Aviation Industry in Emerging Regions

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Research- Executive Brief

Emerging Markets Region- China & East Asia (ICG) - Macro **Monday, April 2, 2018**

Written by
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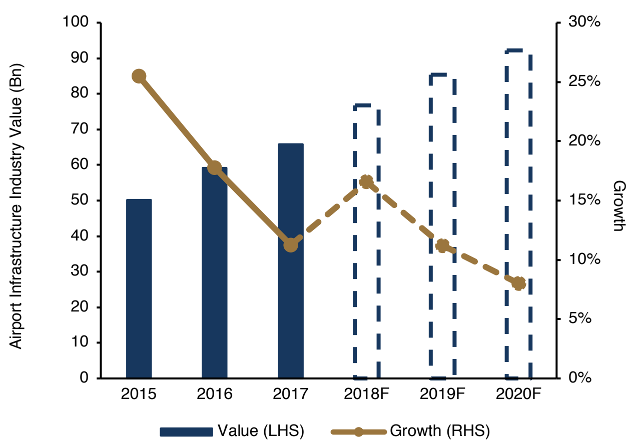
China's Civil Aviation Industry:
Fostering Mobility & Connectivity through Air Travel`

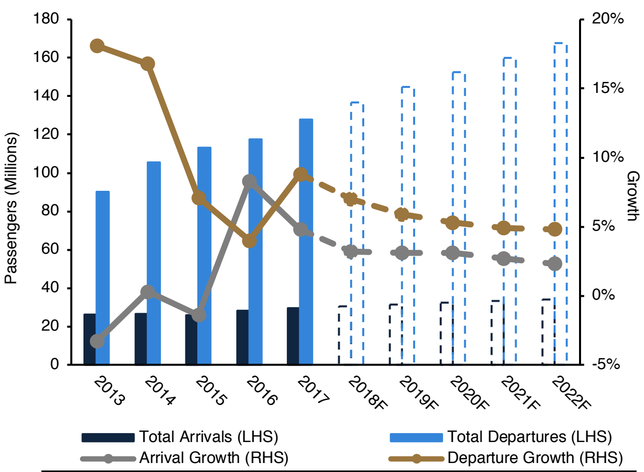
According to the International Air Transport Association (IATA), China will soon overtake the US as the world's largest aviation market by FY22, owing to massive government investments into infrastructure, favourable macro-policies supporting tourism and domestic industry growth. Regarding economic health, real GDP growth amounted to 6.9% in FY17, improving from 6.7% in FY16. However, the International Monetary Fund (IMF) forecasts GDP growth to slow to 6.6% in FY18, implying expectations of a worsening economic state. This is attributed to a less accommodative monetary policy with an unchanged central bank lending rate of 4.53% and sustained deleveraging efforts amidst global trade risks from worsening geopolitical tensions. Beijing is set to continue its focus on transport infrastructure development, as part of its Belt and Road Initiative (BRI). While BRI's prime focus is on land and sea transport, aviation is beginning to enter into the mix as it can increase penetration into markets covered by BRI.

Figure 1: Airport Infrastructure Industry Value (2015-2020F)



Source: BMI Research, 2017

Figure 2: Total Arrivals and Total Departures (2013-2022F)



Source: BMI Research, 2017

Unfaltering Government Infrastructure Investments

On the backdrop of China's most ambitious foreign policy efforts, China's transport infrastructure investments have been accelerating steadily, with fixed asset investment increasing 13.8% YoY in FY16. Despite aggressive investment focus on High-Speed Railway (HSR), airports infrastructure investments are expected to report the highest value growth. The government aims to build 136 new airports by FY25, primarily in central and western regions. Investments in airports are expected to increase with a CAGR of 10% between FY16-FY20 (Figure 1). The need for new airport infrastructure is best exemplified upon reviewing the current operational efficiencies of major airports. China's largest airport, Beijing Capital International Airport, is bogged down due to massive traffic and congestion. Its slot capacity utilisation rate of 98% is higher than its slot capacity of 80%. At the same time, the airport handles 94mn passengers and 103 flights per hour in FY16, exceeding handling capacity of 82mn passengers and 88 flights per hour respectively. Other major airports also face similar constraints. As an indicator of passenger traffic, Revenue Passenger Kilometres growth was 10.1% YoY in FY17. Surging demand coupled with the inability of major airports to meet travel demand might potentially restrict passenger traffic growth and increase the need for expansion & upgrades. Airport capacity bottlenecks may soon result in capacity upgrades emerging as a determinant of traffic growth.

In its ambitious airport expansion plans, Beijing is encouraging greater private sector participation to reduce reliance on debt-financing by SOEs and increase operational efficiency. Recently, the Ministry of Trade relaxed rules allowing private entities to increase their stake in airports to up to 25%. However, current private involvement is limited to the financing of assets, with majority stake still owned by SOEs. Given their poor track records, the underlying concern of SOEs' ability to complete projects and substantiate projected revenue streams will persist.

Growth in Demand for Air Travel

A key reason for excessive capacity utilization in airports is the explosive demand for air travel and outbound tourism. Much of this growth is underpinned by China's rising disposable income, with GNI per capita increasing at a CAGR of 7.72% between FY12-FY16, reaching RMB 53,600 in FY16. Increasing overall income levels nation-wide has been raising individual propensity for consumption. Total arrivals have grown at a CAGR of 2.93% while total departures have improved significantly at a CAGR of 9.06% between FY13-FY17, with more than 50% of passengers travelling by air (Figure 2). In China, outbound travel is fueled by Chinese consumers' desire to shop and explore unventured cities. Total overseas spend on goods amounted to USD 115.6 billion with a 5% YoY growth in FY17.

Amidst re-shoring of mainland spending on goods, travel trends reveal that Chinese travellers are increasingly prioritising travel to less shopping-oriented locations, implying a shift in spending trends. Nevertheless, air travel demand shows no signs of abating in upcoming years. Apart from internal stimulus supplementing stable growth in departures, external stimuli like favourable visa policies offered by countries like Hong Kong, Indonesia, and Thailand have made them top destinations for Chinese tourists. Relaxation of visa policies in more countries like Serbia, Ukraine and Europe's announcement of the EU-China Tourism Year 2018 in January, aimed at enhancing mutual visitors' flows, will bolster interest in these locations and supplement more outbound air travels.

Tourism Investments to Increase Inbound Arrivals

While outbound departures have shown significant improvements in the last 5 years, inbound arrivals have been lagging behind, maintaining less than 1% growth YoY before FY15 and only recently recovering to 4.8% in FY17 (Figure 2). As of late, it has come under government scrutiny as a key area of focus in the 13th Five Year Plan. Government efforts in issuing relevant regulations and investment in the domestic tourism sector have contributed to sector growth, generating traffic that exceeded 5.1bn in FY17 and total revenue of USD 795 bn. Favourable regulations include no visa requirements for trips up to 3 days and tax refunds on shopping purchases. Part of tourism investments come in the form of marketing efforts like the "Beautiful China" initiative that aims to generate awareness for Chinese culture and travel service offerings and "Panda Tours for the World" events to promote well-known attractions.

Tourism efforts are also further facilitated by BRI efforts which enhances inbound tourism with a focus on cross-border route network expansion and developing international relationships with neighbouring countries. For example, under BRI, China National Tourism Administration actively marketed "Beautiful China" to its partnering countries and engaged in EU-China Year of Tourism efforts. Such BRI partnerships aim to reel in foreign visitors. Tourism efforts also extend to boosting domestic tourism. Rapid urbanisation and government investment in improving current travel products and services which are centred on placed of interest like China's historical sites have enhanced local travels. Prospects-wise, these efforts will help China to position itself as an emerging hot spot for tourism, internally and externally.

Positive Outlook on Oil Prices to Threaten Growth

Volatility in the oil markets has long impacted the profitability of airline companies. The industry practice of hedging oil prices have historically helped to mitigate some, but not all, of the market risks involved. The likelihood of unexpected oil price surges and currency devaluations do still pose unavoidable risks to the profitability of major carriers.[1] In the case of oil, fuel costs typically account for 30% of total airline costs.[2] In the last year, oil prices have sustained a 55% increase from $44.74/bbl in June 2017 to $69.38/bbl in April 2018.[3] Positive outlook on oil prices in FY18 implies higher fuel costs and the need for Chinese airline companies implement sufficient hedging programs. Higher expected fuel input costs would place upward pressure on ticket fares, potentially impairing industry growth and profitability as it may push consumers to alternative and cheaper forms of transport like HSR.

Overall airline industry outlook appears to be mixed in the short-term. Despite robust demand growth and efforts to boost tourism that relay a positive outlook, airport capacity constraints and sizeable exposure to oil markets may hamper short-to-medium term industry growth. However, completion of infrastructure will facilitate connectivity and ameliorate heavy demand to alleviate this outlook.

Headlines

- BRI focus to extend to civil aviation as a means to increase penetration into markets covered by BRI
- Amongst transport modes, airports are expected to continue to report the strongest growth for infrastructure investments
- Major airports face capacity constraints due to explosive demand growth
- Airport capacity slated to become the bottleneck whereby capacity upgrades might emerge as a determinant of traffic growth
- Rising income levels raises individual propensity for consumption
- Government efforts in the domestic tourism sector has contributed to generating a traffic that exceeded 5.1 bn in FY17
- Positive outlook on oil prices in FY18 implies higher fuel costs and the need for increased hedging investments

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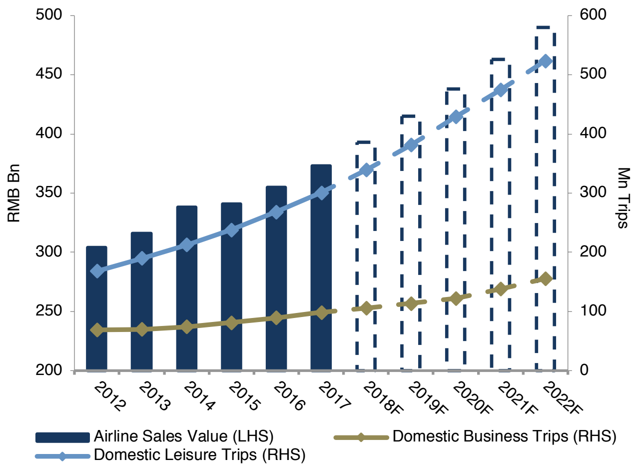
Research- Executive Brief

Emerging Markets Region- China & East Asia (ICG) - Industry **Tuesday, April 3, 2018**

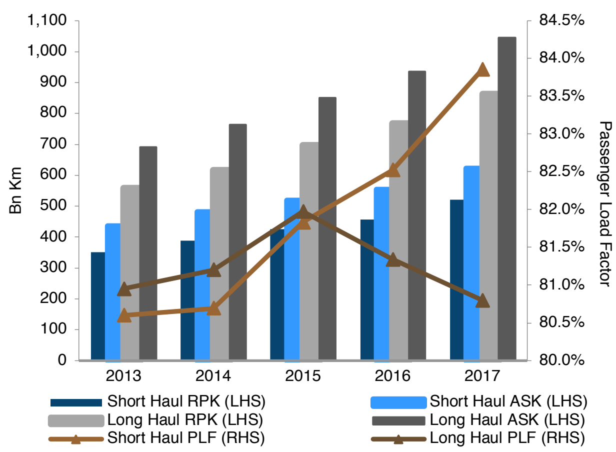
Written by
Ron Mak Director

Figure 1: Airline Sales Value and Number of Trips by Air



Source: BMI Research, 2018

Figure 2: Regional Short Haul and Long Haul RPK, ASK & PLF



Source: Bloomberg, 2018

Headlines

- Forecasted CAGR of 5.6% in airline sales value on the back of increasing RPK and both business and leisure trips
- Big 3 airlines China Southern, China Eastern and Air China hold two-thirds of domestic market share
- Regulatory relaxations over price ceilings on 306 routes will lead to fare hikes that benefit operators' tackle declining passenger yields
- Foreign pilots an increasingly attractive option to mitigate local manpower shortages
- International flight demand from non Tier-1 cities might still be weak as PLF decreased form 82% to 80.8% from FY15-FY17
- Huge subsidies amounting to RMB 8.6 bn sustains these routes
- LCCs a potent threat to legacy carriers due to their cheaper product offerings
- LCCs to benefit from the opening of Western and Central China via their point-to-point operating model

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China's Civil Aviation Industry:
Triumph in the Skies Contingent on Supply

With a forecasted CAGR of 5.6% (Figure 1), China's airline passenger industry is set to surpass the USA as the world's largest aviation market. Revenue Passenger per km (RPK) for both short and long-haul flights have risen from 352 and 559 million (mn) km to 521 and 863mn km respectively from FY13 to FY17 (Figure 2). This traffic growth will be bolstered by the continual increase in both domestic business and leisure trips by air, with estimated CAGRs of 9.6% and 11.7% respectively (Figure 1). Strong demand stemming from tourism and increased disposable income have been the twin growth drivers for air travel.

Price and service-type segments the airline sector into 2 main categories: Low-cost carriers (LCCs) and legacy carriers. The former focuses on short-haul flights with cheap price points, while the latter covers all types of air travel with onboard service. China's domestic market is dominated by the "Big 3" SOE legacy carriers: China Southern, China Eastern and Air China, who together owns 64.3% domestic market share by value.

Yes to Higher Fares

Traditionally, the homogeneity of air travel and the presence of many players dent profits. Passenger yield, a measure of profitability, fell by 15% on average from FY14-FY16 for China's 6 most prominent airlines due to intense competition[4]. Regulatory price ceilings set by the Civil Aviation Administration of China (CAAC) further suppressed profits.

Hence, the CAAC's recent decision to boost efficiency and service standards by liberalising fare prices on domestic routes served by more than 5 airlines will benefit operators[5]. Companies now have increased pricing freedom over 306 routes compared to 31 previously. Allowing firms to impose fare hikes will incentivise companies to increase the quantity of flight services supplied. This can potentially reverse the trend of decreasing profitability as well as alleviate capacity shortages to meet the growing air passenger transport demand. Letting market-forces play a more significant role in influencing fares has been met with positive market sentiment towards the future earnings of these airline companies, that led to a 10% increase in stock prices of the Big 3 airlines[6].

Pilot Paucity

Pilot shortages is a bottleneck which has led to the influx of foreign hires, making up 2% of China's pilots. Local flying academies generate on average 2000 new pilots per annum, an output grossly insufficient to support the underestimated required headcount of 3000 based on China's current growth trajectory[7]. Combined with an unrevised pilot retirement age of 60, a medium-term pilot deficit is predicted to occur[8]. In light of impending scarcity and governmental relaxations on the employment of foreign pilots, desperate firms are willing to fork out higher wages for foreign manpower that can be 20% more costly than their local counterparts.

Excluding higher overhead costs, foreign pilots are attractive as they already possess the necessary technical skills and only require at most a lead time of 1 year for approval. In contrast, firms need to wait 8-10 years for Chinese pilots to complete their training. These employees, typically from US or Brazil, also sign short-term contracts of 1-5 years, compared to the lifetime contracts of their Chinese peers.[9] This enables operators to attract foreign pilots due to low switching costs once their contract ends, to react flexibly to market shocks. With challenges in meeting demand and a lackluster domestic pilot base, costlier foreign pilots are vital to operations.

Long-haul Reliance on Subsidies

Government expenditure has spiked in lower-tiered cities to promote long-haul international flights between foreign locations such as Paris. At least RMB 8.6bn in subsidies were spent by local governments in FY16 to attract carriers to establish these flight routes, which is almost equivalent to half of the net profits of China's 4 largest airlines.[10] The number of international air routes has risen from 660 to 739 from FY15-FY16, a 12% YoY increase.

However, there are concerns over the sustainability of such fiscal measures. Without subsidies, many of these routes are unprofitable. Although Available Seat Km (ASK) for long-haul flights has seen a CAGR of 10.9% from FY15-FY17, Passenger Load Factor (PLF) has decreased from 82% to 80.8% in the same period (Figure 2). Airline efficiency in filling seats have taken a hit despite an increase in carrying capacity, signaling that the demand for international flights might not be as strong as expected. This can be attributed to inflated demand from lower-tiered cities. In addition, the exit of British Airways operating the route from Heathrow to Chengdu, China's 4th busiest airport, shows that even in Tier 2 cities, international flights might lack the necessary critical mass.[11] This raises concerns that the growth of international routes is artificial. Hence, long-haul flights outside Tier 1 cities still possess insufficient demand to break-even; this segment is susceptible to headwinds should subsidies cease.

LCCs v Big 3

The Big 3 are facing increased pressure from LCCs. By making ancillary services optional, LCCs can compete with established behemoths on price. For instance, the average operating expense for budget carrier Spring Airlines was 35% lower than the Big 3 from FY11-FY15, enabling them to cope with the decline in passenger yields in precedent years.[12] LCCs are set to reap the benefits from the opening of landlocked inner regions in Central and Western China. Together, they account for 39.6% of passenger traffic as compared to 54.2% for Eastern China where Tier 1 cities are situated. Supported by an investment of RMB 460bn, 50 new civil airports are in the pipeline. Furthermore, air travel to these domestic destinations has seen significant growth. Not only has short-haul RPK experienced a CAGR of 10.3%, but PLF has also increased from 80.6% to 83.9% from FY13-FY17 (Figure 2). Robust double-digit growth in passenger traffic coupled with increased seat-filling and revenue generation efficiencies make the short-haul domestic market lucrative.

LCCs are in a position to capitalise on growing local demand due to their point-to-point operation model. It is economically unviable for legacy carriers to fly these inner routes on a regular basis using wide-body jets as the filling of seats might not be maximised. In an industry where the global net profit margin was 5.1% in FY16, low margins make it essential for carriers to maximise seat occupancy. Low ticket prices play greater importance over onboard service due to short flight times, favouring LCCs over legacy carriers. The hub and spoke model used by the latter also limit the number of direct flights to these remote areas, while LCCs can schedule more direct trips via fuel-efficient narrow-body planes like the A320. Their smaller seat capacity of 150 ensures that load factor and profits are maximised to cover fixed costs.

These threats have compelled legacy carriers to adopt a dual-brand strategy by creating their own budget carriers to prevent further market share erosion. These include West Air and China United, subsidiaries of Hainan Airlines and China Eastern respectively.[13] The potency of a low-cost model is forcing legacy carriers to adapt or risk losing their stake in this competitive sector.

Triumph in the Skies

Despite these inherent industry changes and weaknesses over unsustainable international routes from lesser cities, turbulence manifests in the form of demand outpacing supply. China's civil aviation sector is set to soar if it can provide the necessary supply to meet increased traffic. While problems will persist, the growth of the middle class in China suggest strong growth for the industry ahead.

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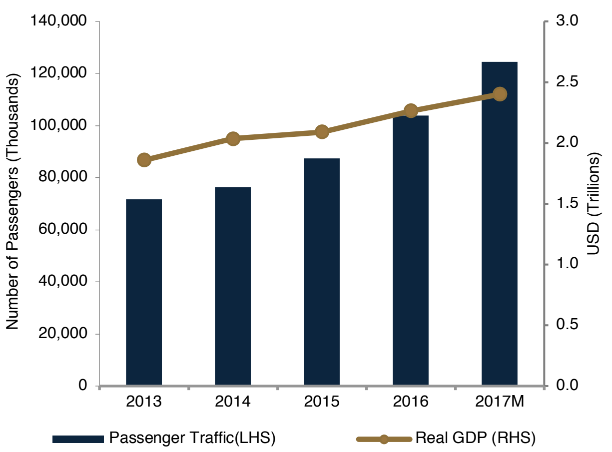
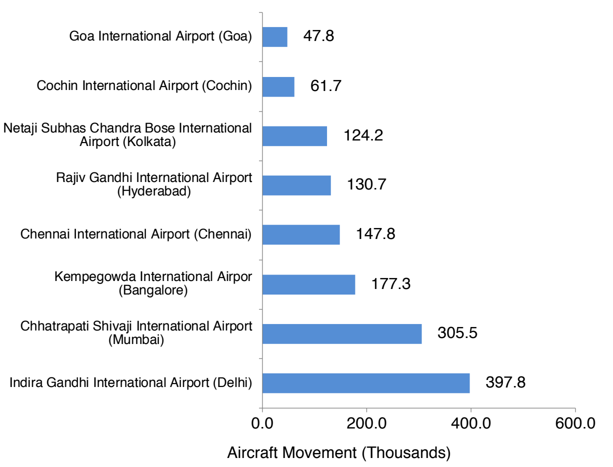
Figure 1: Passenger Air Traffic vs Real GDP (2013-2017)



Source: IMF, Directorate General of Civil Aviation, 2018

Figure 2: Aircraft Movement In Indian Airports (2017)



Source: Directorate General of Civil Aviation, 2017

Headlines

- India is set to become the world's third largest economy by 2027
- International Monetary Fund (IMF) forecasts that the economy will expand by 7.7% in year 2018-2019
- Tourism sector is set to continue to grow with government initiatives
- India's rapid urbanization will see increasing number of locals engage in leisure and business travel, especially from Tier II and Tier III cities
- UDAN has boosted India's regional connectivity, with 109 regional airports being added to the aviation map
- Liberalization of aviation rules has led to increased air passenger volume
- Surge in demand for air travel has brought to light India's infrastructure problems, particularly in airports

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India's Civil Aviation Industry:
Laying the Groundwork for a Smooth Take-off

According to the Centre of Economic and Business Research, India will emerge as the world's third-largest economy by 2027[14]. India's GDP growth of 6.3% in Q317 was an improvement from 5.7% in Q217. As the country recovers from the impact of demonetization and GST reforms, the International Monetary Fund forecasts that the economy will expand 7.7% from FY18-FY19. This positive economic growth draws support from the rise of India's business hubs, steady expansion of private consumption as well as investments following foreign ownership liberalisation in essential industries in line with Prime Minister Modi's vision of a business-friendly nation. These macro trends will have positive trickle-down effects to push the aviation industry into further development.

Increased Air Activity with Tourism and Urbanisation

In FY17, the tourism sector accounted for 6.8% of national GDP, attracting more than 10 million international tourists, an increase from 8.8 million in FY16, while foreign exchange earnings increased by 20.8% YoY to US$27.7 billion[15]. India's Union Budget 2018 announced further measures to help grow the hospitability sector. These include ambitious plans to develop 10 prominent tourist sites into "iconic tourism destinations" by developing infrastructure, skills and technology and attracting private investments[16]. The government also simplified the process of entering India via the introduction of e-visas and expanding visas-on-arrival offerings. Therefore, the demand for outbound flights and domestic air travel is set to increase in tandem with the tourism industry, which is expected to grow at a CAGR of 7.2% per annum from FY17 to FY27.

On the domestic side, India's rapid urbanisation has led to a rise of the upper-middle income group with the spending power to make discretionary purchases and thus engage in air travel services[17], expanding at a healthy rate of 15.6% per annum between FY10 and FY16. A huge proportion of this emerging income group is located in Tier II and III cities, which will account for 45% of India's consumption by FY20. This shows further opportunities for market penetration, as air travel is currently concentrated at 8 major hubs. Many of these locals are putting an increasing value on leisure travel with the means to do so. Hence, tourism and the increasing spending power of locals are set to continue to be major drivers behind air traffic growth in India domestically and internationally.

Regional Connectivity Scheme (RCS)

Ude Desh Ka Aam Nagrik (UDAN) is a government scheme that aims to boost India's regional connectivity[18]. A key goal of this initiative is to develop the regional aviation market by increasing the availability and demand for flights covering distances up to 800km. The main driver for a regional connectivity scheme is to put remote regions and smaller cities, such as Tier II and Tier III cities, on the aviation map, making air travel more affordable and available for the layman. The programme also focuses on the development of new regional airports, with plans to more than double the number of operational airports with regularly scheduled flights by FY19. The Ministry of Civil Aviation (MCA) along with Airports Authority of India (AAI) plans to develop these small airports with frugal facilities and encourage private airlines to bid for routes connecting these small airports with existing larger ones, adding several hundred financially viable regional routes in the aviation space[19]. Moreover, the MCA will cap the price on half the seats by more than half-price to INR2,500 for each hour of scheduled flight time, in accordance with making domestic air travel more affordable. To compensate for revenue loss under the scheme, the government will offer the airlines providing these services Viability-Gap Funding to sustain operations. Following two rounds of bidding for the new regional routes by airlines, a total of 109 regional airports have been newly connected. UDAN also gives new operators a chance to capitalise on the rapid growth in passenger traffic. These bidding rounds have seen new airlines such as Heritage Aviation and Zoom Air winning bids to operate flights. Therefore, the RCS will allow airlines to penetrate previously unreachable markets, make air travel more accessible for the layman and thus boost demand for air transport.

Open Sky Agreements

The National Civil Aviation Policy has eased previous restrictions and rules in the sector. One such initiative from this policy allows the government to enter into more "Open Sky" air services agreements on a reciprocal basis with other countries. Open Sky Agreements are mainly bilateral agreements that liberalise air transport regulations or limits, for example increasing the number of flights between the two countries. By September 2017, India had already signed open sky agreements with Greece, Jamaica, Guyana, Sri Lanka and other countries[20]. Most recently, MCA revised its air services agreement with the Netherlands, which would enable air carriers from both the countries to operate up to 28 flights each week, up from the current weekly limit of 21 flights. Thus, Open Sky Agreements brings about reciprocal obligations to eliminate government interference in commercial airline decisions about routes, capacity, and pricing, giving airlines the ability to provide more affordable, convenient, and efficient air service to consumers, promoting increased travel and facilitating broad economic growth for both countries.

Infrastructure Strains

The robust growth in air traffic has led to major capacity constraints, leading to congestions at major airports and capacity shortages in terms of runway slots, parking bays and terminals. The country's biggest metro airports, which also serve as connecting hubs for air routes, are already operating at more than 80% of capacity, with Delhi and Mumbai at more than 90%. The Centre for Aviation (CAPA) predicts that current airport infrastructure will exceed their maximum structural capacity by FY22. It estimates investments totalling US$45 billion in airports are needed by FY30 to keep up with demand. Therefore, in order to encourage an additional flow of investments for the expansion of aviation infrastructure, the government has begun to form Public-Private Partnerships (PPP) with private operators.

Moreover, in line with the Make In India vision, the government began a major easing of foreign direct investments (FDI) norms for the aviation sector, allowing 100% FDI into greenfield projects and 74% FDI into brownfield projects under the automatic route. The airport sector is estimated to see an investment of US$25 billion in the next 10 years, with nearly half coming from the private sector, an estimated figure of US$9.3 billion. From the government side, CapEx plans of Rs 65,000 Crore (US$10.08 billion) have been finalised by AAI for the next 5 years. In addition, Rs 22,000 Crore (US$3.41 Billion) has been allocated for the much-needed brownfield expansion of major city airports like Delhi, Hyderabad and Bengaluru. Rs 21,000 Crore(US$3.25 Billion) has been reserved for greenfield airports, which will be privately operated under the PPP model. Hence, the increased inflow of investments could alleviate the structural strains faced by India, provided they are utilised properly.

India's strong economic growth, coupled with forward-thinking government strategies, have given the aviation industry an impetus to grow. Rising disposable incomes and changing consumers' preference, both international and national, have led to an overall increase in demand for air travel. However, this positive trend has also brought to light the infrastructure strains plagued by India, which left unchecked, can have damning ramifications on the industry and economy. Hence, it is essential that the government continues to find avenues for infrastructural development of roads, airports, and hotels, whether through fiscal policies or foreign investments, to cope up with the demand of emerging travellers across various segments.

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Written by

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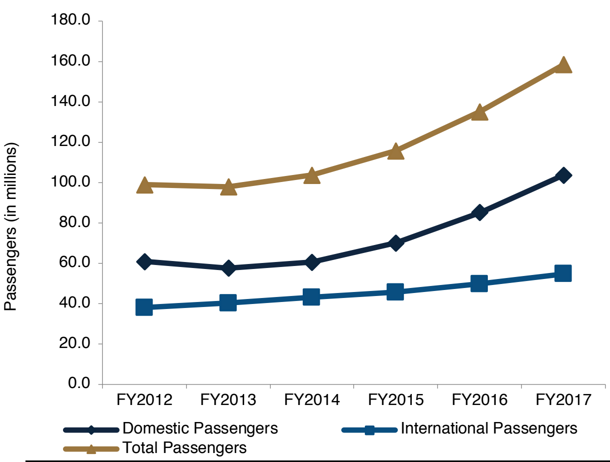
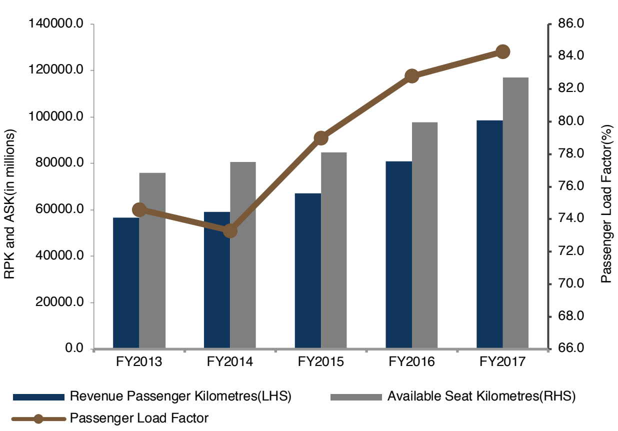
Figure 1: Passenger Traffic Breakdown (Domestic vs International)



Source: CAPA India Aviation Outlook 2017/2018, 2017

Figure 2: Capacity Vs Demand in Domestic Aviation Market (2013-17)



Source: DGCA Handbook on Civil Aviation Statistics, 2017

Headlines

- The market has seen healthy growth, with domestic and international passenger traffic growing at a CAGR of 14% and 8.6% respectively for the last 5 years
- Recent macro trends and changes have seen both domestic and foreign airlines scrambling to capitalize on opportunities
- India's airlines currently have the 3rd largest aircraft order book after USA and China
- Growth in domestic air travel demand has outpaced growth in international air travel demand with LCCs leading the charge
- Long Haul, Low Cost Model is set to become more prevalent with expanding middle-income segment seeking affordable travel options
- Encouraged by growth in demand, more airlines are adopting wide-body aircrafts for short-medium haul flights
- Rise of MRO sub-sector can generate cost savings and R&D opportunities for airlines

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India's Civil Aviation Industry:
A Dynamic and Competitive Landscape

India is said to have the potential to become the world's third-largest aviation market by 2025. The market has seen strong growth in both domestic and international passenger traffic over the last five years from FY12 to FY17, growing at a CAGR of 14.0% and 8.6% respectively[21]. Total passenger traffic registered a YoY growth rate of 17.4% from FY16-17, despite negative market sentiments following demonetisation and GST reforms. The large size of air carriers, high fixed costs and low-profit margins have resulted in a highly dynamic and competitive environment. The recent macro policies relaxing aviation regulations and improving regional connectivity have led to airlines making changes to their business and operation models in order to capitalise on opportunities. In July 2017, restrictions on foreign ownership of domestic carriers at 49% were lifted, allowing foreign investors to fully acquire domestic carriers.

As such foreign airlines are keen to enter and tap on the expanding domestic market, with Qatar Airways announcing plans in February 2018 for a subsidiary airline in India. On the other side, local operators like IndiGo and Spicejet are looking to diversify into international routes to alleviate domestic competitive pressure. Indian airlines' aircraft order book, at 1123 aircraft as of September 2017[22], is the third-largest globally after US and China. It also has the largest ratio of ordered aircraft to aircraft in service at slightly over 2.0 and it will possess the youngest fleet age globally, with an average age of 6.8 years, highlighting the industry's growth.

Low-Cost Carriers (LCC) Driving Growth

India's domestic air passenger traffic is increasing at the fastest rate among global markets, with domestic Revenue Passenger Kilometres (RPK) rising by 15.5% YoY in 9M17, complemented with a positive passenger load factor of 84.3% according to the International Air Transport Association. RPK YoY growth following 9M17 continued at double-digit rates of 17.1%, outpacing the increase in Available Seat per Kilometres (ASK) despite market expectations of lower demand following demonetisation in FY15 and the introduction of a nation-wide sales tax in FY17. LCCs are the primary operators for domestic routes, controlling 67.2% of India's domestic market despite only entering the market in 2003, with penetrations into Tier-II and Tier III cities such as Amritsar, Lucknow and Jaipur[23]. LCCs offer travelling services at cheaper rates compared to full-service airlines (FSCs). The feasibility of LCC operations is attributed to their low-cost model, which may include characteristics such as a low pricing strategy, simple pricing structures, short turnaround time, and online and direct ticket bookings which eliminate extra ground staff and vendors.

Until recently, LCCs were operating entirely in short-haul domestic flights as only carriers that had a minimum of twenty planes in their fleet and five-years of domestic operations were allowed to fly internationally. However, this changed with the implementation of National Civil Aviation Policy 2016 which eased regulations, allowing domestic airlines to fly overseas provided they allocate 20% or 20 planes on domestic routes. International traffic carried by Indian LCCs grew at a CAGR of 17.2% over FY12-FY17, driven by high demand in the Middle East and Asian-Pacific regions, with airlines such as IndiGo, SpiceJet, and GoAir expanding their routes around the continent, exceeding the overall growth rate of the India aviation market. With the expanding middle-income segment seeking affordable travel options, LCCs are expected to see further traction in both the domestic and international markets in India, especially with the rise of the long haul, low-cost model.

Changing Modus Operandi

The upward trend of domestic mobility, better regional connectivity and better investment environment have seen domestic passenger traffic grow at an exponential rate. With the domestic market's recent RPK YoY growth rate of 17.1% outpacing the ASK growth rate of 15.2%[24], compounded with overcapacity and slot constraints at major airports, some Indian carriers, confident of meeting passenger load factors, have begun increasing the number of short-medium haul flights on wide-body aircraft, despite narrow-bodies being the traditional choice for flying short distances[25]. Widebodies on high-volume domestic routes provide a high yield option for airlines, increasing Revenue Available Seat Kilometre (RASK).

Moreover, the ability to carry higher passenger volumes with wide-body aircraft will allow airlines that follow a spoke-hub model to easily connect more passengers to regional aviation networks and hubs. Hence, improved asset utilisation will create cost savings that can then be passed down to consumers, possibly leading to a decrease in air ticket prices and increasing demand. Deployment of wide-body aircraft will also free up a substantial number of narrow-body fleets which can then be used for the regional routes that have been newly opened under the GOI's Regional Connectivity Scheme that lack critical mass. From a service point of view, wide-body aircraft offer airlines the opportunity to offer better customer experience through better value-added services and more deck space for airlines to implement in-cabin features—something that is becoming a deciding factor in passengers' airline choices.

Establishing a Competent MRO Network

Despite being gradually established as one of the fastest growing aviation sectors globally, the industry has always struggled to develop a comparable Maintenance, Repair and Operations (MRO) network, with 90% of MRO work for local airlines being done overseas in countries such as Sri Lanka, Dubai and Singapore. However, this sentiment is set to change with the GOI recently laying the groundwork for the MRO sector to thrive, with tax exemptions from customs duty, airport royalties and value-added tax (VAT) for MRO operators in late FY16. More importantly, land has been allocated at all operational and future airports for MRO service providers, providing both domestic and international airlines with ease of access.

As such, according to Oliver Wyman, India is set to have the second highest growth rate in the MRO sector behind China, with a growth rate of 5.6% per annum from FY18-FY23[26]. With the increase in demand for air travel and the burgeoning fleet size of Indian airline operators, the need for a strong domestic MRO industry is crucial, with the market estimated to hit a value of US$5.2 billion by FY36. Generally, India airlines have the highest expenditure for MRO services per aircraft globally, spending 13-18% of revenue towards MRO services, with transportation of aircraft to foreign MRO facilities being a major cost.

Therefore, having competent domestic MRO facilities generates much cost savings, especially for airlines that operate domestic routes as they no longer need to transport aircraft over long distances for MRO work. In addition, aircraft built in FY10 or later are equipped with advanced IT systems such as advanced sensors, data collection, and autonomous functions. MRO facilities can therefore act as data centres, storing and utilising the data collected by aircraft that stop by. Uses include reducing errors, rework, and turn times on travel routes and expediting material or repair delivery. Thus, a competent local MRO sector can bring about cost-savings, improvement and innovation opportunities for the aviation industry.

Balance of Forces

India's aviation industry is largely untapped with huge growth opportunities. Industry stakeholders should engage and collaborate with policymakers to implement efficient and rational decisions that would boost India's civil aviation industry. Despite fluctuating oil prices putting a damp on consistent profit margins, smart adaptation of business operations with regard to the market environment, and the long-term development of important infrastructure and sub-sectors provide cost-rationalisation and R&D opportunities for airlines to further improve and innovate. With the right policies and relentless focus on quality, cost and passenger interest, domestic carriers are well placed to continue to grow and thrive in this dynamic market environment.

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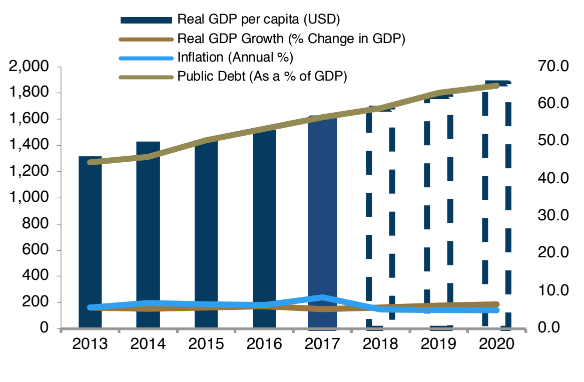
Kenya's Passenger Airlines Industry

Uncertain Flights into the Future

Written by

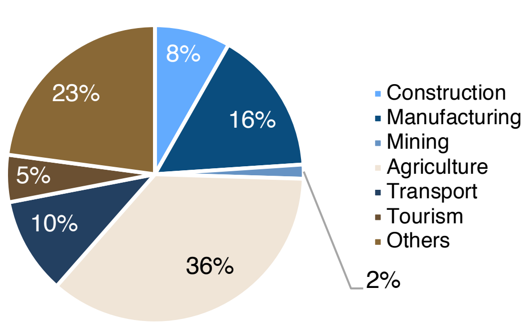
Ng Shi Min Associate

Figure 1: Kenya's Macroeconomic Outlook



Source: Statista (2018), Kenya National Bureau of Statistics (2018), Trading Economics (2018)

Figure 2: Kenya's Government Debt



Source: Trading Economics (2018)

Headlines

- Kenya's economic growth dampened in 2017 due to interest rate caps, huge public debt, droughts and rise in oil prices
- Outlook for 2018 remains dim albeit projected slight economic improvement due to Kenya's economic diversity and concentration in service industries
- The tourism sector is set to grow with rising arrival numbers due to favourable global demand factors and Kenya's lead in MICE and wildlife segments
- The passenger airline industry is set to grow in tandem with liberalization and an increase in the government's stake in Kenya Airways
- Government extends its reach in tourism and airline industry through increasing investments, reducing taxes and promotion. However, investments are hindered by political instability and government inefficiency
- However, such investments are unsustainable and unlikely to last in the long-run due to the looming debt crisis

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2018: Slight Improvement for the Kenyan Economy

Economic headwinds in 2017 saw Kenya's economic growth plummeting from 5.8% in 2016 to 4.5% in 2017[27]. Prospects remain dim whilst Kenya's government struggles to undertake tangible fiscal consolidations. Firstly, interest rate caps imposed by the Central Bank of Kenya (CBK) has saw sluggish private credit growth at 2.4% of GDP in 2018, compared to the robust 25% in 2016 prior to the interest rate cap introduction[28]. This is exacerbated as CBK introduces new accounting rules that may double impairments in 2018. Secondly, constrained by huge debt repayments and financing such as 2016's staggering US$ 2.6 billion in interest payment, Kenya's public debt stood at a hefty US$ 40.4 billion in 2017, compared to US$ 37.6 billion in 2016[29]. Presently, public debt to GDP ratio stood at 54% in 2017 and is expected to rise further to 59% in 2018[30]. Lastly, the ongoing drought since 2016 and rising global oil prices have seen inflation rates and operating costs rise across the economy. As a net oil importer, Kenya is highly prone to oil price fluctuations, having seen oil prices averaging US$ 55.0/barrel in 2017, up from US$ 44.6/barrel in 2016[31].

Despite headwinds, 2018 presents a slight economic improvement for Kenya due to its economic diversity, with Kenya moving up 12 places to 80th place in World Bank's 2018 Doing Business report[32]. Economic growth rates are projected to rebound slightly to 5.6%, due to the completion of infrastructure upgrades and projects as well as the strengthening of the global economy and services sector, which comprise the largest proportion to Kenya's GDP growth. In 2018, government investment to improve Kenya's rail, roads, Jomo Kenyatta International Airport (JKIA) and Moi Internationa Airport (MIA) are set to materialize, whilst Kenya is set to remain the leading regional hub for information and communication technology, financial, transportation and tourism services.

Growth of Tourism Industry, Enabled by Government

Kenya's tourism sector is set to grow from US$6.7 billion in 2016, at a rate of 5.6% p.a. to US$ 12.3 billion in 2027[33], comprising 9.5% of the GDP. Kenya's tourism boom is attributed to the rise in domestic, regional and international tourists into Kenya, propelled by the rise in global incomes per capita from US$ 7,200 in 2000 to US$ 17,300 in 2017[34] and rise in tourist's expectations toward experiential and value-added tourism. Total arrivals through Kenya's JKIA alone has seen a steady 9.7% growth from 1,974,901 arrivals in 2015 to 2,166,699 in 2017[35]. Likewise, visitor exports is projected to grow by 5.2% in 2017, up from US$ 1,706.2 million in 2016 and eventually 6.5% p.a. from 2017-2027 to US$ 3,386.0 million in 2027[36]. This growth is further enabled by the global downward pressure on airfare, due to the liberalization of regional air traffic through the Yamoussoukro Decision.

Most crucially, increases in both government and private funding into the promotion and growth of the tourism industry has seen the diversification of Kenya's tourism industry. Collaboration of the Ministry of Tourism with Kenya Tourism Board, Kenya Tourist Development and related boards, has seen a directed approach to boost Kenya's tourism through a 10-point strategy emphasizing infrastructure development, marketing efforts, human capital development and private sector investment. Combined with an increasing focus on domestic and regional travellers, developing the meetings, incentives, conferences and exhibitions (MICE) tourism segment remain Kenya's priority in 2018[37].

As such, we have seen the channeling of significant new financial resources into the sector, the slashing of taxes and fees levied. Budget allocation for the State Department of Tourism has been boosted from US$ 28.56 billion in FY 2015/2016 to an estimated US$ 60.43 billion in FY 2020/2021, an estimated 112% increase[38]. Funding for marketing activities rose sharply in FY 2016/2017, standing at US$ 43.9 million, up from US$ 34.7 million in 2015/2016. Removal of the 18% VAT fee on all park entrance fees has also reduced fees to by a third to US$ 59 in 2016[39].

Lastly, visa fees have been waived by US $98 for multiple-entry visas and US $49 for single-entry visa[40]. Ultimately, the combination of increased government efforts to render Kenya an attractive tourism hub and the reduction of costs for travellers have set Kenya's tourism sector on a path of growth, despite economic and political headwinds.

Passenger Airlines Industry to Grow in Tandem

As a corollary, Kenya's passenger airlines industry has grown in tandem with its tourism industry with a substantial rise in total passenger arrivals and departures into JKIA and MIA[41]. Currently, the airlines industry contributed US$ 3.2 billion (5.4% of GDP) to Kenya's economy in 2017 and plays a vital role in bringing US$ 15.6 billion indirectly into Kenya[42]. These increases can be attributed to firstly, greater regionalization and liberalization of the airline industry through increased regional commitments to finally implement the Yamoussoukro Decision. The signing of Single African Air Transport Market (SAATM) between 23 African countries in 2018 is estimated to contribute an additional US $76.9 million each year to Kenya's GDP as well as enable national carrier Kenya Airways unfettered access to countries in the African Union[43]. Air transport is expected to improve in terms of safety, security, technical standards and costs are expected to lower by 25%[44].

Furthermore, greater government stake in national carrier Kenya Airways (KQ) to improve the competitiveness of KQ to vie for both regional and international markets with their biggest regional competitors Ethiopian Airlines and South African Airways, is expected to further boost Kenya's passenger airlines industry. Efforts to streamline KQ's business operations, improve KA's financials and expand KQ's airline network have materialised through fleet reductions, debt restructuring, reorganizations and attainment of permits to direct international flights, giving KQ a boost from its US $253 million loss in 2016[45].

Success Hindered by Instability and Inefficiency

However, realization of Kenya's ambitious plans to boost tourism competitiveness is prone to the political instability, as well as government inefficiency in implementation. Although Kenya's short-term political situation remains broadly stable post 2017's elections, with Kenya's Short Term Political Risk Index having risen up from 45.4 to 51.3 out of 100[46], potential social unrest highlights underlying risks in Kenya's political landscape. Long-standing ethnic tensions fragment the political landscape, whilst disputes with neighbouring countries over East African railway deals and differing commitments in the Single African Air Transport Market (SAATM) highlight regional instability. This is further exacerbated at the Kenya-Somalia border by Al-Shabaab, presenting long-standing security risks to travellers[47].

Furthermore, long-standing government inefficiency has hindered investments from achieving fruition. Despite increases in government spending and FDI over the years, the average budget execution rate remains at 82%[48], with Kenya faring poorly on most aspects of investment and project management, because increases in investments across all sectors have not been accompanied with capacity enhancements. Furthermore, the rise of incremental Capital Output Ratio from 3.3 in 2003-07 to 5.3 in 2008-12 has further highlights the decline of efficiency and effectiveness in execution of government plans, which can be perhaps attributed to political strife[49].

Despite recent headwinds, the short-term prospects for both Kenya's tourism and passenger airline industry remain positive, supported by strong demand forces. Whilst the government increases its targeted efforts and budget in a bid to strengthen Kenya's tourism and airline industries, these efforts are unsustainable due to its debt crisis. Long-run political tensions and inherent government inefficiency further hinders returns on investments. Most crucially, the liberalization of the regional airline industry and the efforts of other SSA countries to improve their tourism and national airlines as well, entails that the regional passenger airlines industry is one of intense competition.

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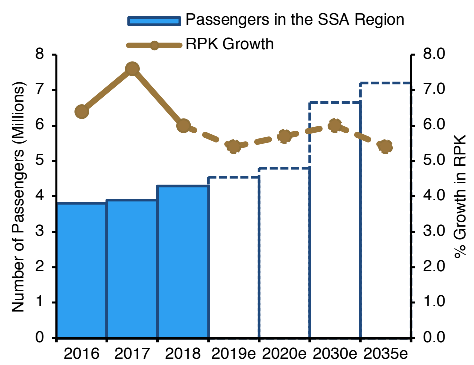
SMU EMERGING MARKETS

Research- Executive Brief

Emerging Markets Region- Africa (ICG) - Industry **Tuesday, 20 March 2018**

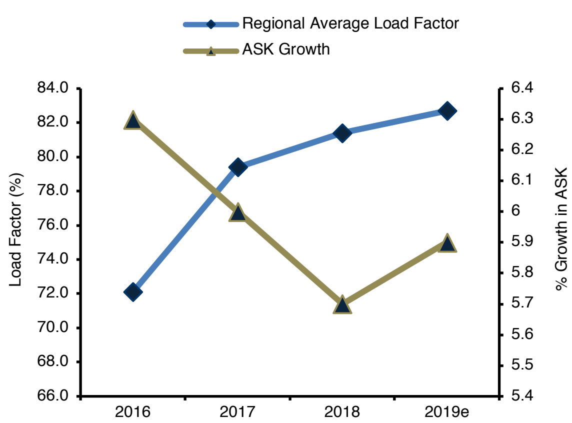
Written by
Ng Shi Min Associate

Figure 1: Passenger Traffic in SSA



Source: IATA (2018)

Figure 2: Capacity of the Passenger Airline Industry



Source: IATA (2018)

Headlines

- Growth in Kenya's passenger airline industry is expected due to its rising reputation as a prominent economic, trade and tourism hub
- Liberalization of regional skies coupled with increased air connectivity highlight massive growth potential
- Regional and international demand for passenger airline tickets are set to strengthen with increased connectivity
- Intense competition through improvement of service quality, cost reduction and competitive pricings are expected across all airline segments as players struggle for market share
- State involvements and investments are crucial in bolstering competitiveness of airlines amidst competitive pressures
- Rising fuel, labour and MRO costs pose a threat to net profitability industry-wide

Kenya' Passenger Airlines Industry

Soaring Competitive Pressures

Contributing a total of US$ 24.8 billion to Kenya's economy in 2017[50], the aviation industry is set to grow with the increasing government measures in the tourism and aviation industry. Strategic investments by the Kenya Airport Authority to improve JKIA's security and service provisions to meet international standards, through the US$ 285 million Aviation Modernization Project further spurs Kenya's passenger airlines sector by positing JKIA as an attractive stringboard to access the whole of Africa[51].

Strong Demand Forces Drive Sector Growth

Total passenger arrivals into JKIA increased, from 2.16 million in 2015 to 2.19 million in 2017 and total passenger departures from JKIA from 2.17 million in 2015 to 2.19 million in 2017 alone[52]. Currently, Kenya's airline industry is valued at US$ 3.2 billion (5.4% of GDP), with an anticipated 8% growth in yearly demand for passenger tickets[53]. This growth is greatly attributed to the rise in global incomes, trade and increasing willingness for travellers to pursue experiential and value-added tourism. In comparison to regional hubs, Kenya's transport infrastructure quality was ranked 6th out of 37 African countries and 78th globally. In terms of visa openness, Kenya was ranked 10th regionally[54]. Therefore, Kenya remains in a good position as an attractive economic, trade and tourism hub, highlighting the great potential of its passenger airlines industry to be tapped on.

Regionally, airline passengers are expected to increase from 3.9 billion in 2017 to 4.3 billion in 2018, with passenger traffic (measured by RPK) expected to rise 6.0%, which exceeds capacity expansion (measured by ASK) of 5.7%. This will drive the regional average load factor to a record 81.4%, with revenues from the passenger airlines business alone expected to grow to US$581 billion in 2018, a 9.2% increase from 2017's US$ 532 billion[55].

Intense Competition in All Segments

Furthermore, the materialization of Yamoussoukro Decision entails greater access to African skies, increased intra-African air connectivity and a bigger potential market. Whilst this highlights the immense demand potential to be tapped on, this highlights potential entrance of more carriers in the region to vie for market share. Presently, Kenya's national carrier Kenya Airways (KQ) controls approximately 27.7% of total passenger traffic at JKIA in 2016, down from approximately 32.1% in 2014[56], indicating that KQ's foothold over the passenger airlines industry has weakened over the years. Top regional carrier Ethiopian Air (EA) has risen to threaten KQ's share with competitive offerings. The growing presence of both regional and international carriers across all price points are also vying to tap onto the immense demand potential, engaging in intense competition through improving service quality, cutting down costs and engage in competitive pricing. With the intensification of competition, regional passenger capacity is set to grow 7.5%[57].

Crucial Role of States in Bolstering Competitiveness

Given the extensive scale of operations of the players in the airline industry and the international nature of competition, it is essential that governments make a concerted effort to enable airlines to continue to deliver their full potential. Implementation of global standards on security, adopting reasonable level of taxation, delivering smarter regulation and building cost-efficient infrastructure are necessary to accommodate the growth in demand of passengers and scale of operations[58]. For example, we see Zambia invest a total of US$ 1 billion in the development of aviation infrastructure to increase aviation activities[59]. In addition to establishing the relevant legal, economic and physical infrastructure, we see strategic investments and promotion of the country's tourism industry and national airlines across the region. Regional government contribution to investment` in their respective tourism industries totaled US$28.5 billion (6.2% of all investments) in the period of 2016-2017, while the regional airline industry drew more than US$32 billion. Across SSA, we also see the rise in marketing budgets for tourism industries by an estimated 3.4% yearly[60]. Whilst the state's role is imperative in bolstering competitiveness, it is limited by public debt balances. Players such as KQ and SAA are too hampered by corporate debt, with debts of US$ 2 billion and US $1.15 billion respectively[61]. Coupled with bank lending rate caps, it is increasingly difficult for players such as KQ to secure loans and compete effectively as they are limited by a lack of sustainable cash reserves to expand.

Presently, passenger flight choices especially for international flights, have long been constrained by the sub-optimal travel conditions – long layovers, relatively high fares, uncertain flight schedules and substandard service quality which have highlighted the challenges airlines face whilst they attempt to increase passenger traffic and reap profits. However, with the liberalization of the regional airlines industry, we see airlines addressing the above conditions, as well as providing value-added services along the value chain such as world-class inflight entertainment, specialized and localized service offerings. EA, has set up an aviation academy to boost its service quality[61]. Also, KQ has engaged in a partnership with telecommunication services provider Bharti Airtel to host KQ's MVNO and other network infrastructure services through a spectrum license, allowing KQ to enhance its customer value as well as diversify its revenue streams[62].

Furthermore, airlines are joining alliances, increasing codeshare agreements, expanding flight network and increasing flight frequencies to serve a larger pool of international passengers to supplement domestic revenue. The profitability of the growing sector has further attracted the entrance of low-cost carriers such as UK budget airline Fastjet into domestic flight routes. Intense competition have exerted downward pressures on prices, with Fastjet offering US$ 268 for a return flight from Nairobi to Kilimanjaro, as opposed to KQ's US$ 312[63]. In terms of cost reduction, airlines have innovated and streamlined supply chains through improving maintenance, repair and overhaul services (MRO), operations and logistic processes. To maintain high MRO standards, airlines such as KQ, have formed partnerships with experts in MRO innovation such as Etihad Airways, to perform operational and functional checks and repairs[64].

Rising Costs Eat into Profit Margins

With Africa's airlines incurring a combined loss of US$100 million in 2017, this trend is expected to continue into 2018, with the rise in fuel, labour and maintenance, repair and overhaul (MRO) costs. Despite fuel costs accounting for 18.7% of industry's cost structure in 2017, significantly below the recent peak of 33.2% 2012-2013, volatile oil prices pose a threat to airlines' operating costs. Higher oil prices are correlated with higher jet fuel prices – in 2016, oil prices averaged US$ 44.6/barrel and this rose to US$ 55.0 in 2017. This pushed jet fuel prices from US$52.1/barrel to US$64.9/barrel, a significant increase in absolute operating costs even though fuel accounted for a smaller proportion of the industry's cost structure[65]. In addition, labour costs have accelerated strongly, accounting for 30.9% of total operating costs in 2018[66]. Furthermore, despite the introduction of new technologies to improve MRO, maintenance costs have still risen by 1.7% since 2010, due to few suppliers of components and testing equipment[67].

In conclusion, Kenya's passenger airlines industry is one that is hotly contested – as with all other regional passenger airlines industries – as the country develops to becoming a leading economic, trade and tourism hub of the region. Players across the industry are offering competitive pricing, raising service quality as well as cutting costs in a race to reap profits and capture demand. On the backdrop of oil price uncertainty eating into operating profits and increasing government involvement to support national carriers, players that will shine would be those who efficiently employ capital and labour to boost their quality and service offerings, innovate and streamline operations to reduce costs, so as to maintain competitive prices to capture demand and eventually reap profits.

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