elasticities, meaning demand exceeds available capacity, leading to fare hikes instead of reductions. These routes urgently require capacity expansion, regulatory adjustments, and the possible entry of new carriers to enhance competition and prevent fare inflation.

Some routes show elasticities close to zero, suggesting that passenger volume fluctuations have little impact on fares. These routes are generally mature and stable markets where airlines have established optimised pricing models.



As a result, these routes are unlikely to experience price changes with volume increases. Policy changes, like gradual seat allocation adjustments, could be tested on these routes without causing major market distortions.

Policy Recommendations Based on Route-Specific Elasticities

Using the route-specific elasticity framework, policymakers and airlines can develop targeted strategies for expanding capacity, adjusting regulatory limits, and enhancing market efficiency.

1. Expand Capacity on Highly Price-Responsive Routes (-0.1 and below)

- Dubai-Kolkata, Dubai-Bengaluru, and Dubai-Lucknow should be prioritised for additional seat allocations.

- Increased frequencies and new airline entrants could drive fare reductions, improving affordability.

2 Regulatory Reform for Supply-Constrained Routes (Positive Elasticity)

- Dubai-Kozhikode, Dubai-Delhi, and Delhi-Abu Dhabi require revisions to bilateral seat caps to prevent demand-driven fare hikes.

- Allowing low-cost carriers (LCCs) to enter these routes could help break pricing monopolies.

3. Monitor Stable Markets (Near-Zero Elasticity)

- Chennai-Dubai, Dubai-Mumbai, and Ahmedabad-Dubai do not require immediate intervention but should be monitored for emerging capacity constraints.

4. Bilateral Air Service Liberalisation

- UAE-India negotiations should focus on expanding seat capacity for routes with high positive elasticity, where passenger growth is driving up fares instead of lowering them.

- Implementing Open Skies agreements on select routes (starting with highly elastic markets) can create more dynamic pricing and greater passenger benefits.


TOKYO
5
PARIS
8
SEOUL
201
TOKYO
61
SANTIAG
7811
SINGAPO
7205
TEL AVI
6
FRANKFU
7320
DUBAI
216
PAPEETE
407

IV.

Policy Recommendations

The UAE and India share a deep-rooted economic and strategic partnership, with air connectivity serving as an enabler of trade, investment, and people-to-people ties. Given the high volume of travel between the two countries—driven by business exchanges, tourism, and a 3.5 million-strong Indian diaspora in the UAE[70]—the expansion of air services is not only an economic imperative but also a strategic necessity. By enhancing bilateral aviation cooperation, the UAE and India can unlock new growth opportunities, improve connectivity, and reinforce their partnership in line with their broader economic and geopolitical goals.

However, any expansion must carefully consider the financial health of Indian airlines, their fleet capabilities, and the impact of increased UAE airline capacity on India's long-haul aviation market. A balanced approach is necessary to ensure mutual benefits without disproportionately disadvantaging Indian carriers.

Strengthening Bilateral Aviation Agreements for Enhanced Market Access

Given that UAE carriers have reached full capacity under existing arrangements and Indian carriers are also operating at their limits in all cities of the UAE except Abu Dhabi, there is an urgent need to renegotiate and expand flight entitlements. The current bilateral agreement and MOUs should be updated to increase flight frequencies, add new routes, and allow greater flexibility in seat capacity. For instance, the agreement should incorporate dynamic seat allocation mechanisms, reviewed annually based on actual demand rather than fixed quotas.

A phased liberalisation approach, as suggested by the model, would allow sustainable growth while balancing market interests.

The UAE and India should also explore the phased liberalisation of Open Skies[c] provisions to boost trade, particularly in pharmaceuticals, perishables, and high-value exports that require seamless air logistics. Furthermore, establishing a high-level UAE-India Joint Aviation Committee (JAC) would ensure ongoing cooperation on market access, regulatory harmonisation, and strategic planning for future growth. This committee can also oversee the implementation of a Bilateral Aviation Development Plan, aligning with the CEPA to enhance economic integration.

Establishing UAE-India Aviation Hubs for Global Connectivity

The UAE and India must collaborate to strengthen aviation hubs in both countries and develop complementary strategies rather than competing for transit traffic. While Dubai and Abu Dhabi are established global transit hubs, India can position Delhi, Mumbai, and Bengaluru as secondary hubs feeding into UAE airports, reducing passenger loss to indirect routes via third countries. This can be promoted through three unique mechanisms. This is particularly important because UAE airlines, through their hub-and-spoke model, can divert Indian long-haul traffic to Europe

[c] An Open Skies agreement is a bilateral or multilateral aviation pact that removes restrictions on international air travel between signatory countries. It allows airlines to freely determine routes, capacity, pricing, and frequencies without government interference, fostering competition, optimising operations, improving connectivity, lowering airfares—resulting in consumer benefits and economic growth.

and North America, limiting Indian carriers' expansion. Protecting and strengthening India's own hub networks is critical for long-term competitiveness.

First, encouraging codeshare and interline agreements between Indian and UAE airlines will ensure seamless connectivity for passengers, reduce transit times, and enhance travel convenience, particularly on long-haul routes to North America and Europe via UAE airports. Second, mutual infrastructure investment should be enhanced. With its vast experience in airport infrastructure development and management, the UAE can support Indian airport expansion projects through public-private partnerships (PPPs). The Adani Group's partnership with Abu Dhabi Airports for Mumbai Airport management is a model that can be replicated at other key hubs. Finally, hub synchronisation strategies should be jointly developed to optimise layover times and passenger flows, boosting the competitiveness of Indian airports while reinforcing the UAE's role as a global aviation gateway.

Expanding Flight Operations Beyond Metro Cities for Greater Inclusion

Currently, UAE-India flight operations are concentrated in Delhi, Mumbai, Chennai, Bengaluru, and Hyderabad, leaving significant demand in tier-2 and tier-3 cities untapped. Expanding air services beyond metro hubs will strengthen economic connectivity, reduce congestion, and offer more direct travel options for Indian workers, business travellers, and tourists. However, many tier-2 and tier-3 airports in India lack the necessary infrastructure to handle increased UAE flights, especially widebody aircraft. Upgrading these airports and ensuring better slot management at major hubs like Delhi, Mumbai, and Bengaluru is crucial before large-scale expansions.

To support balanced regional development and reduce travel costs for passengers, new routes from emerging cities like Jaipur, Lucknow, Coimbatore, Vishakapatnam, Patna, Bhubaneswar, and Amritsar—home to large expatriate populations and growing business ties with UAE—are crucial. The UAE and India should also consider an arrangement similar to the ASEAN-India ASA, allowing open skies for secondary aviation hubs in smaller Indian cities. This would enable UAE carriers to service growing tier-2 and tier-3 markets in India while benefiting smaller Indian carriers through interline and codeshare agreements, opportunities which may naturally emerge as a result of expanded traffic rights. Such an approach could integrate with India's UDAN scheme, launched in 2016, enhancing last-mile connectivity and promoting regional hubs.

While Dubai and Abu Dhabi remain key entry points, Indian carriers should explore Sharjah, Ras Al Khaimah, and Al Ain airports as alternative entry hubs, offering better slot availability and cost advantages. However, this would necessitate expansion of the seat entitlement specified under the existing MoUs. While Sharjah is already operating at capacity specified under the bilateral, Indian carriers are being

provided double the capacity they are actually entitled to in Ras Al Khaimah. Moreover, the Indian government should offer temporary fee reductions, airport tax waivers, and operational incentives to airlines operating direct UAE flights from non-metro airports. This will encourage new route development and enhance accessibility for underserved regions.

Strengthening Aviation Cooperation through Knowledge Exchange and Best Practices

India can learn from the UAE's success in aviation infrastructure, operational efficiency, and regulatory best practices to strengthen its own aviation sector. Enhanced collaboration between India's Directorate General of Civil Aviation (DGCA) and UAE's General Civil Aviation Authority (GCAA) can drive mutual progress in several areas. The UAE and India should establish a Bilateral Aviation Training Programme where Indian aviation professionals—including pilots, air traffic controllers, and cabin crew—receive advanced training in UAE-based aviation academies. The training scope should also expand to cover all aviation professionals—from ground handling to safety management.

India should adopt the UAE's advanced air traffic management systems, particularly AI-driven flight scheduling and congestion management, to improve efficiency at busy airports. Sustainability must also be addressed. The UAE's Green Aviation Strategy, focusing on carbon-neutral airport operations and sustainable aviation fuels (SAF), should be incorporated into India's aviation sustainability framework. Joint research projects on SAF and energy-efficient airport designs can support long-term environmental goals.

Expanding Air Services to Boost Tourism and Business Travel

Tourism and business travel between the UAE and India are critical economic drivers. In 2022, over six million Indians travelled to the UAE,[71] yet air connectivity remains concentrated in select metro cities. Expanding air services, particularly in the luxury and business segments, will boost tourism revenues and foreign exchange earnings. This can be initiated by introducing multiple-entry visas, fast-track immigration lanes, and digital travel

authorisations for UAE travellers, enhancing travel convenience. The UAE's success in e-visa and smart immigration technology could serve as a model for India.

Specialised tourism initiatives, including medical tourism, cultural tourism, and luxury tourism, should be prioritised, with targeted promotional campaigns in Dubai, Abu Dhabi, and Sharjah to attract high-spending travellers.

Airlines should have the ability to increase capacity during peak travel seasons, such as Diwali, Eid, and winter vacation periods, to accommodate higher demand. This requires UAE-India collaboration in dynamic flight scheduling and revenue optimisation strategies.

Thus, the expansion of UAE-India air services must be driven by collaboration, strategic investments, and policy liberalisation to unlock its full economic and strategic potential. By renegotiating bilateral agreements, establishing aviation hubs, expanding regional connectivity, sharing expertise, and boosting tourism and business travel, UAE-India can create a dynamic, future-ready aviation partnership. A forward-looking approach to air service expansion will shape the future of India-UAE ties. By embracing mutual cooperation and leveraging individual strengths, the UAE and India can build one of the world's most efficient, interconnected, and thriving aviation networks.

Transition Through Open Skies to Combined Sky Through Improved Regulatory Frameworks

To enhance air connectivity and economic cooperation between the UAE and India, it is recommended to transition with a phased liberalisation to an Open Skies agreement through to a more integrated Combined Sky policy. This shift would involve harmonising air traffic management systems, regulatory frameworks, and operational procedures between the two nations, drawing inspiration from initiatives like the Single European Sky.

Implementing a Combined Sky policy would reduce airspace fragmentation, improving efficiency, safety, and optimised flight operations. This collaborative approach would facilitate seamless air travel, promote tourism, and strengthen trade relations.

To achieve this, both countries should establish a joint regulatory body to oversee the integration process, ensuring uniform adoption of air navigation services, safety standards, and technological advancements. Such a progressive regulatory architecture would not only address the growing mobility demands on both sides but also position the UAE-India corridor as a model for regional airspace cooperation.

Establish a Virtual Aviation Corridor to Enhance Bilateral Air Services

Building upon the successful implementation of the UAE-India Virtual Trade Corridor (VTC), which has streamlined logistics and reduced administrative processes, it is recommended to develop a Virtual Aviation Corridor between the UAE and India. This initiative would digitise and harmonise regulatory frameworks, facilitating seamless coordination in areas such as slot allocation, flight scheduling, and customs procedures. By adopting this progressive regulatory architecture, both nations can enhance operational efficiency, reduce turnaround times, and better meet the growing mobility demands on both sides.

Grant Quasi-National Carrier Status to UAE Airlines to Bridge Mobility Gaps

To address the imbalance in air service agreements and fill the existing mobility demand gaps, it is proposed that UAE airlines be accorded quasi-national carrier status within India's aviation policy framework. This designation would allow UAE carriers to operate on underserved routes and increase capacity where Indian airlines face limitations due to fleet size or financial constraints. Such a policy shift would not only enhance connectivity but also stimulate economic growth through increased tourism and trade. However, this approach should be implemented with reciprocal agreements to ensure mutual benefits and support the development of India's aviation infrastructure.

V.

Scope for Future Research

While this study provides a comprehensive econometric analysis of UAE-India air travel liberalisation, some constraints remain. First, it does not fully account for the financial health and scalability of Indian airlines amid increased competition from UAE carriers. The assumption that expanded capacity leads to greater economic benefits overlooks the profitability pressures faced by Indian carriers due to competitive pricing and the dominance of UAE's hub-and-spoke model. Additionally, the study does not integrate airline financial data, which would have provided deeper insights into the sustainability of liberalisation for Indian carriers.

Second, the impact of fifth freedom rights and long-haul traffic diversion could not be extensively modelled. While the study acknowledges that increased UAE airline capacity could divert Indian-origin long-haul passengers via Dubai and Abu Dhabi, it lacks a detailed scenario analysis on how this affects India's long-haul expansion. Similarly, infrastructure constraints—especially at major Indian airports and tier-2/tier-3 cities—have not been fully incorporated. The study assumes that expanded bilateral agreements will be supported by adequate airport capacity, without analysing slot congestion or required upgrades for handling additional flights.

Finally, alternative data sources such as Cirium could not be leveraged, limiting the granularity of insights into airline-specific market share and fare structures. While the study relies on OAG data for empirical robustness, real-time traffic flow and profitability data could refine demand elasticity estimates. This limitation also affects the ability to model airline capacity expansion timelines, as Indian carriers face bureaucratic hurdles and aircraft order backlogs that hinder rapid international growth.

To address these gaps, future research will focus on developing a financial sustainability model for Indian airlines under various liberalisation scenarios. A separate study will also examine the timeline for India's hub development strategy, evaluating whether key airports such as Delhi, Mumbai, and Bengaluru can support expanded international operations.

A follow-up study will incorporate airline profitability data and long-haul growth projections, modelling the impact of increased UAE flights on India's direct connectivity to Europe and North America. This will help policymakers assess whether limiting UAE carriers' access in the short term could support India's long-haul ambitions. An airport feasibility assessment will analyse infrastructure constraints, slot availability, and investment requirements at India's major and emerging international airports. The study will also undertake sectoral analysis, delving into employment opportunities and tourism impact. These enhancements will provide a holistic aviation policy framework that balances liberalisation benefits with the long-term competitiveness of Indian airlines.

Indian carriers should explore other UAE airports, such as Sharjah, as alternative entry hubs.

VI.

Conclusion

India and the UAE share a long-standing economic and strategic partnership, with strong trade relations and investment flows; the UAE is also home to a large Indian expatriate community. The CEPA and the Bilateral Investment Treaty accentuate the growing economic interdependence between the nations. With both countries' carriers operating near full capacity under the current ASA and aviation's role in sustaining and expanding the UAE-India relationship, a structured, phased expansion of flight capacity has become crucial to meet the economic ambitions of both nations.

Econometric analysis reveals that India-to-UAE airfares are more responsive to passenger volume changes (-0.228 elasticity) than UAE-to-India routes (-0.057 elasticity), driven by long-haul traffic dynamics and competitive pricing pressures. However, high-density routes exhibit lower elasticity (-0.07 for India-UAE; near-zero for UAE-India), indicating rigid pricing where demand is well established. Furthermore, a doubling of capacity can generate benefits to the tune of US$1.05 billion for Indian travellers. Even a 20-percent liberalisation, with an incremental 5-percent annual expansion, in air traffic over the next four years could generate consumer surplus gains with an NFV of US$152 million. These findings advocate for a gradual revision of the bilateral ASA to accommodate growing market demand and enhance affordability.

The route-level elasticity analysis underscores the need for differentiated policy approaches. Price-sensitive routes such as Kolkata-Dubai and Mumbai-Abu Dhabi show strong price responsiveness and are ideal for immediate seat expansions to lower fares. Conversely, capacity-constrained routes like Dubai-Kozhikode and Delhi-Abu Dhabi require regulatory adjustments to prevent fare hikes due to demand outpacing supply.

Meanwhile, mature routes like Chennai-Dubai and Dubai-Ahmedabad show minimal fare fluctuations, suggesting they can be monitored rather than immediately deregulated. A phased combined sky policy, prioritising competitive routes, will maximise consumer benefits, enhance economic linkages, and strengthen bilateral aviation ties between the UAE and India.

Renegotiating the UAE-India ASA to reflect market demand, expanding seat capacity in phases, introducing dynamic allocation mechanisms, and revising the bilateral framework are essential for maximising benefits. Strengthening long-haul connectivity through aviation hubs in Delhi, Mumbai, and Bengaluru with UAE-backed infrastructure investments and coordinated flight schedules can further enhance connectivity. Expanding regional aviation services from tier-2 and tier-3 cities will ease congestion and improve accessibility, while bilateral aviation cooperation in training and regulatory best practices will boost operational efficiency.

Collaborating on sustainable fuels and carbon-neutral airport operations will promote environmentally responsible growth. Economic benefits from increased passenger mobility can be maximised in business and tourism travel through enhanced visa regulations, expedited immigration, and dynamic flight scheduling. By implementing these strategies,the UAE and India can improve bilateral air connectivity while ensuring long-term operational and economic efficiency. A structured, liberalised, and forward-looking expansion of air services will stimulate cross-border trade, strengthen economic resilience, and build a more seamless, competitive, and efficient air transport ecosystem.

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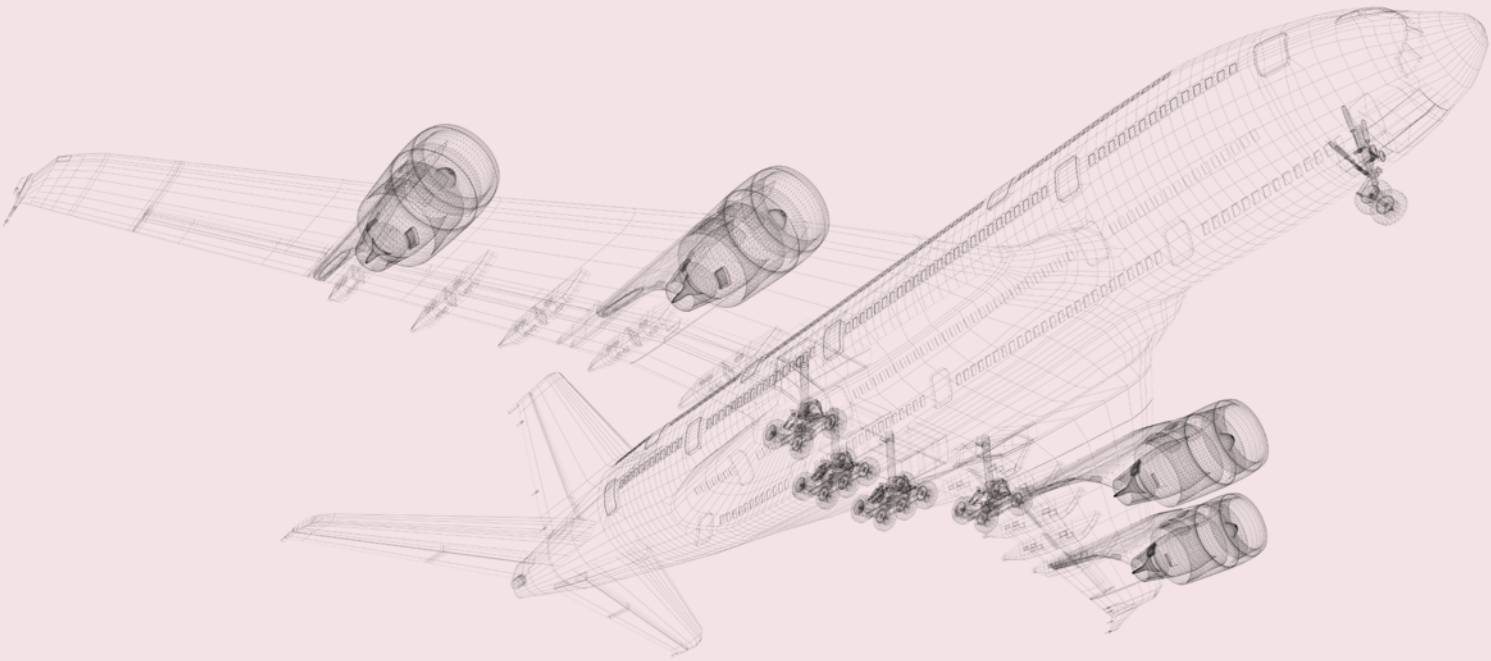

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