

# Air Transport in 21<sup>st</sup> Century

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# Overview

Global Aviation  
Industry



# Overview : Aviation Industry

- Airline direct revenue is in excess of USD 650 billion annually
- Contributes USD 2.9 Trillion to the global economy
- Aviation industry generates over 29 million jobs annually
- There are more than 900 airlines in the world, serving over 1700 airports

# Aviation Industry & Economy

Correlation of Economy with  
Aviation Industry



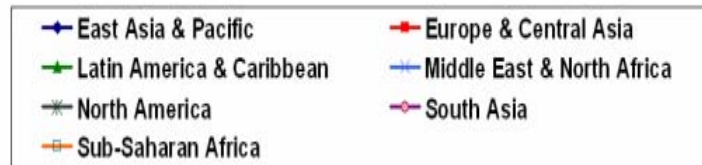
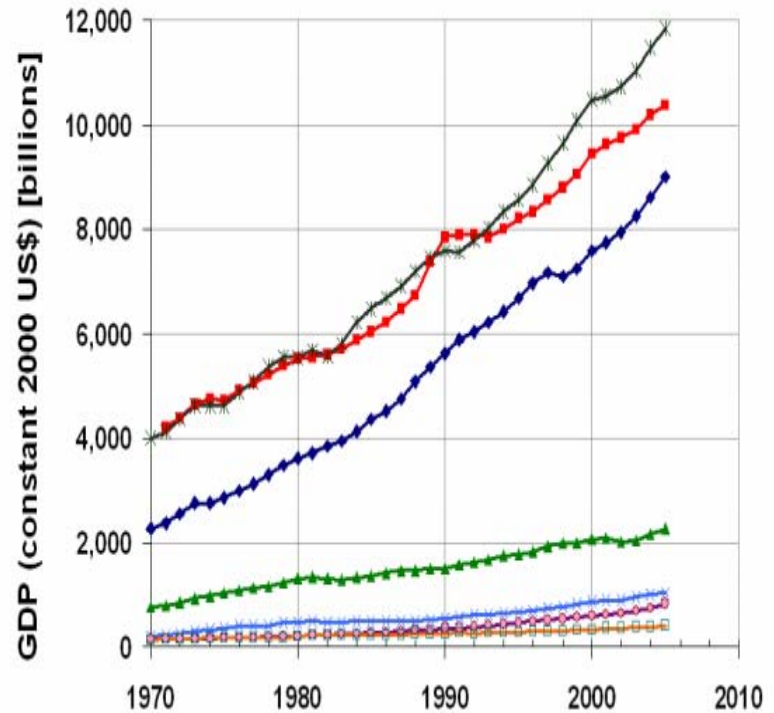
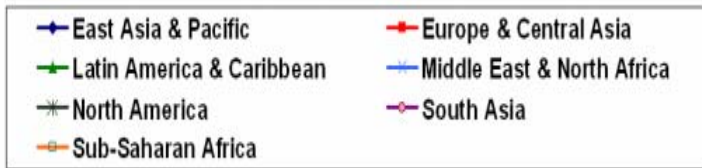
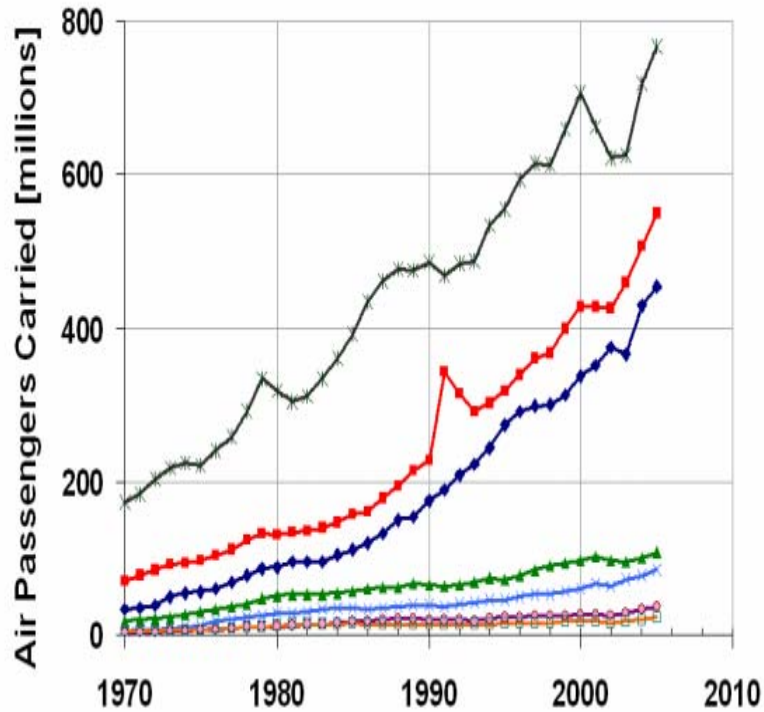
# Aviation Industry & Economy

- Investment in aviation industry has a multiplier factor of 600 - highest in any industry
- Air transportation impacts economy by :
  - Providing employment
  - Access to markets
  - Access to people
  - Access to capital
  - Access to ideas
  - Access to knowledge
  - Access to labor supply
  - Access to skills
  - Access to opportunity
  - Access to resources
- The economy in turn provides capital and generates demand for passenger and freight travel.

# Aviation Industry & Economy

- General rule of thumb is 1% increase in GDP should lead to a 1.5% increase in passengers traffic.
- Domestic traffic in Pakistan has grown only 30% in the last 15 years versus 600% Indonesia
- Air Transportation and Economic Activity have shown correlation

# Aviation Industry & Economy (Continue...)



# Aviation Industry & Economy

## Top 10 airlines of 2011 by ASKs

Delta Air Lines	6.8 billions
American Airlines	5.0 billions
United Airlines	3.9 billions
Emirates	3.8 billions
Lufthansa	3.4 billions
Southwest Airlines	3.4 billions
Continental Airlines	3.2 billions
Air France	3.0 billions
British Airways	3.0 billions
Ryanair	2.5 billions



# Aviation Industry Business Models

Types , Kinds and Case studies



# Aviation Industry Business Models

## Breakdown of top 200 airlines by airline type in 2009

	<b>Passengers Transported</b>	<b>Load Factors</b>	<b>Yield US \$ Cents/ RPK</b>
<b>Full Service Airlines</b>	1.57 billion	77.1%	6.81
<b>Low Cost Carriers</b>	523 million	81.8%	5.97
<b>Regional Airlines</b>	219 million	73.3%	8.86
<b>Charter Airlines</b>	56 million	99.8%	3.62
<b>Total</b>	2.3 billion	-----	-----

# Traditional Carriers

Evaluation & Threats

# Traditional Carriers

- Multiple Passenger Cabins
- Rely on passenger and cargo revenue, with cargo being up to 10%
- Hub & Spoke
- Interconnectivity with partner airlines, opens up additional destinations
- Amenities, such as meals, airport lounges, limousine service and frequent flyer programs
- Extensive distribution channels; website, travel agents, call centers etc.

# Traditional Carriers : Threats

- Decades of regulation and complex business models ensure high cost structures, which is sometimes translated into sustained and recurring losses. For e.g. BA has more than 3.7 Billion USD as deficit in their pension fund and consequently have to incur significant financial costs
- Increase in fuel prices and constantly diluting yields are reducing operating margin
- To counteract this, legacy carriers have undertaken widespread cost cutting measures by eliminating many of the passenger services, this has lead to the birth of the low cost carrier model

# Low Cost Carriers

Comprehensive Evaluation

# Low Cost Carriers

- Southwest was the first true LCC in 1971, and to date remains one of the most profitable airlines in history
- The concept is to eliminate frills, maximize utility of both employees and fixed assets, and improve revenue through ancillary means
- In 2009, Ryanair's unit cost was 55% lower than that of Air France/KLM

# LCC- Explained

- LCC charges for services such as checked in baggage, advance seat selection meals and sometimes even water!
- They operate point to point, and instead of waiting for connecting passengers and focus on shorter turnaround. Southwest average turnaround is 22 minutes vs 45 minutes for legacy carriers
- LCC rely on ancillary revenue streams generated by 2 unique practices:
  - Dismantling the fare structure and charging for individual flight products (pre-assigned seats, meals etc)
  - Cross-selling third party travel by-products (hotel booking, car reservations etc.)



# 21<sup>st</sup> Century Product

Ancillary Revenue

# 21<sup>st</sup> Century Product

- Core Product , Actual Product and Augmented Products

<b>Core Product</b>	<b>Unbundled Product</b>	<b>Commission- based ancillaries</b>
Safety	Mobile Phones	Car Rental
Schedule	Seat Assignment	Hotels
Reliability	Food & Drinks	Cruises
	Seat Exit	Golf
	Internet	Travel Insurance
	Baggage Fee	Tourists Attraction
	Express Check-in	Airport Car Parking

# Ancillary Revenue of top 5 airlines

2008 (euro millions)

American Airlines	1,650
United Airlines	1,200
Delta Airlines	1,125
Ryanair	625
Qantas	459
<b>Total</b>	<b>3934</b>

2006 (euro millions)

United Airlines	416
Ryanair	362
Easy Jet	189.5
Alaska Airlines	134.7
Aer Lingus	63.4
<b>Total</b>	<b>1165.6</b>

Within two years it has more the tripled!

# Case Studies

Ryanair & Emirates

# Ryanair Vs Emirates

- Two of the most successful airlines of the 21<sup>st</sup> century, but for very different reasons
- Ryanair is the world's largest airline in terms of traffic
- Emirates is one the most profitable airline in the world and has been a key factor in ensuring that 34% of UAE GDP is a result of Aviation related services

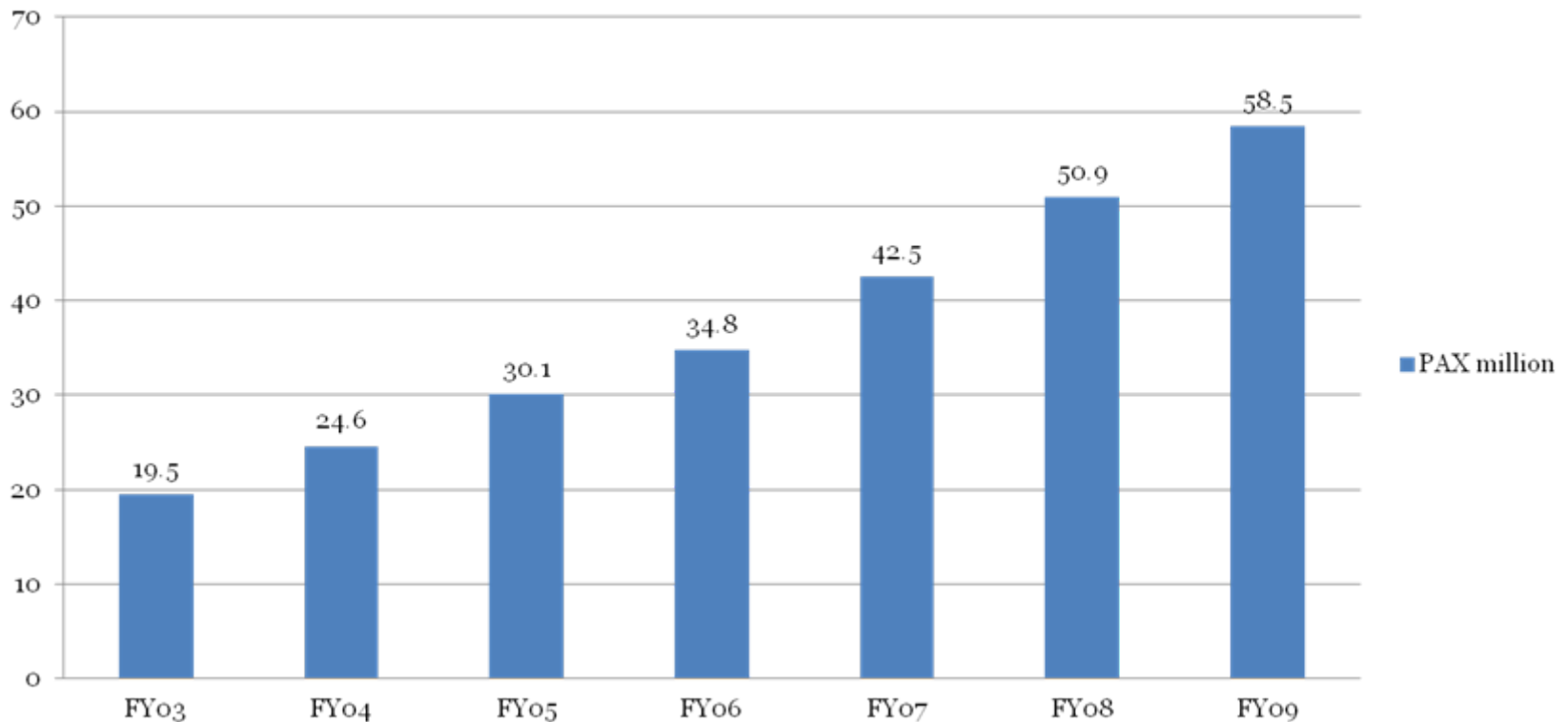
# Ryanair : Overview

- Ryanair operates at an average fare of Euro 39 per passenger and carried over 70 million passenger in 2011!
- They operate point to point mostly within Europe mostly and offer no frills; where most flights are to secondary airports more inclined to give Ryanair better deals
- No frills are offered, and even though they have only online sales, the revenue is enhanced for using the credit card

# Ryanair : Pax Growth

Ryanair has more than tripled b/w 2003-2009

**Ryanair Passenger Growth : FY03 - FY09**



# Ryanair : Top Ancillary Revenue Sources

## Ryanair ancillary revenue model(millions of Euros)

	2002	2003	2001	2005	2006	2007
<b>Car Hire</b>	6.59	9.62	12.23	15.71	19.75	26.51
<b>Food</b>	0.39	0.49	0.69	0.81	1.02	1.83
<b>Beverages</b>	0.8	1.03	1.27	1.35	1.75	2.62
<b>Merchandise</b>	0.16	0.17	0.2	0.27	0.36	0.81
<b>Internet Income</b>	4.83	12.16	17.72	24.36	27.3	39.42
<b>Sale of Rail Ticket</b>	0.63	0.94	1.62	2.05	3	3.62
<b>Sales of Bus tickets</b>	0.17	0.25	0.39	0.59	0.78	1.28
<b>Hotel Accommodation</b>	1.72	3.2	5.47	7.4	11.41	19.27
<b>Insurance</b>	0.29	0.58	0.96	3.73	7.3	9.29
<b>Priority Boarding/Online Check-in</b>	0	0	0	9.93	18.78	53.59
<b>Visa Card Partnership</b>	0	0.11	0.28	0.46	0.76	1.23
<b>Flight Change Fee</b>	2.03	3.49	5.74	6.55	8.81	11.62
<b>Name Change Fee</b>	2.08	4.43	6.51	8.28	11.08	15.95
<b>Credit/Debit card fee</b>	7.07	15.66	31.29	60.43	76.14	93.15
<b>Infant Fee</b>	0	0	1.27	1.87	2.27	3.3
<b>Excess Baggage</b>	2.2	5.37	11.27	13.33	25.31	17.01
<b>Sports/Music Equipment</b>	0.9	2.08	3.09	3.37	5.46	8.63
<b>Total Ancillary Revenue</b>	29.86	59.58	100	160.49	221.28	309.18
<b>Revenue from Ticket Sales</b>	551	732	925	1128	1433	1875
<b>Ancillary Revenue as a percent of Total Revenue</b>	5.40%	8.10%	10.80%	14.20%	15.40%	16.50%



# Ryanair : Ancillary Revenue Sources

The screenshot displays the Ryanair website interface. At the top, the Ryanair logo is prominent on the left, and navigation links for Flight Info, Contact Us, Fees, Conditions, and Feedback are on the right. A language selector is set to UK (English). Below the navigation bar, a horizontal menu highlights several ancillary revenue sources: CAR HIRE, UP TO 80% OFF HOTELS!!!, INSURANCE, CREDIT/PREPAID CARDS, AIRPORT TRANSFER, TRAVEL PLANNER, ROUTE MAP, and MANAGE MY BOOKING. A large promotional banner on the left features a price of £10.99. The central booking widget is set to Flights, with options for Return or One-Way, flexible dates, and fields for origin, destination, and dates. A 'Book Now' button is visible. To the right, a sidebar lists various services, with a prominent blue box for Hertz offering a 25% discount for booking in advance. At the bottom, a News section reports on flight cancellations, and a footer contains links for Cheap Flights, Destinations, Sun Holidays, and Special Offers.

**RYANAIR** Flight Info Contact Us Fees Conditions Feedback UK (English) Search FAQ

FLIGHTS CAR HIRE UP TO 80% OFF HOTELS!!! INSURANCE CREDIT/PREPAID CARDS AIRPORT TRANSFER TRAVEL PLANNER ROUTE MAP MANAGE MY BOOKING TOURS & ACTIVITIES GIFT VOUCHERS

**£10.99**

BOOK TIL TONIGHT, TRAVEL IN MAY, FARES ONE WAY FROM. T&C'S APPLY  
FARES DON'T INCL. OPTIONAL FEES/CHARGES. CLICK HERE

**Flights** Hotel Hertz

Return  One-Way Flexible dates

From Date

To Date

I read & accept the terms of use of Ryanair's website

Adults 1 Child <16 0 Infant <2 0 **Book Now**

**Online Check-in**

Car Hire

**Hertz**  
BOOK IN ADVANCE  
and save up to  
**25%**

Hotels

Hostels and B&Bs

Home Exchange

Gift Vouchers

Holiday Rentals

London Trains

**News** 02-03 Apr - Flight Cancellations - French ATC Strike

Cheap Flights Destinations Sun Holidays Special Offers

# Ryanair : In-flight Advertising



# Ryanair : Conclusion

- Ryanair has taken the LCC model a step further by leveraging their volume for negotiating better deals across the supply chain.
- Pau airport in France paid Ryanair 1.4 million Euros in 2010-2011 to fly to their airport, the premise being that additional traffic will benefit the local economy
- Used technology to reduce costs, in Oct 2009 Ryanair stopped offering check-in desks

# Ryanair : Conclusion

- Some methods of Ryanair can be viewed as extreme however it is all part of their single minded determination of reducing costs. For e.g.
  - Ryanair is not in compliance with EU law for handling customer complaint. The only way to complain is through fax, or premium calling numbers!
  - In 2008 Ryanair came under scrutiny for pressurizing their pilots to reduce the amount of discretionary reserve fuel uplifted to optimize performance

# Ryanair : Conclusion

- Ryanair is dynamic, constantly evolving and pushing the boundaries of their operating environment. They have been known to pull out of airports simply because of either their subsidies withdrawn or increased Airport tariffs.
- However this single minded determination for ever reducing costs has significantly contributed in the growth of traffic

# Case Study

Emirates



# Emirates : Overview

- Emirates was started in 1985 with leased aircraft from PIA
- 25 years later it's the most profitable airline in the world, with a net profit of USD 963 million in 2009/2010
- This has allowed Dubai to shift away from oil revenue as the single biggest contributor to GDP; today 34% of Dubai GDP is linked to travel and tourism

# Emirates : Overview

- Dubai is the ideal gateway b/w Europe and Asia, with an estimated 4.5 billion people living within an eight hour flying radius (Similar to Karachi)
- To effectively target the various market Emirates has placed on order more than 217 wide body a/c roughly equal to the current fleet size of Cathay Pacific and Iberia combined!
- Emirates success can be attributed to 3 significant factors:
  - Effective use of Hub and Spoke;
  - Cost Conscious
  - Heavy expenditure on branding



# Emirates : Hub & Spoke

- Traditional legacy carriers succumb to the hub and spoke model and therefore do not have excellent penetration in non-regional markets
- Emirates has a very widespread geographical dispersion and this insulates it from recession in any individual market
- It is operating in 115 destinations in 6 continents, collects its passengers in Dubai and then redistributes them across its network

# Airlines' Revenue Share Across Regions

	Europe	The Americas	Africa and Middle East	Indian subcontinent	Asia Pacific and Australia
British Airways	63.7%	19.3%	9.4%	Included in Africa & Middle East	7.6%
Lufthansa	47.2%	26%	6.7%	Included in Asia Pacific	20.1%
Air France – KLM	68.6%	15.5%	5.7%	Included in Asia Pacific	10.1%
Emirates	35.9%	Included in Europe	25.4%	8.9%	29.8%
Singapore Airlines	17.3%	8.3%	Included in Indian sub	7.8%	66.6%

# Emirates : Hub & Spoke

- Dubai airport has already increased its capacity from 43 million to 70 million, and has initiated work on a second airport that will be capable of handling 160million passengers annually!
- It is optimally utilizing its 6<sup>th</sup> freedom rights to connect Europe to Africa and Asia

## Emirates weekly departures from each country in 2000, 2005 and 2010

	2000	2005	2010
India	25	78	184
UK	35	78	98
Australia	7	63	97
Germany	14	35	49
China	8	16	49
Thailand	14	24	42
Pakistan	32	36	37
South Africa	7	14	35
Qatar	18	28	35
US	0	7	35
Italy	6	7	34
Singapore	22	36	32
New Zealand	0	28	28
Kuwait	10	11	28
Saudi Arabia	9	15	23
Sri Lanka	15	22	22
Bahrain	14	14	21
France	3	7	21

# Emirates :Cost Conscious

- Where Emirates has not initiated some of the more drastic measures seen by LCC they have been very cost conscious
- Younger fleet (average 5.5 years vs. 11.4 for BA) allows it to save on fuel and maintenance costs
- Maintenance costs for Emirates are only 1.5% of their overall expenditure vs. 7.5% for BA
- Emirates is able to source cheap labor from neighboring Pakistan, India, Sri Lanka, Nepal
- Lack of labor laws ensures that this cost of Emirates do not rise rapidly

# Emirates :Cost Conscious

Emirates cost comparison against British Airways and Singapore Airlines ( Eurocents),  
year ending March,2008

	Emirates	British Airways	Singapore Airlines	Emirates v British Airways(%)	Emirates vs Singapore Airlines (%)
Fuel/ATK	8.12	11.4	9.71	-29	-16
Labor/ATK	4.36	12.01	5.89	-64	-26
Landing & Navigation/ATK	1.45	2.93	1.28	-51	13
Handling	1.69	5.42	1.13	-69	50
Aircraft Maintenance/ATK	0.5	2.5	0.83	-80	-40
Depreciation & Amortization/ATK	1.34	3.84	2.96	-65	-55
Distribution & Sales/ATK	2.8	1.99	1.34	41	109
Operating Leases/ATK	2.83	0.38	0.74	645	282
Total Cost/ATK	26.56	43.69	26.75	-39	-0.7
<b>Total Revenue/ATK</b>	<b>28.78</b>	<b>48.55</b>	<b>30.86</b>	<b>-41</b>	<b>-6.7</b>

# Emirates : Branding

- Where most airlines have had to cut back on advertising due to stifling losses, Emirates has made significant investments in landmark events.
- In addition UAE has made sig. efforts to brand related products such as the Dubai Duty free
- Dubai duty free sales were in excess of 1.1 billion USD last year (more than 7% of global duty free sales – largest duty free sales in the world)

# Emirates : Branding

## Sponsorship Activities of Emirates

Football	Rugby	Golf	Cricket	Horse Racing
FIFA 2006,2012 and 2014 World Cup	World Cup 2011	Dubai Desert Classoc	ICC Umpires	National Thoroughbred Racing Association
Arsenal FC and Emirates Stadium , UK	IRB Referees and Match officials	Dubai Ladies Masters	Cricket Australia	Dubai World Cup
AC Milan, Italy	Dubai Rugby Sevens	Malaysian Open	Lord's Taverners	Melbourne Cup , Australia
The Emirates Cup	South African Rugby Sevens	Hong Kong Open	Pro Arch Tournament	Singapore Derby
Paris Saint Germaine	London Sevens	BMW Open		Australian Jockey Club
Hamburg SV	Edinburgh Sevens	Australian Open		
Olympiacos CFP , Greece	World Cup Sevens	Volvo Masters of Asia		
Asia Football Confederation(AFC)	Emirates Westerns	Hero Honda Open		



# Conclusion

- FAA predicts air travel to double over the next 2 decades
- Air Transport has a bright future in 21<sup>st</sup> century however being a dynamic industry it is likely to evolve and may not be in the same shape as we see today
- The Ryan Air model is likely to further evolve and we will see different segments of the value chain being targeted
- The Emirates model focuses on incremental improvement and the fact that a legacy carrier whose operations are spread in 6 continents made a profit nearing USD 1 Billion amidst a global recession shows that this industry will flourish in the foreseeable future

# Conclusion (continue...)

- The benefits of rapid growth of air transport to the economy are too significant to be ignored
- The evolving Air Transport industry has forced innovations in other related markets. The entire fuselage of the 787 Dreamliner is made from composite material thereby allowing for much lower fuel burn. The A320 NEO family has introduced a revolutionary engine with 20% lower fuel burn
- Moving to Pakistan, we have seen passenger numbers grow whenever capacity has been added. One of the highest passenger numbers were observed in 1996 when maximum passenger carriers were operating. Similar phenomenon has been seen since the advent of Bhoja Air!

# Air Transport in 21<sup>st</sup> Century

Thank You For Being Part Of This Event