



Evolution of economic regulation of UK airports

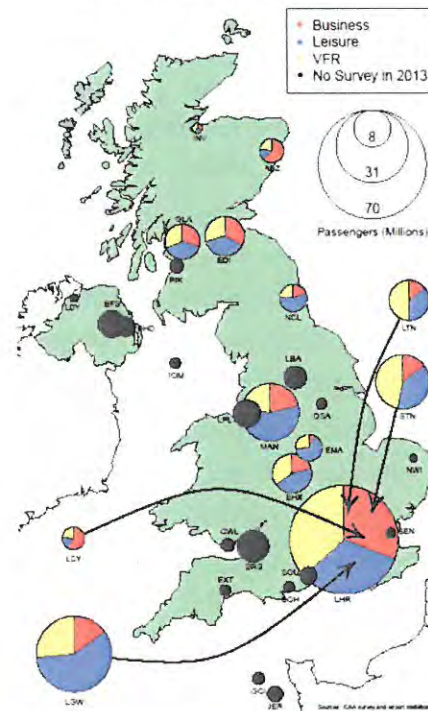
- § Privatisation and the Airports Act 1986
- § Evolution under the 1986 Act
 - § Price caps set at Heathrow, Gatwick, Stansted & Manchester
 - § A five-year regulatory cycle
 - § System approach to regulation
 - § Move to stand alone regime by 2004
- § 2004-2012 reform agenda
 - § Independent reviews and government policy process
- § 2012 Civil Aviation Act
 - § New primary duty focused on users:
 - § CAA must carry out its functions "in a manner which it considers will further the interests of users of air transport services regarding the range, availability, continuity, cost and quality of airport operation services".
 - § Airports subject to economic regulation following three stage market power test



When we economically regulate an airport

2013 CAA Passenger Survey Airports

- § Following a three stage test
 - § Airport has substantial market power
 - § Competition law alone does not provide sufficient protection
 - § Benefits to users from regulation are likely to outweigh the adverse effects.
- § Existing coverage
 - § Of the 60 airports in the UK, two are subject to economic regulation
- § Flexibility in 2012 Act
 - § More flexibility than the five-year regulatory cycles in the past
 - § Use of different forms of regulation



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Heathrow – Market Power and Regulation

- § Lack of capacity and hub effects means that Heathrow has Substantial Market Power (SMP)
- § RAB approach deemed the most appropriate form of regulation:
 - § Suitable for markets with high level of market power
 - § Balances the needs of passengers and investors
 - § Agreement between airport and airlines
- § Heathrow's charges will not rise by more than RPI-1.5%
- § Capital expenditure settlement included:
 - § Constructive Engagement over capex programme
 - § Core and development capex to allow flexibility
 - § Airport and the airlines agree what is built

4

§ Market power test met by Gatwick:

- § Gatwick has SMP, due to its density of leisure routes, wealth of catchment and the inherent attractiveness and limited capacity of the London market
- § Airlines are unlikely to be able to credibly threaten Gatwick

§ Commitments provide benefits over RAB regulation:

- § Encourages bi-lateral, tailored contracts
- § Provides increased certainty
- § Reduces direct costs of regulation

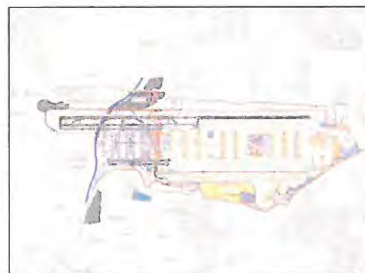
§ Commitments offered by Gatwick to airlines backed by a licence

- § Enforced by the CAA – with statutory duty to further passengers' interests
- § As opposed to Gatwick's commitments being enforced by airlines

§ Monitoring regime :

- § Ensure Gatwick's price based on published charges and bilateral contracts does not rise above RPI-1.6% pa

New runway capacity – The Airports Commission options

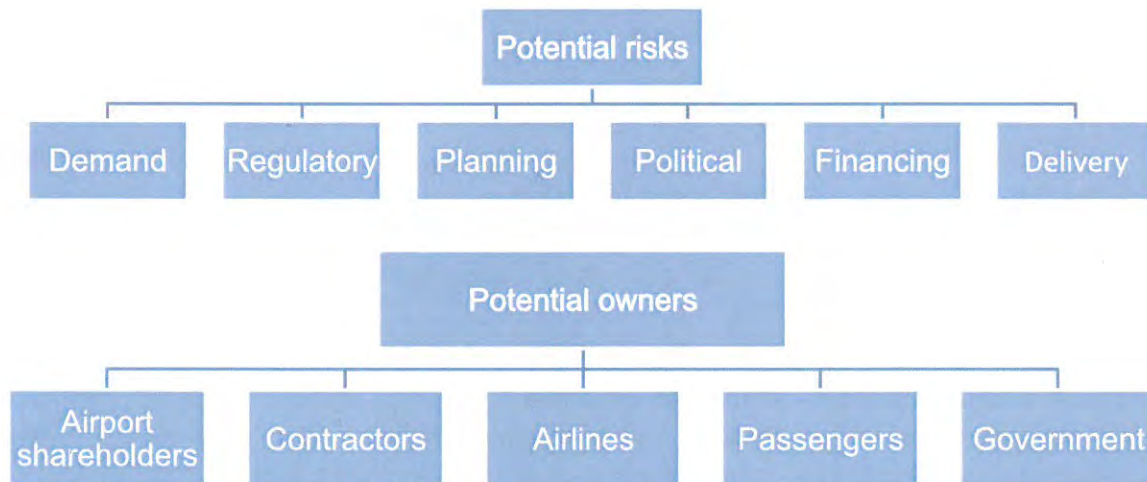


- § Category A costs – engaging the Commission
 - § Costs should be borne by the proposer
 - § Political not planning / delivery process
 - § Equality of treatment for short-listed schemes
 - § Users not burdened with costs shareholders have incurred for their own commercial reasons
- § Category B costs – the planning process
 - § Tiered amount of spending allowed
 - § Spending follows government approval – fair for users to bear some cost, while incentivising efficient spending
- § Category C costs – construction
 - § Less detail at this stage – focused on principles
 - § Principle 1: Commercial negotiations should be encouraged
 - § Principle 2: Risk should be allocated to those who can manage it best
 - § Principle 3: Capacity can be paid for both before and after it opens

Runway capacity – Focussing on commercial outcomes

- § Normal airport / airline relationships are based on contracts
- § Even at some regulated airports this has occurred
- § But regulation has tended to crowd out such contracts
- § Constructive engagement
- § What would the parties be negotiating? Airports cannot pre-sell access to new capacity...
- § Discounts?
- § Cautious optimism...

Runway capacity – Allocating risks to those best placed to manage them



9

Runway capacity – When should passengers begin to pay?



- § Pre-funding has benefits for passengers
 - § Lowers risk and costs by paying down costs more swiftly
 - § Spreads cost over a longer period
- § More akin to the normal operation of a commercial market
- § But commercial agreements would ideally be in place to take any decision on when passengers should start paying out of the regulator's hands...

10

CAAi Services in Economic Regulation

Benefitting from over 25 years of experience in economic regulation, as a subsidiary of the UK CAA, CAAi offers a number of services providing advice on aviation policy from an economic standpoint. Applying our expertise on economic policy and strategy in aviation, we aim to secure the best sustainable outcome for users of air transport services in the following areas:



- Economic regulation of airports and Air Navigation Service Providers
- Government aviation policy
- Service quality regulation and audits
- Design of capital and cost efficiency incentives
- Consultation processes and constructive engagement
- Airport/ATM regulatory financing
- Economic and regulatory training
- Airport passenger surveys and market reports
- Aviation forecasting and statistical analysis
- Competition and market power assessment
- Environmental impact assessment
- Consumer policy and enforcement
- Aviation dispute resolution

CAAi
Above and beyond

CAA International Limited, Aviation House, Gatwick Airport South, West Sussex RH6 0YR, United Kingdom
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FitchRatings

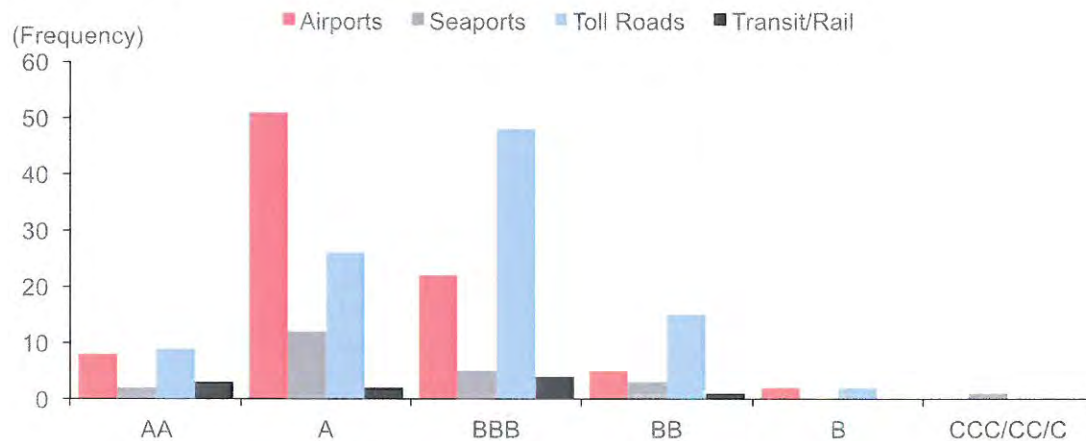
What makes airports attractive to debt investors?

Dan Robertson, Managing Director

26th February 2015

Strong ratings profile of most airports

Distribution of Fitch's Global Transportation Ratings



Source: Fitch

FitchRatings

www.fitchratings.com

1

Airports have positive and negative aspects for investors

Positive

- ü Potential for revenue growth
- ü Diversification from domestic economy
- ü Flexibility to respond to downturns
- ü On-going debt funding requirement

Negative

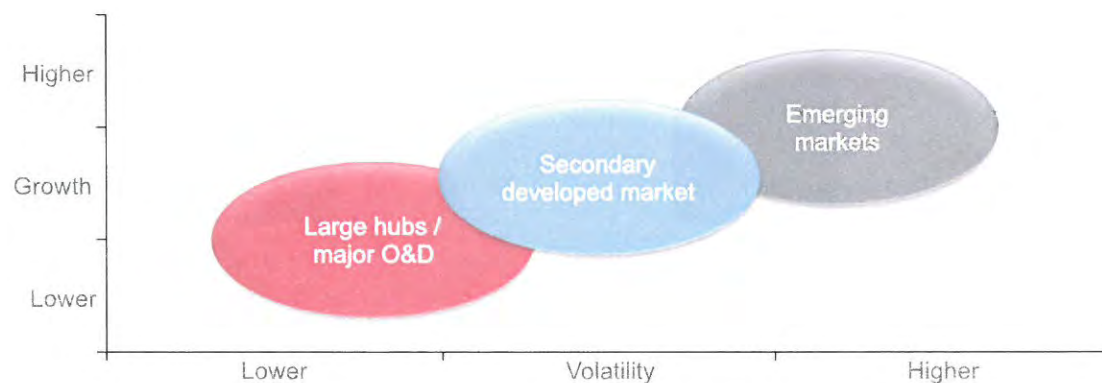
- û Airline fragility and risk of strategy change
- û Exposure to competition
- û Complex case specific analysis
- û Discretionary leisure & retail spending

FitchRatings

www.fitchratings.com

2

Not all airports are equally attractive investments



Source: Fitch

FitchRatings

www.fitchratings.com

3

Ratings reflect business and financial risks

	Heathrow UK	A. di Roma Italy	MAG UK	Brussels Belgium	DME Russia
Volume risk	Stronger	Midrange	Midrange	Midrange	Midrange
Price risk	Midrange	Midrange	Midrange	Midrange	Midrange
Debt structure	Midrange	Weaker	Midrange	Midrange	Weaker
Net debt / EBITDA	7.0x	3.0x	3.8x	6.6x	1.7x
Rating	A- / Stable	BBB+ / Stable	BBB+ / Stable	BBB / Stable	BB+ / Stable

Source: Fitch

FitchRatings

www.fitchratings.com

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Ratings reflect business and financial risks

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Source: Fitch

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Price risk	Midrange	Midrange
Debt structure	Weaker	Weaker
Net debt / EBITDA	3.0x	1.7x
Rating	BBB+ / Stable	BB+ / Stable

Source: Fitch

People in pursuit of answers

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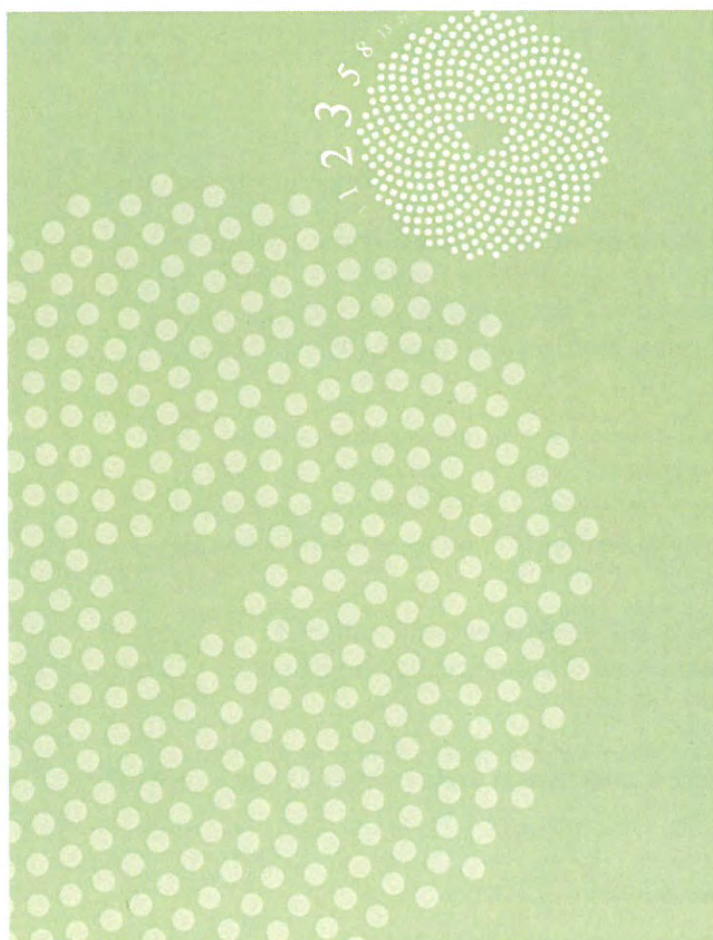
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Choosing the Right
Performance Management
Solution



Corporate Performance Management through our eyes:



Analysing
Past Data



Reporting
Present Data



Planning
Future Data



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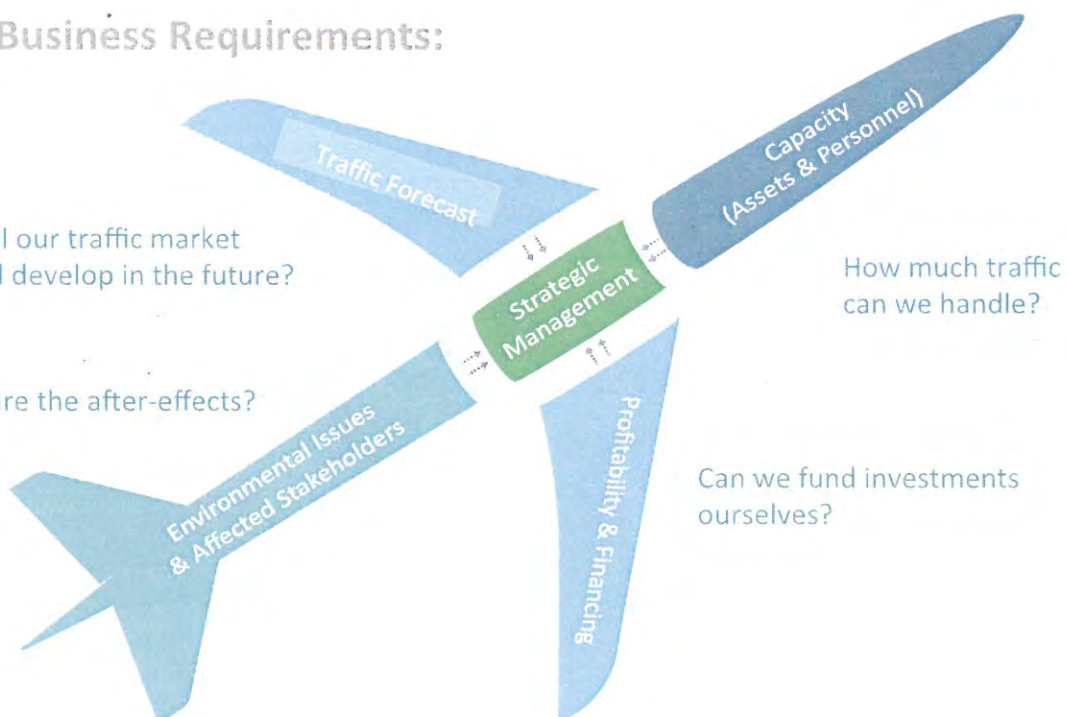
OneClient platform



Key Business Requirements:

How will our traffic market
demand develop in the future?

What are the after-effects?

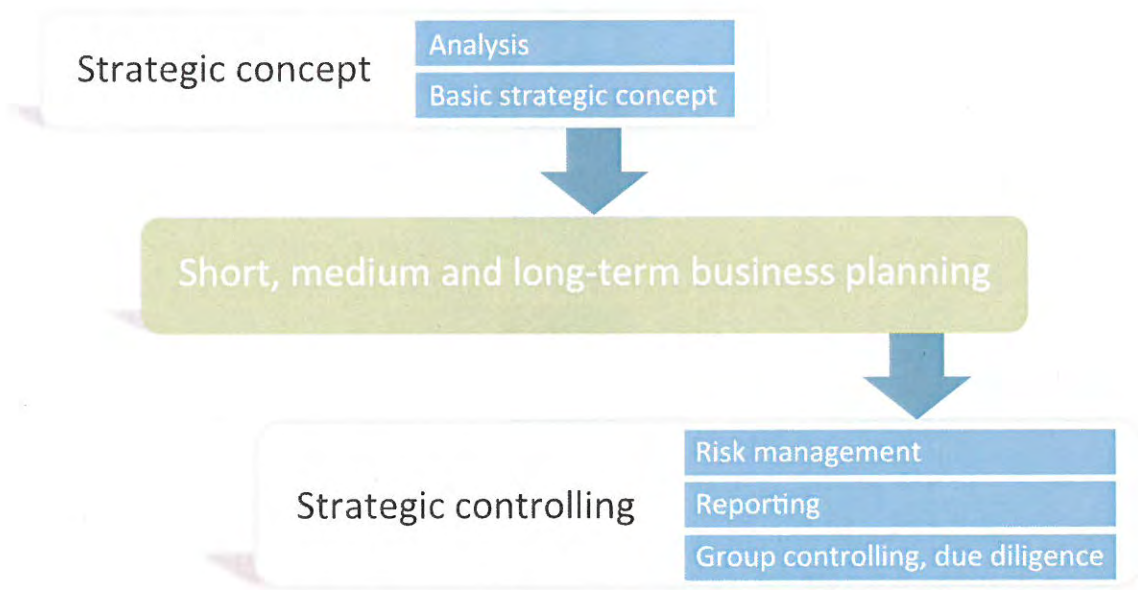


How much traffic
can we handle?

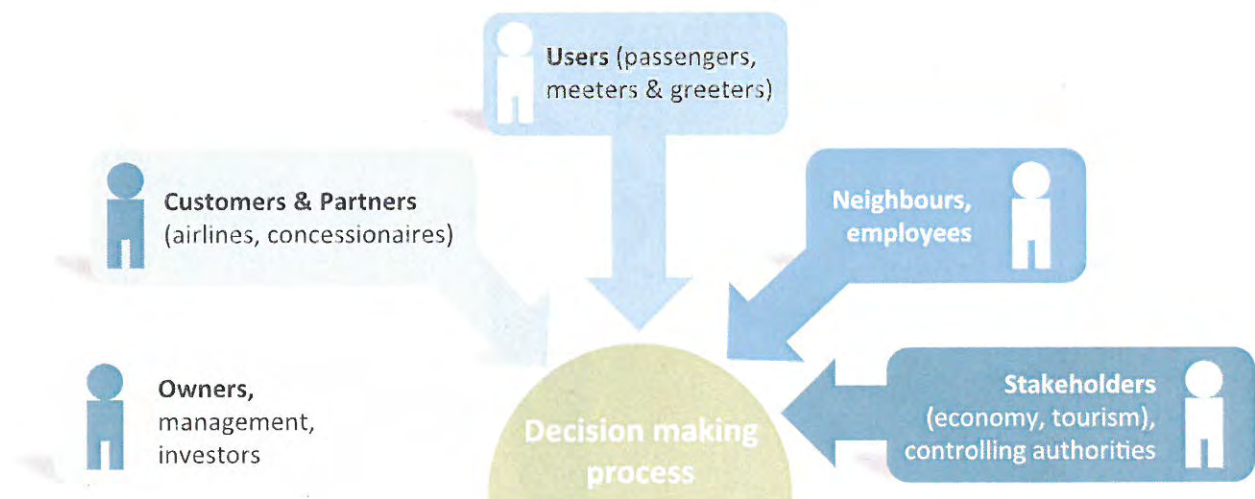
Can we fund investments
ourselves?



Consistent Integrated Planning Concept



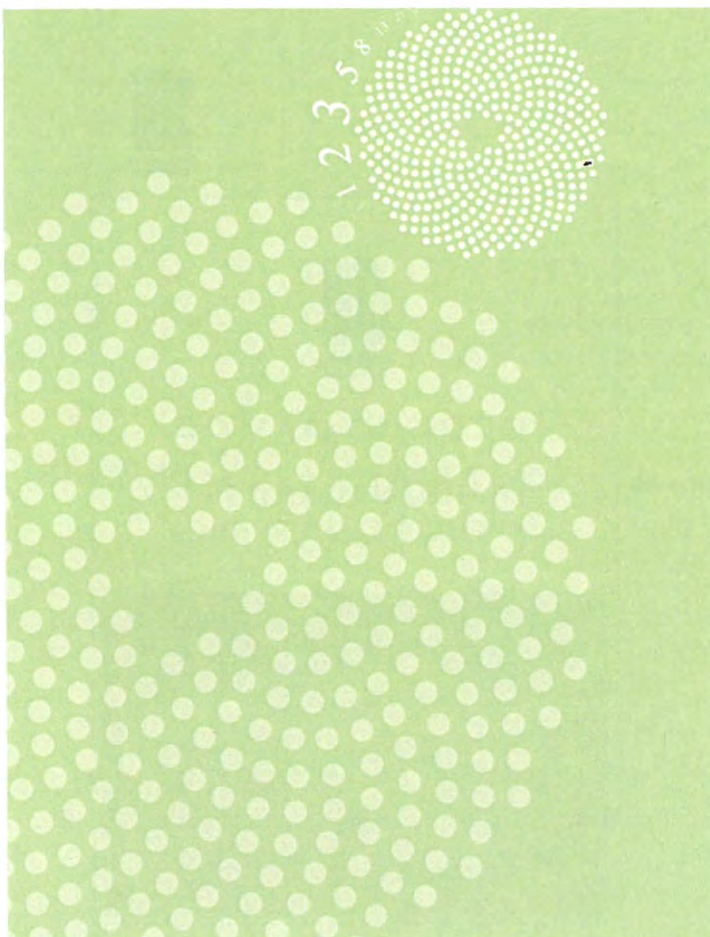
Multi-perspective – Your Partners' Perspective





Summary: Top 4 Key Recommendations:

- **Consistent:** From a strategic concept to action
- **Complete:** Integrating all fundamental business segments
- **Multi-perspective:** Seeing things with your partners' eyes
- **Focus:** Choosing an industry-native partner



Performance Management at European Airports

Donagh Cagney

ACI Airport Economics & Finance Conference
25 February 2015



→ The Work

§ The Context

- > What is Performance Management & airport-specific issues

§ The State of Play

- > Survey of airport performance management professionals
- > Subjective questions allowed inference as to what works and what does not

§ The Case Studies


 Aeroporto di Bologna


 AÉROPORTS DE PARIS


 daa

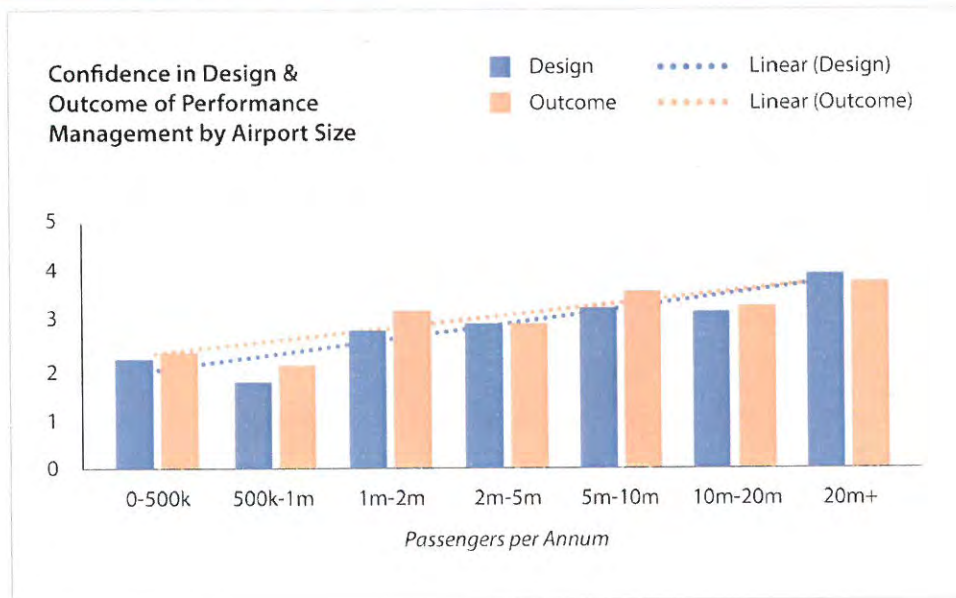

 Fraport

§ The Tools





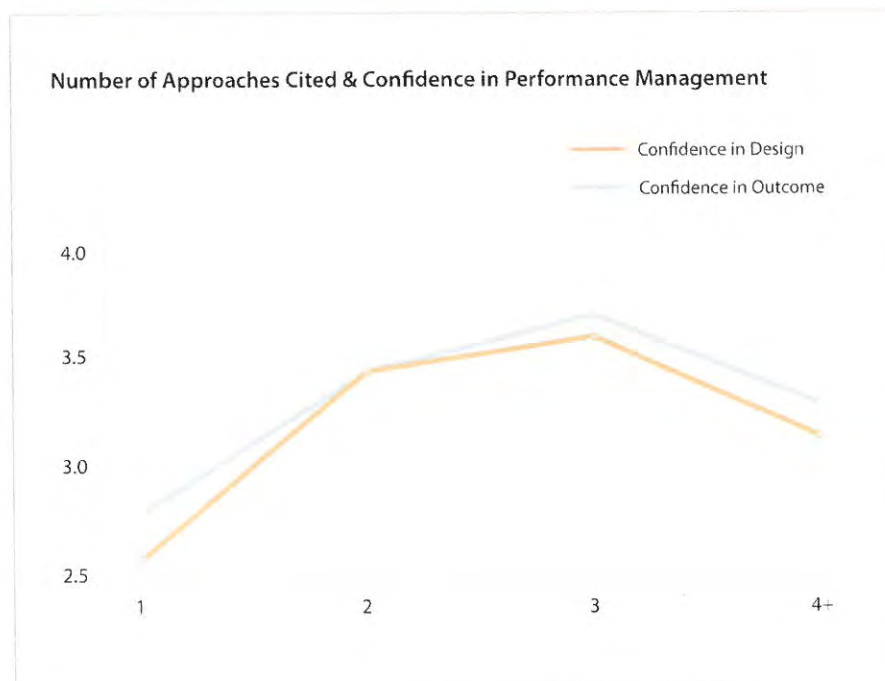
Size & Resources Matter



3

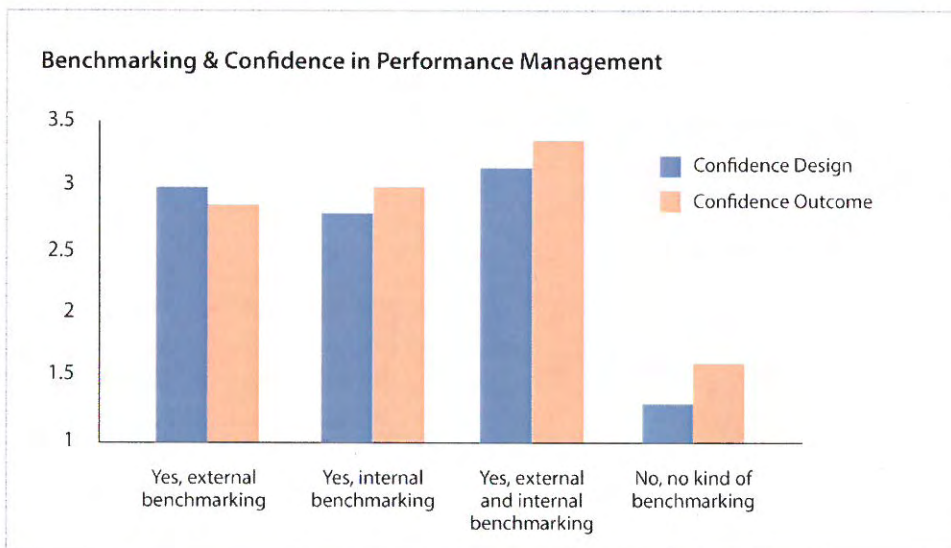


Keep it Focused



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→ It's Not Rocket Science



→ **THANK YOU**

www.aci-europe.org

www.airportcarbonaccreditation.org ←

Performance Measurement

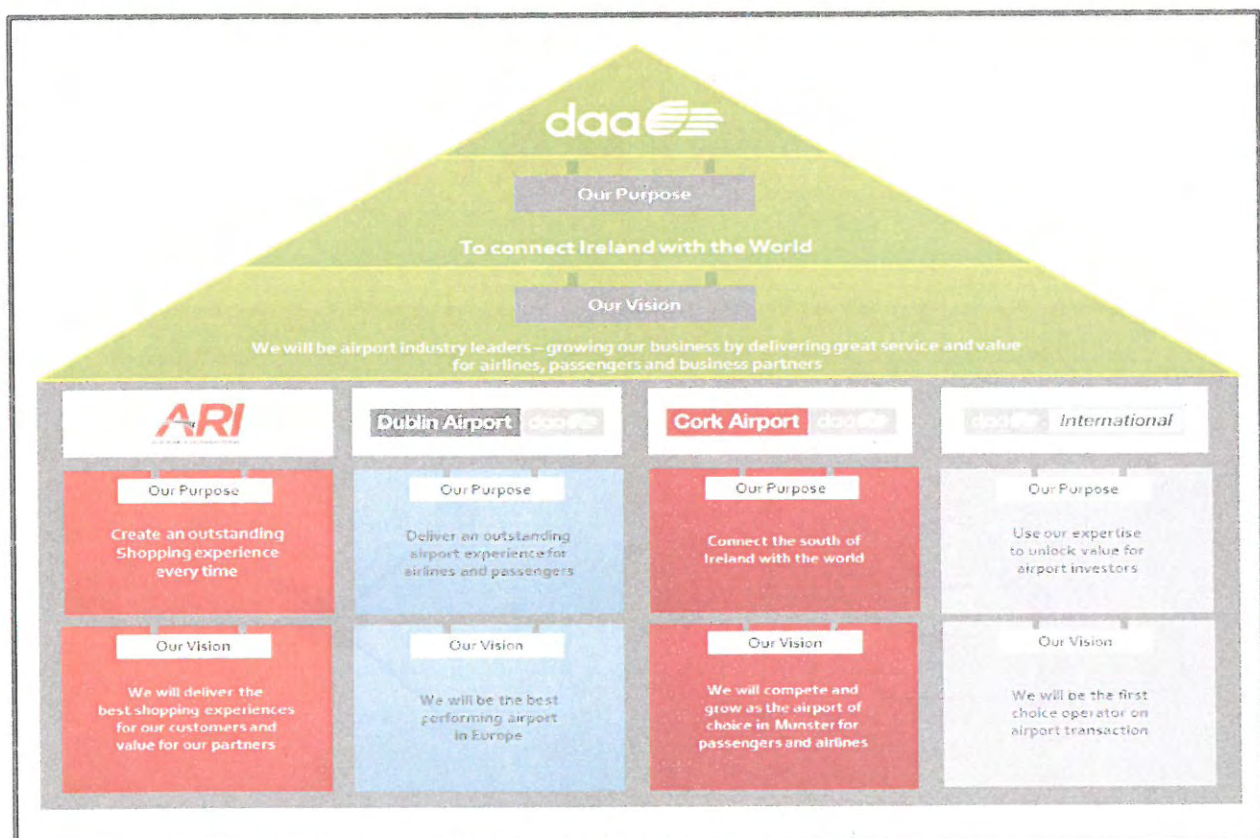
Why It's Key & What We've Learned

Miriam Ryan
Head of Strategy, daa

27th Feb 2015



Our Vision and Purpose



#1

TAKE THE LEAD FROM THE STRATEGY

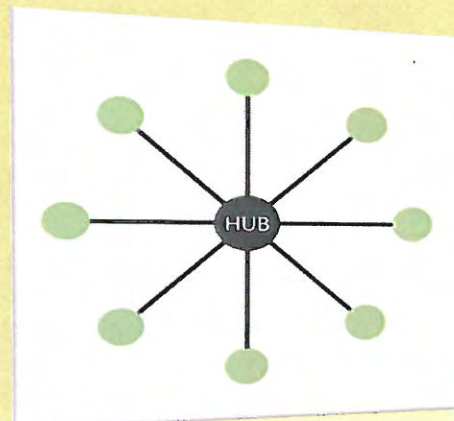
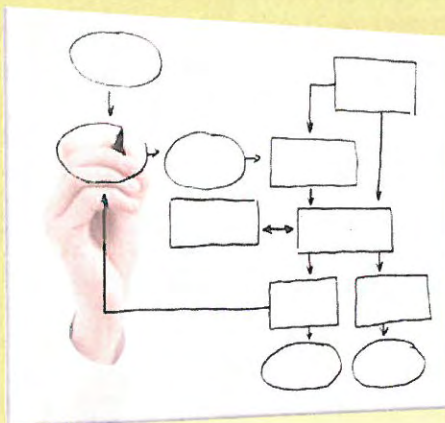


*Key performance indicators
should always tell us how we
are doing against our strategy –
otherwise they aren't key!*

#1

TAKE THE LEAD FROM THE STRATEGY

Taking the lead from our strategic goals in daa.....



#2

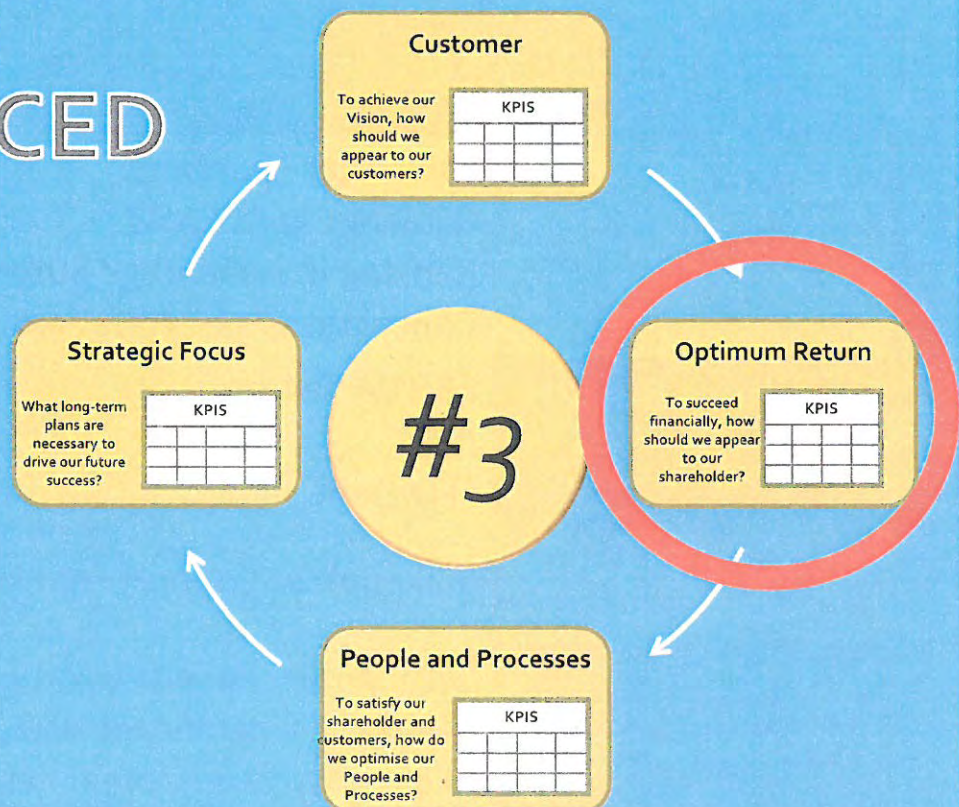
ALWAYS ASK HOW WOULD WE KNOW?

*Always easier to measure
the inputs.....*

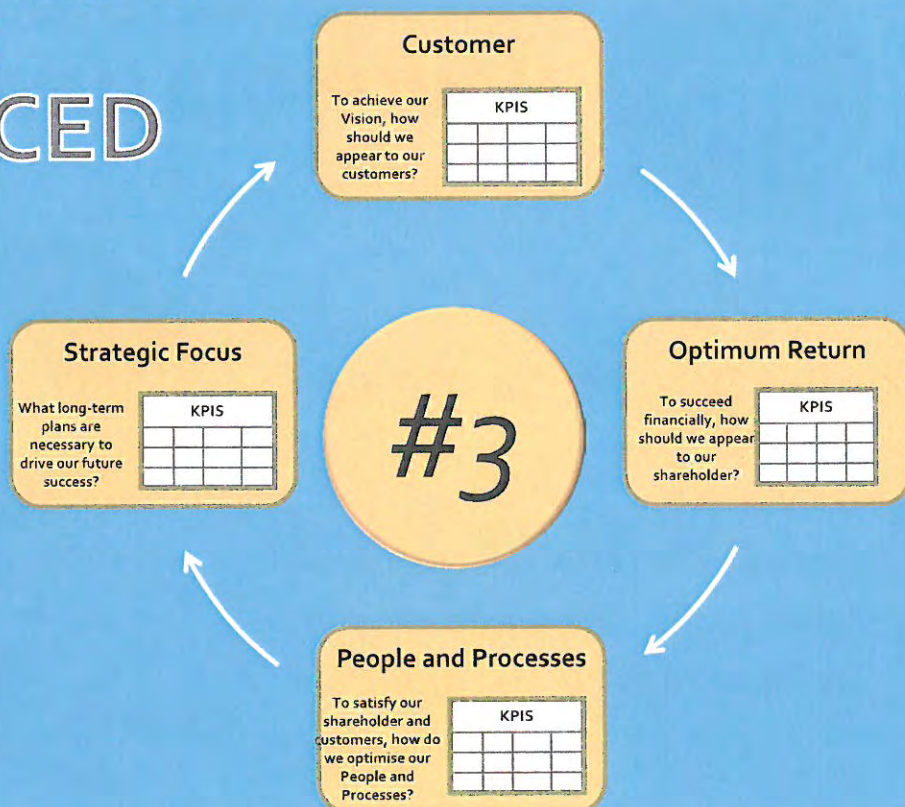
*Focus on the outputs –
how will we know we
have achieved our goal?*



ENSURE OUR KPIS ARE BALANCED



ENSURE OUR KPIS ARE BALANCED



ENSURE OUR KPIS ARE BALANCED

#3

Customer

Passenger Numbers
Rankings in ACI ASQ
Ranking in Advantage Survey
Concessions won/retained

Optimum Return

EBITDA Targets
RoE
FFO:Debt

Strategic Focus

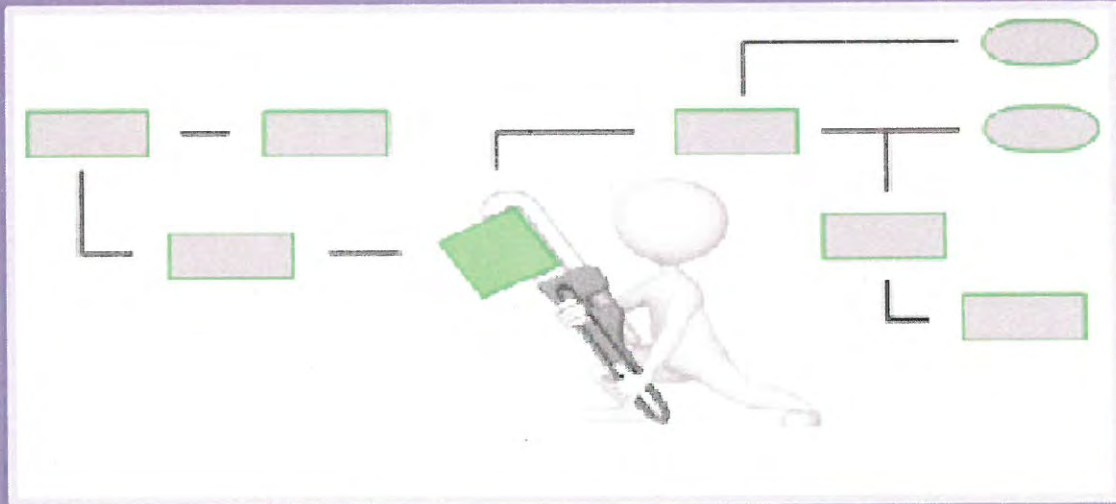
Stakeholder Support for Plans

People and Processes

Staff Survey Results v National Norms
Number of significant H&S, environmental or security issues/breaches

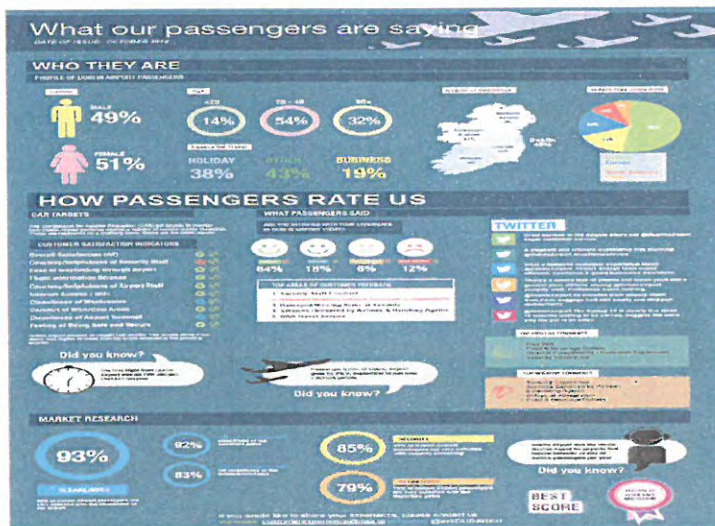
#4

MEASUREMENT IS USELESS WITHOUT ACTIVE MANAGEMENT



#5

COMMUNICATE PROGRESS & CELEBRATE SUCCESS



Brilliant at the essentials



Respecting each other's value



Passing the baton, not the buck



Always better

**Thanks for
Listening**

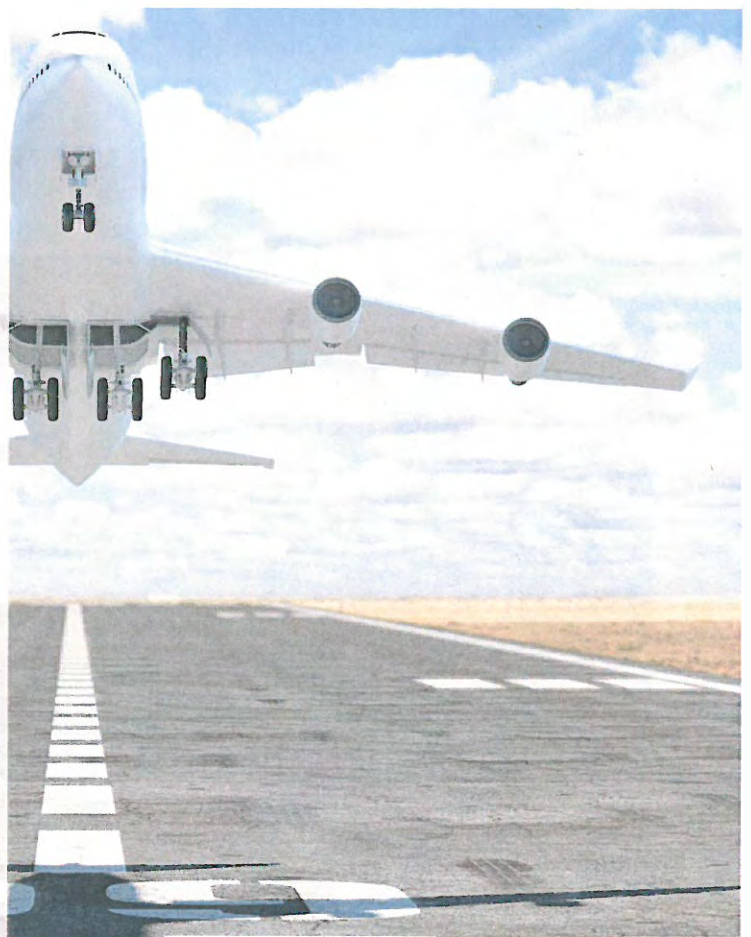


An overview of the airport industry in China

Qi Wu
President of Roland Berger Great China

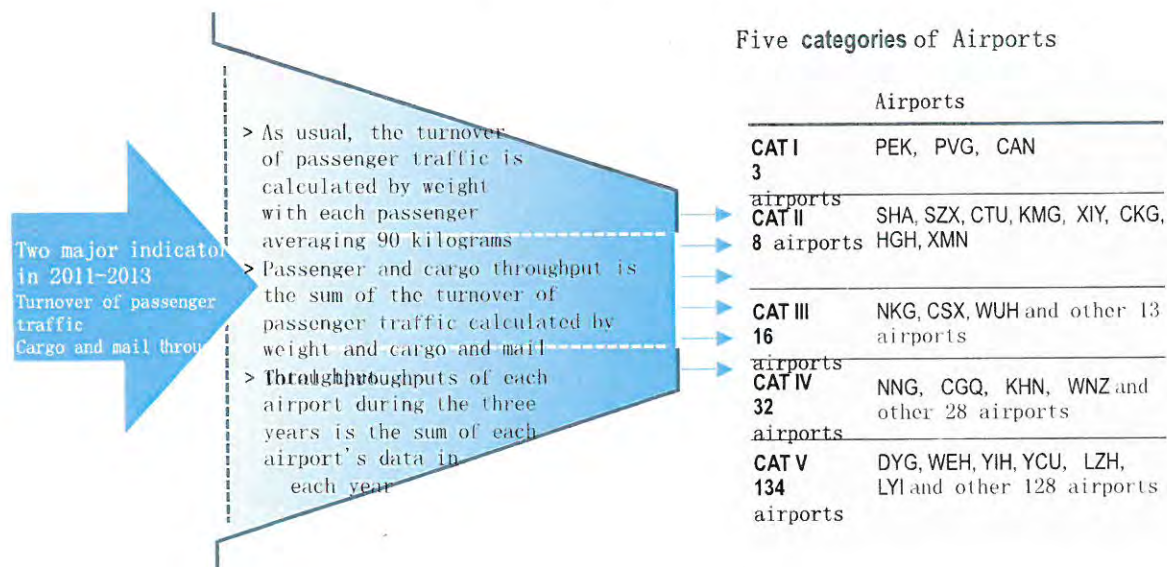
Roland Berger
Strategy Consultants

26th, Feb. 2015 London



Together with CCAA, Roland Berger has clustered the Chinese airports **into 5 categories** since 2011 in order to better compare the airports' performance

The Classification Standards Adopted by Roland Berger



Source: questionnaires of CCAA, Roland Berger

ACI Speech/02/25_F5 updated.pptx | 2

The Chinese airport industry is experiencing **strong growth, aggressive investment in new airports/expansion** and **heavy loss making** as the same time

Quantity and Quality



	2011	2012	2013
% of loss making airports	75%	73%	74%
Total losses ¹⁾ [Billion RMB]	1.7	2.9	2
Average Losses [million RMB]	12.59	21.64	14.29

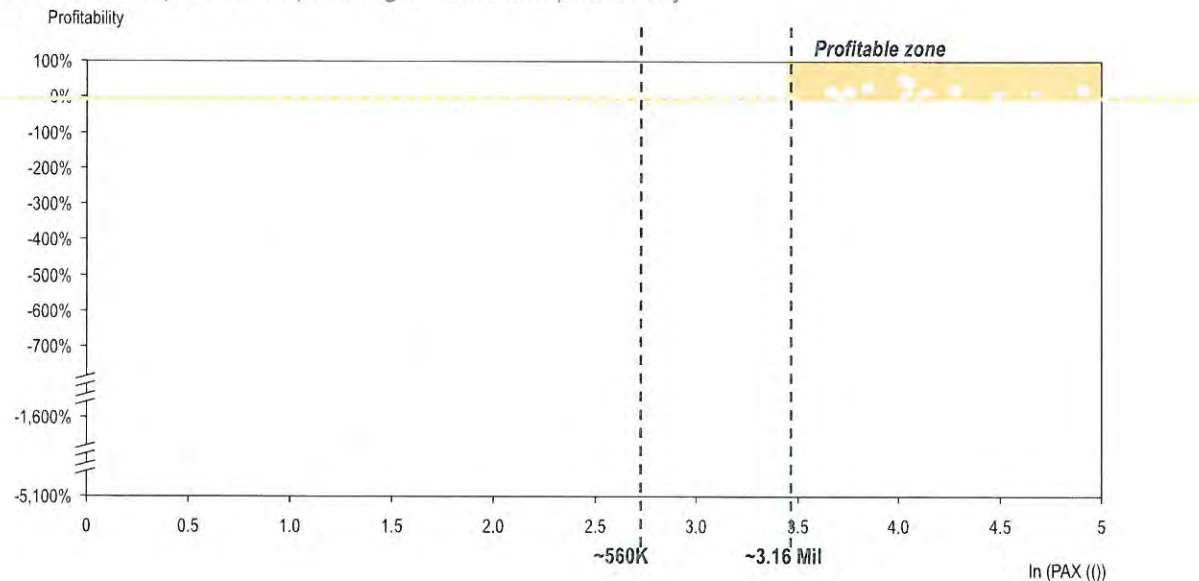
1) Data source: significant speeches and reports of Li Xiaoli, Director of CAAC. These data are approximations

Source: questionnaires of CCAA, public channels, Roland Berger

ACI Speech/02/25_F5 updated.pptx | 3

The analysis in 2012-2014 shown that **the break-even point** of Chinese airport was somewhere around **3.2 mil passengers**

Co-relationship between passenger traffic and profitability



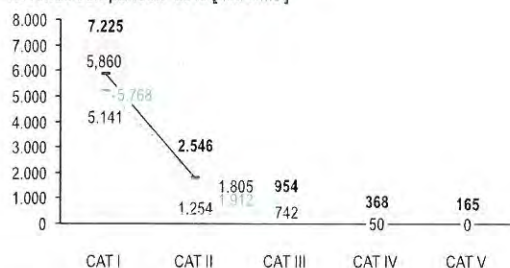
Source: CCAA survey, Roland Berger analysis

ACI Speech0225_P5 updated.rptx | 4

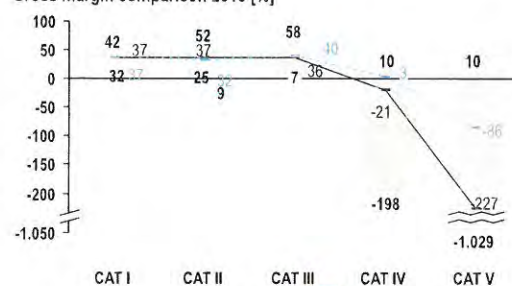
The **CAT I** airports still **outperform others**, but compare to last year, the overall performance of **second and third tier** airports has **improved significantly**

Performance comparison of the airports in different categories

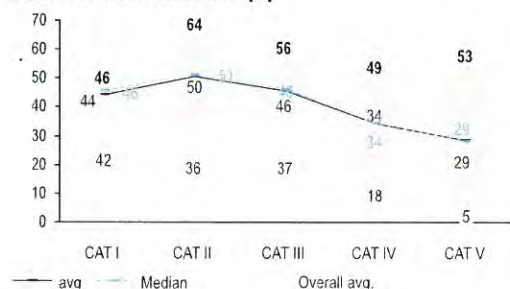
Revenue comparison 2013 [Mil. RMB]



Gross margin comparison 2013 [%]



% of non-aviation revenue 2013 [%]



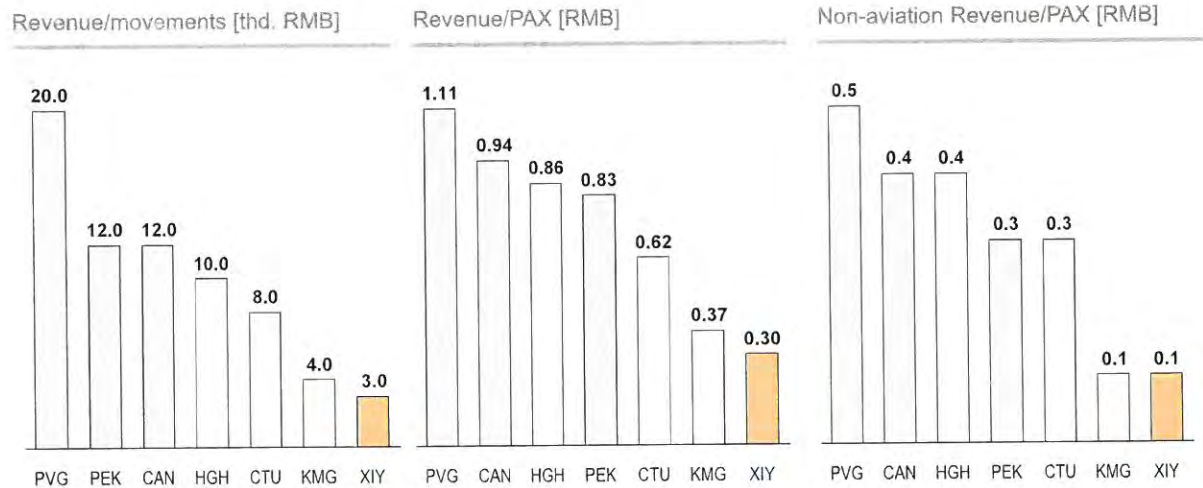
- > Overall result of the three hub airports in China (PEK, PVG, CAN) were clearly outperforming the rest of the categories
- > The revenue of the non-aviation business of China's airports grows notably, especially that of the airports of the second and third tiers
- > The variation of gross margin decreased significantly within category I, II and III.

Source: CCAA survey, Roland Berger analysis

ACI Speech0225_P5 updated.rptx | 5

The **passenger structure**, especially the proportion of the **international outbound** passengers, has been the key differentiation factor for CAT I airport in China

Benchmark of selected indicators - example



Source: CCAA survey, Roland Berger analysis

ACI Speech0225_P5 updated.pptx | 6

Some hypotheses of the Chinese airport industry in the future



Overview

- 1 Scale and Status: **Strong growth in no. of airport**
- 2 Gains and Losses: **loss making due to the nature of infrastructure**



Aviation Business

- 3 Three major hubs: **fighting for their positioning in Asia**
- 4 Airports in China's hinterland **do business with budget airlines**
- 5 Small and medium-sized airports: **need a new way of thinking and development approach**
- 6 General aviation business: **next growth engine**
- 7 **Digitalization of Airport services**
- 8 Freight business **risks in Central/Western China**



Non-aviation Business

- 9 Traditional non-aviation business **grows steadily**
- 10 Airport city/airport zone: **Hottest topics**



Let's think:
act!

Roland Berger
Strategy Consultants

www.pwc.co.uk

The Aviation Multiplier
ACI Conference
February 2015

pwc

Why is the aviation multiplier important?



A large and growing sector which attracts a lot of attention, particularly given how it drives (and is driven by) economic growth



Providers of capital from both the public and private sector need to maximise their returns



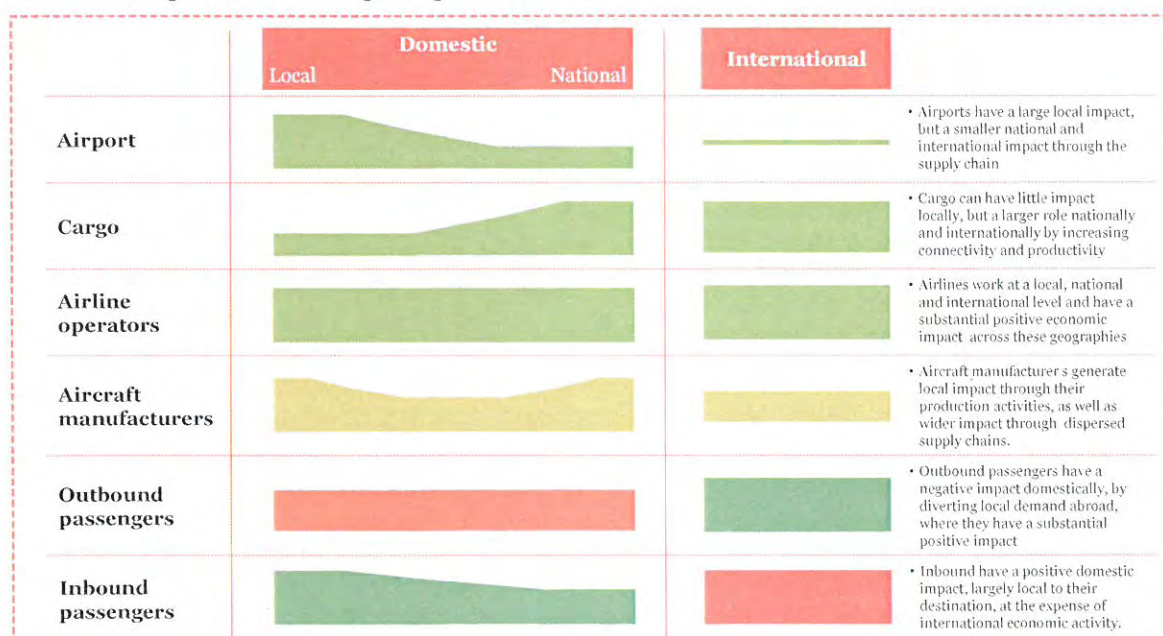
Contentious subject where the stakes are high



The sector can have transformational effects which makes rigorous assessment difficult

What is the aviation multiplier?

Aviation multipliers indicative spatial profiles



Aviation multipliers exist at different level and they can interact with each other

Examples of aviation multipliers from the UK

Multiplier	Metric	GDP	Welfare
A 10% increase in passenger numbers	Tourism: a 4% increase in tourist arrivals in the UK and around a 3% increase in UK tourists abroad	The combined effect of a 10% increase in passenger numbers could increase the short-term growth rate of GDP by 1%.	N/A
	Trade: a 1.7% increase in UK goods imports and a 3.3% increase in UK goods exports; and a 6.6% increase in UK imports of services and a 2.5% increase in UK exports of services		
£1bn spent on airport expansion	FDI: a 4.7% increase in UK FDI inflows and a 1.9% increase in UK FDI outflows.		
	Construction	£500m increase in GDP	N/A
	Productivity	£600m increase in GDP	£450m increase in welfare benefits
	Passenger flows	£100m increase in GDP	£80m increase in welfare benefits
	Flight frequency	£50m increase in GDP	£40m increase in welfare benefits

Estimates averaged from our analysis of various UK airports

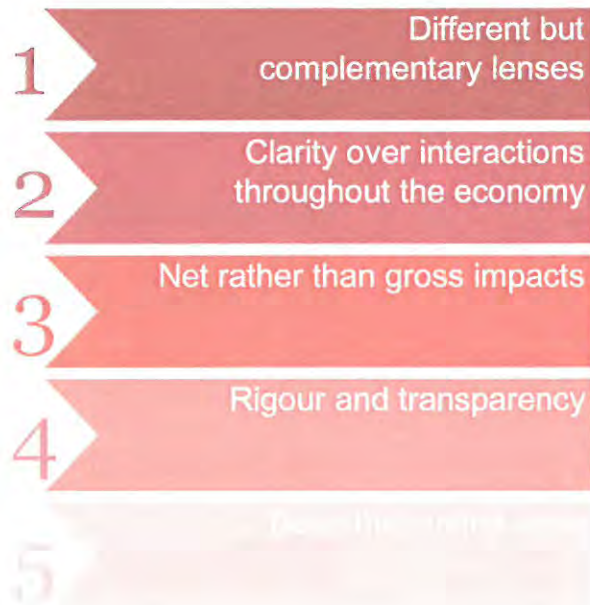
Indicative estimates

The Aviation Multiplier
PwC

February 2015
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Total Appraisal: Key properties for multipliers

- Need to understand how aviation affects both welfare and levels of economic activity (e.g. GDP and jobs)
- Aviation drives, and is driven by, many sectors of the economy. This makes it particularly important to explore context specific transmission mechanisms
- Need to focus on causality and additionality, use a clear counterfactual, and be explicit about the analysis perimeter
- Estimates will only have currency if they are understood and exposed to scrutiny
- Recognition that there is a need for new ways for appraising transformational projects and activities



The Aviation Multiplier
PwC

February 2015
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Thank you



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U.S. Airport Economic Impact and Air Travel Demand Elasticity

Liying Gu, ACI-NA



ACI World Economics and Finance Conference
London, UK
February 27, 2015

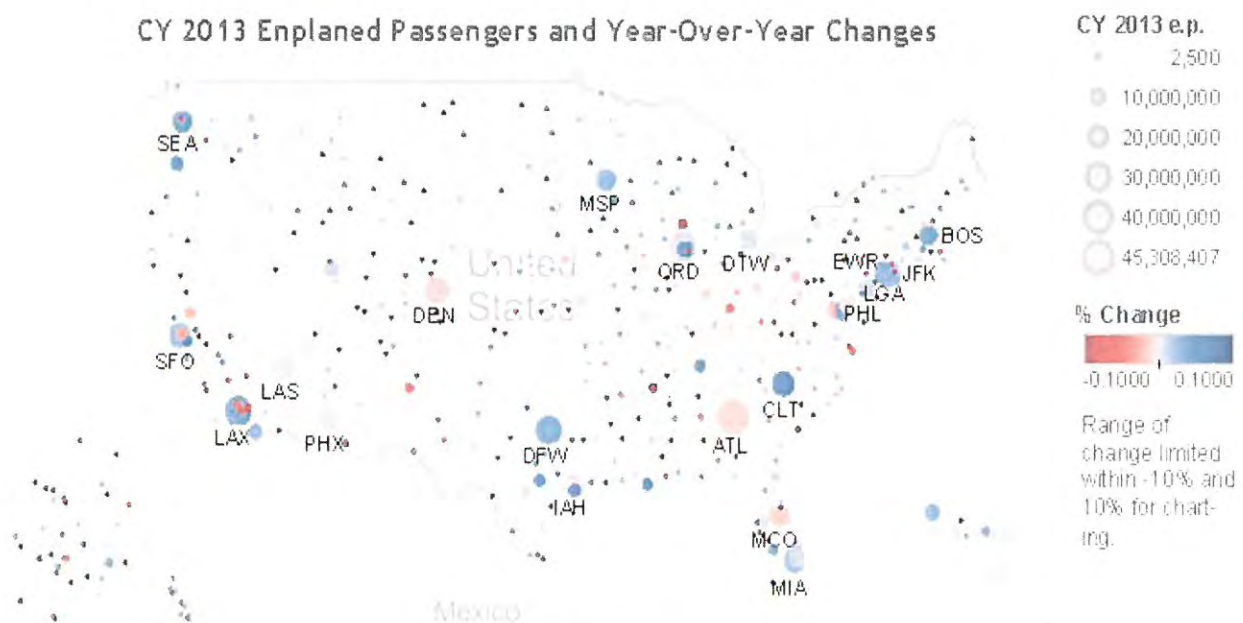
Key issues

- Economic Impact of U.S. Commercial Airports
- PFC Policy Debate and Air Travel Demand Elasticity

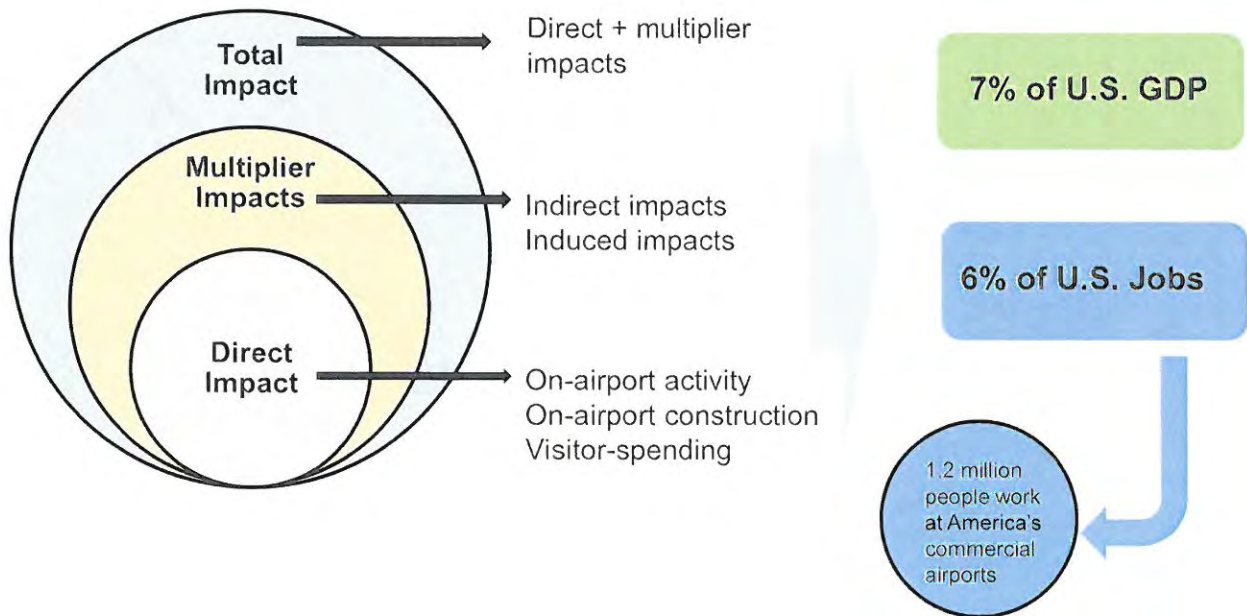
Large-hub airports are growing larger

- Top 30 airports accounted for 72% of national enplaned passengers in 2013

CY 2013 Enplaned Passengers and Year-Over-Year Changes



U.S. airports generate significant economic benefits



www.aci-na.org

4

Economic impact has increased dramatically from 2001 to 2013

		CY 2013	AAG
Jobs	43%	9.6M	3.0%
Payroll	88%	\$358B	5.4%
Output	124%	\$1.1TB	6.7%

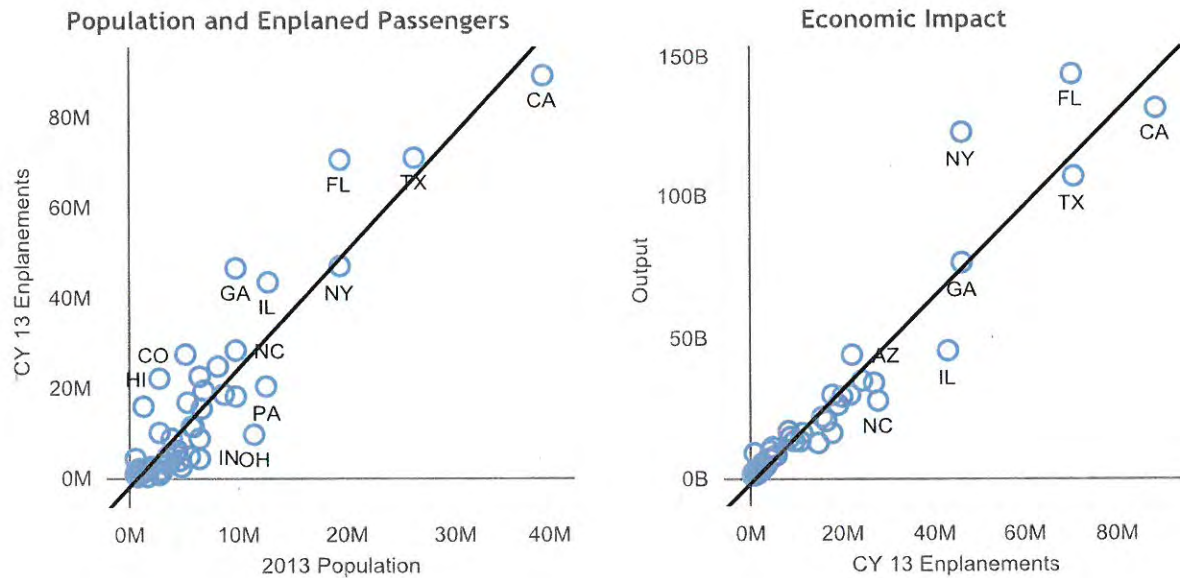
Average annual growth in jobs, payroll and output far exceeds inflation, which averaged 2.3% over the same period.

Source: 2001 ACI-NA "Economic Impact of U.S. Airports;" "Economic Impact of Commercial Airports in 2013," CDM Smith

www.aci-na.org

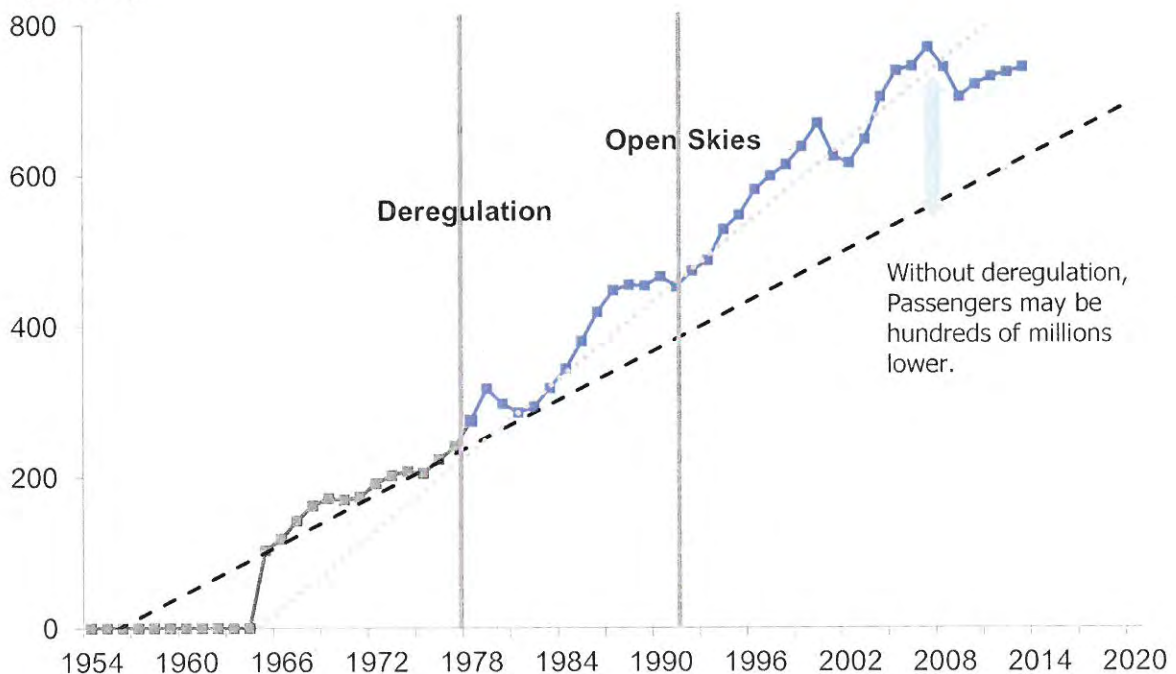
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Distribution of economic impact generally matches distribution of population



Government policy heavily influences industry growth

Revenue Enpax
(millions)



PFC policy debate in Washington DC

- PFC supporters
 - Seek a \$4.00 increase in the maximum PFC local user fee
 - PFC more flexible than AIP, pro-competitive, and most free-market mechanism to raise funding to finance airport CIP
- PFC opposers
 - Oppose increases in PFC
 - Want more airline influence over project decisions
 - Claim PFC increase will significantly reduce passenger travel

U.S. Airports generate the smallest share of aeronautical revenue from passenger charges

Average Regional International Pax Charge



Source: ACI World Compilation of ICAO and IATA data

General factors influencing demand elasticity

- Price elasticity = $\frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Price}}$
- Key considerations for air travel
 - Business vs. leisure passengers
 - Short-haul vs. long-haul travel
 - Inbound vs. outbound
 - Individual airline vs. market elasticity
 - Income elasticity

Demand is inelastic if PFC rate is increased nationally

<u>Elasticity</u>	<u>Travel</u>	<u>PFC</u>
>1.0 or <-1.0 Elastic	-1.7, if applied to a route	-1.0 to 1.25 if applied to one airport
-1.0 to 1.0 Inelastic	-0.65, if applied nationally	-0.65 if applied to all airports

What is happening in the real world?

HOT AIR ALERT

#AIRPORTSUNITED

THE HOT AIR

When the cost of air travel goes up, demand for air travel goes down.



SOURCE: Bureau of Transportation Statistics, U.S. Department of Transportation

CLEARING YOU FOR LANDING

While academic study of supply and demand would argue this hot air to be true, what's happening in real-life is so befuddling that some are choosing to simply ignore the reality.

Since 2009, airfares have increased more than 23 percent. At the same time, air travel has increased more than 7 percent. What's more, demand continues to climb even as bag fees and other add-on airline services have increased more than 99 percent – to more than \$11 billion annually – in the same time period.

**For comments or questions, please
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THE ECONOMIC IMPACT OF AVIATION

7th Annual Airport Economics & Finance Conference



WORLD BANK GROUP

Pierre Guislain

27 February 2015

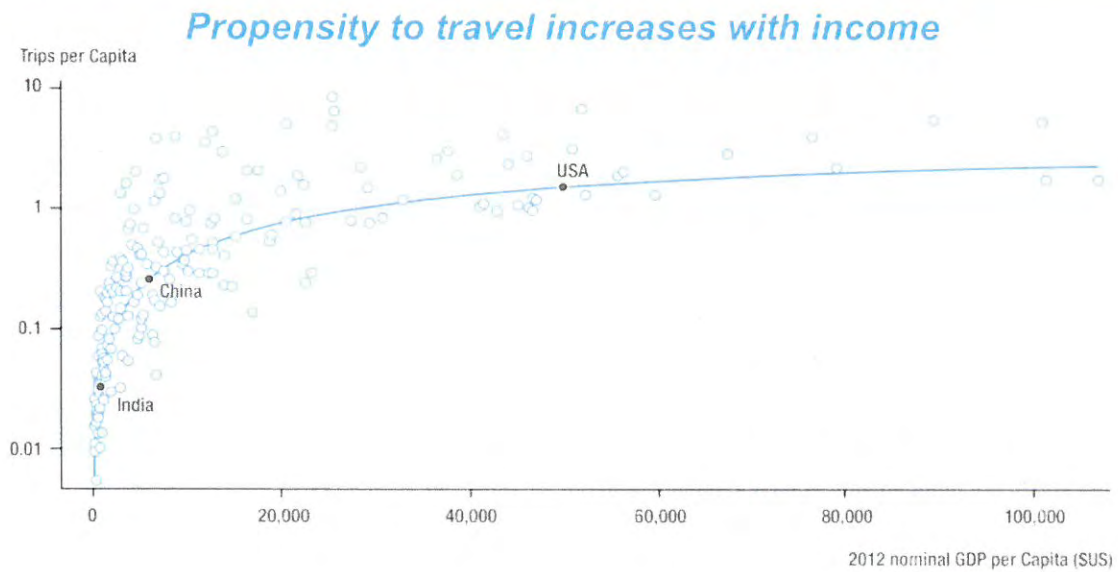
TRENDS IN AIR TRAVEL

Growth in worldwide air travel and business confidence



SOURCE: IATA, 2014

AIR TRAVEL AND INCOME



SOURCE: BOEING, 2014



TOURISM

FAST FACTS



Travel & tourism's total economic contribution in 2012

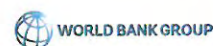


TOURISM

CASE STUDY: The Arrival of Virgin Samoa



The entry of Virgin Samoa has increased seat capacity and competition among airlines. It has also reduced costs and increased travel choices for travelers.



TRADE

FAST FACTS

35%

AIR TRANSPORT
CARRIES AROUND
35% OF WORLD
TRADE BY VALUE
AND ONLY 0.5% BY
VOLUME

49.2

MILLION TONNES
IF FREIGHT
HANDLED BY AIR IN
2012, IN 2013 49.8
MILLION TONNES

\$6.5

TRILLION
VALUE OF CARGO
HANDLED BY AIR IN
2012

HIGH VALUE, TIME
SENSITIVE
PROPORTION OF GLOBAL
TRADE TRANSPORTED BY
AIR



TRADE

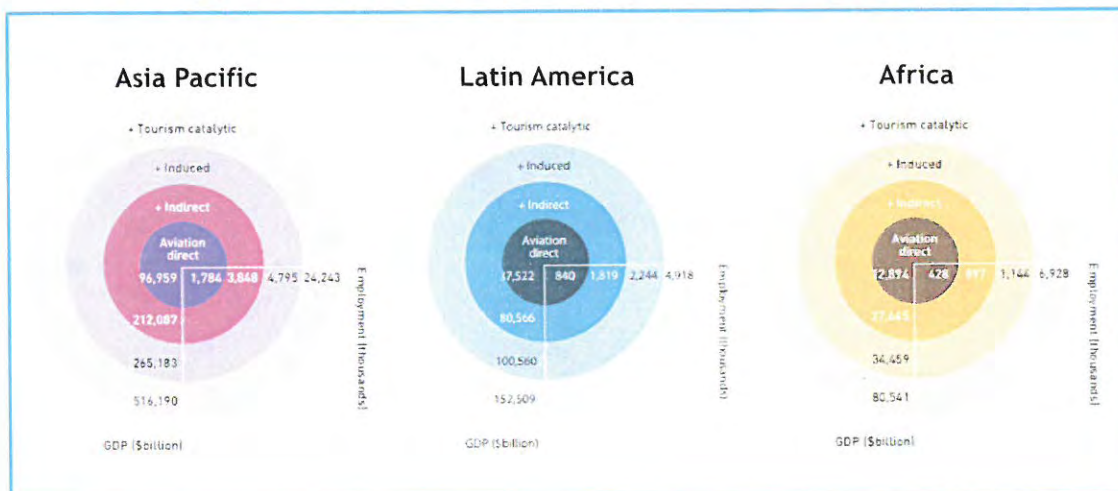
CASE STUDY: The Export of Processed Fish from Tanzania

- The center for Tanzanian fishing operations and processing is the city of Mwanza.
- The key logistics element for the timely export of the processed fish is air transportation.
- Mwanza Airport allows the use of medium-sized cargo aircraft that can transport the fish directly to destinations in Europe and the Far East (Japan, Australia) for distribution.



CATALYTIC IMPACT

The ripple effects of air transport in emerging regions



THANK YOU



Green Travel Retail

Green Travel Retail – the concept

Airport-Airline-Airport: three retailers offer a choice
new system will require three-party external clearing

