Input Cost Pass-Through: An Airline Perspective

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AirNeth Seminar, October 2013

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About the author – Jim Paton

- PwC – Senior Associate within Strategy and Policy in Energy, Water and Transport Practice,1997-2000
- easyJet – Business Consultant 2001-2003 and Head of Crew Resource Planning, 2003-2005
- Invenzyme - Independent Consultant, 2007-2009
- Spanair – Strategic Planning Director, 2010-2012
- Cranfield University – Senior Lecturer, 2012 onwards

Agenda

- Theory and Airline Practice
- Case Study: Spanair Fuel Cost
- Discussion

Theory and Airline Practice

Economic Theory

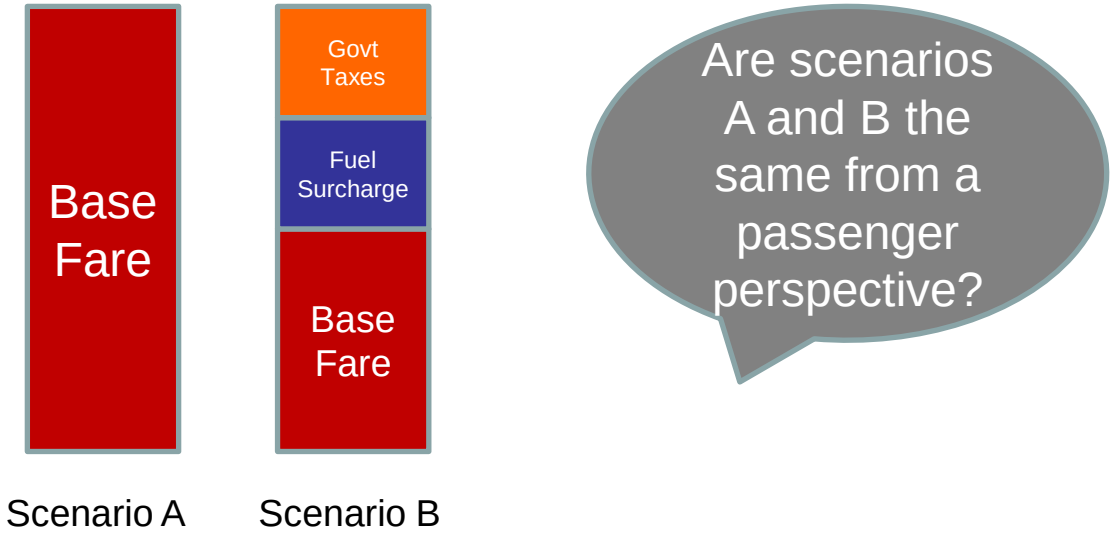
- Basic economic theory suggests that an increase in input costs will be passed on to consumers, at least in part
- In perfectly competitive markets, the supply curve shifts to the left as input prices increase, and the market equilibrium would shift to a higher price / lower quantity
- In the case of a tax, the extent to which burden is shared between producer and consumer depends on the relative elasticities of demand and supply
  - Could an unavoidable increase in fuel price be considered in the same way?

How likely is cost pass-through in practice?

- Airline short-run marginal costs are very low – perhaps only a few euros per passenger on short haul
  - Short-run supply curve is inelastic so airlines likely to bear more of fuel price hike as they seek to fill marginal seats
- Outcome depends on route-level competitive dynamic as airline industry is essentially oligopolistic at route level
  - Perfect competition assumption does not hold
- In fact, many airline executives believe unit ticket revenue is set by market forces which they can do little to influence
  - Especially true when facing low-cost carrier competition

There are differing views as to whether bundling matters…

- By unbundling certain charges, can passengers be persuaded (Jim said “duped”) into paying more without affecting underlying demand?
  - Arguably depends on extent to which consumers respond rationally or not and adjust behaviour over time…



- EC1008/2008 now requires bundling of non-optional items although some airlines may appear to have been not as quick as they might to adopt. *Jim gave an example here that might have competed against Spanair*

Fuel Prices Remained High 2011 to 2013

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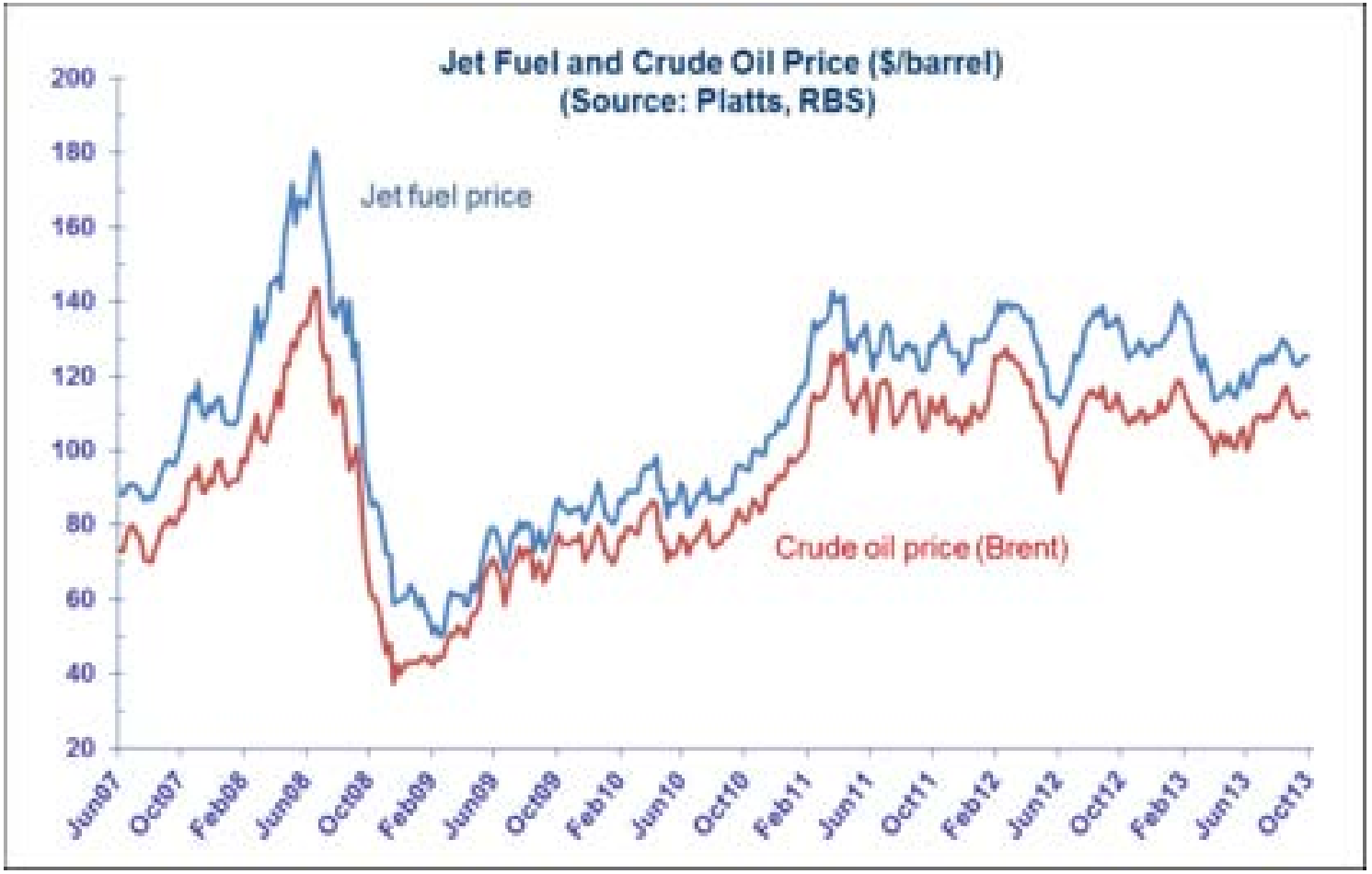

Source: Doganis, 2013

UK Air Passenger Duty form 1 April 2013

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Distance Band Miles from UK	Lowest Fare Class	Standard rate
0 – 2,000 Most of Europe	£ 13	£ 26
2,0001 – 4,000 e.g. US, Mid-East	£ 67	£ 134
4,001 – 6,000 e.g. India, Asia	£ 83	£ 166
Over 6,000	£ 94	£ 188

- Surely passengers will notice!!

Source: CAA, prepared by Doganis, 2013

BA Fuel Surcharges

- Tuesday, 8 February 2011, passengers to pay extra £12 per long haul sector - taking the surcharge to between £75 and £125 depending on flight length and class of travel.
- BA said the increase was the result of the rising cost of oil and jet fuel since the last rise in December.
- Short-haul flights are unaffected by the changes.
- But first-class travellers will see the cost go up by £17 per journey sector.
- Latest move
- BA last increased the fuel surcharge in December 2010 when it raised the cost by £10 per sector.
- The previous increase prior to December was in June 2008, after which it reduced the surcharge twice.

Source: BBC, Feb 4th 2011

Do consumers respond rationally when prices are unbundled?

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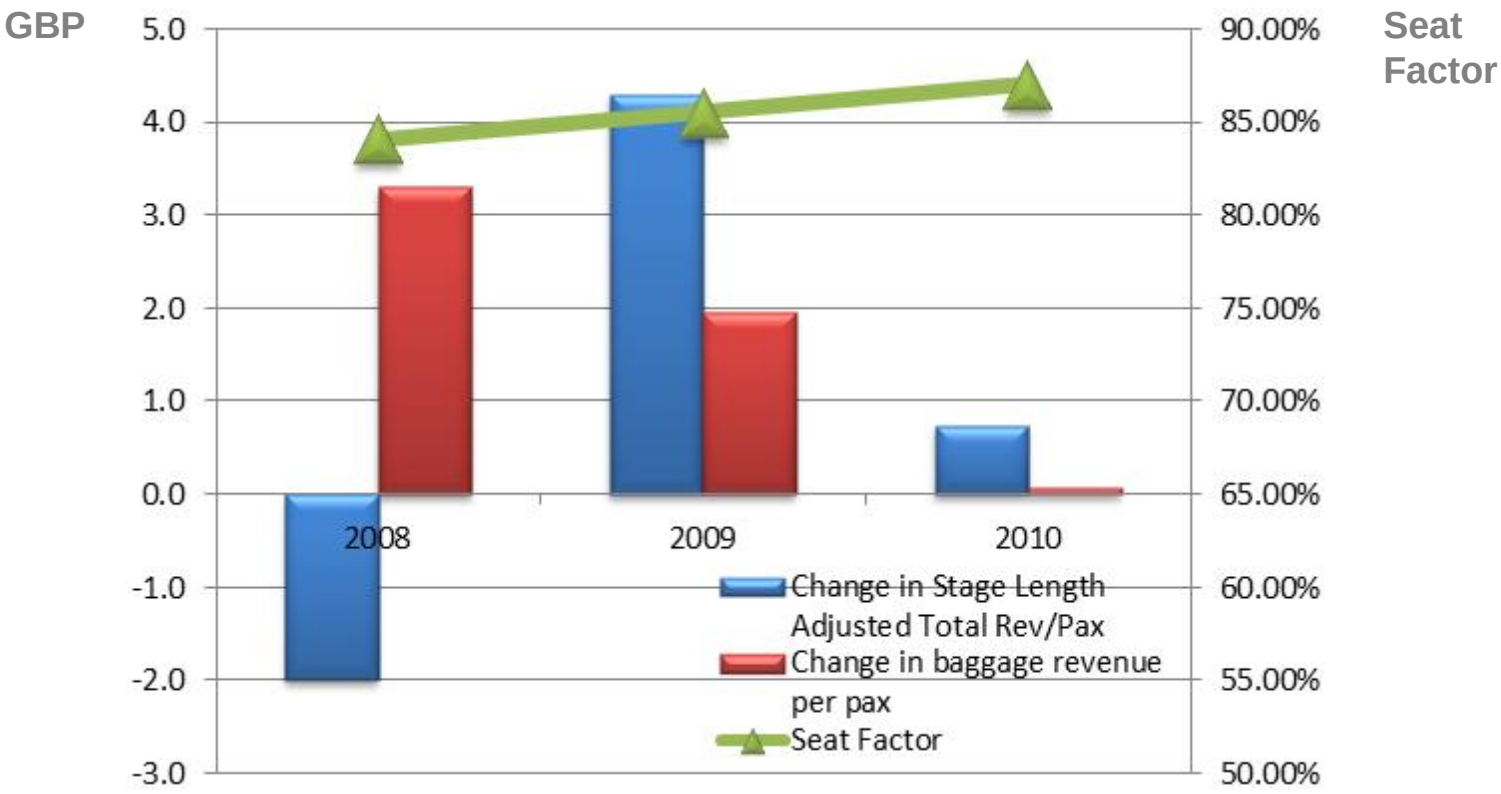
- Hard to measure effect as industry demand trends and revenue reporting may shroud any price elasticity effect
  - Economic growth, market shocks, untangling ancillary rev
- Individual airline practices are often driven more by deeply seated beliefs or trial and error than by science
  - E.g. view that markets set fares regardless of presentation
- Some examples
  - easyJet has never had a fuel surcharge
  - However, easyJet has also swung at least twice between bundling taxes and charges and unbundling them

Unbundling of optional items that used to be included provides further insight

- Some optional items used to be part of the all inclusive fare for many carriers
  - e.g. Hold baggage

- Could a carrier that kept the same fares and charged separately for luggage increase unit revenue per pax without experiencing a reduction in demand?
  - Or boost demand in return for a lower revenue per pax?

Bag charges may have enhanced easyJet total revenue per pax



Source: easyJet, author analysis

"As expected there has been some yield dilution at ticket price level but with 71% of passengers having checked baggage the net result is positive."

easyJet Annual Report 2008

So unbundling bag charges may work but the debate is complex

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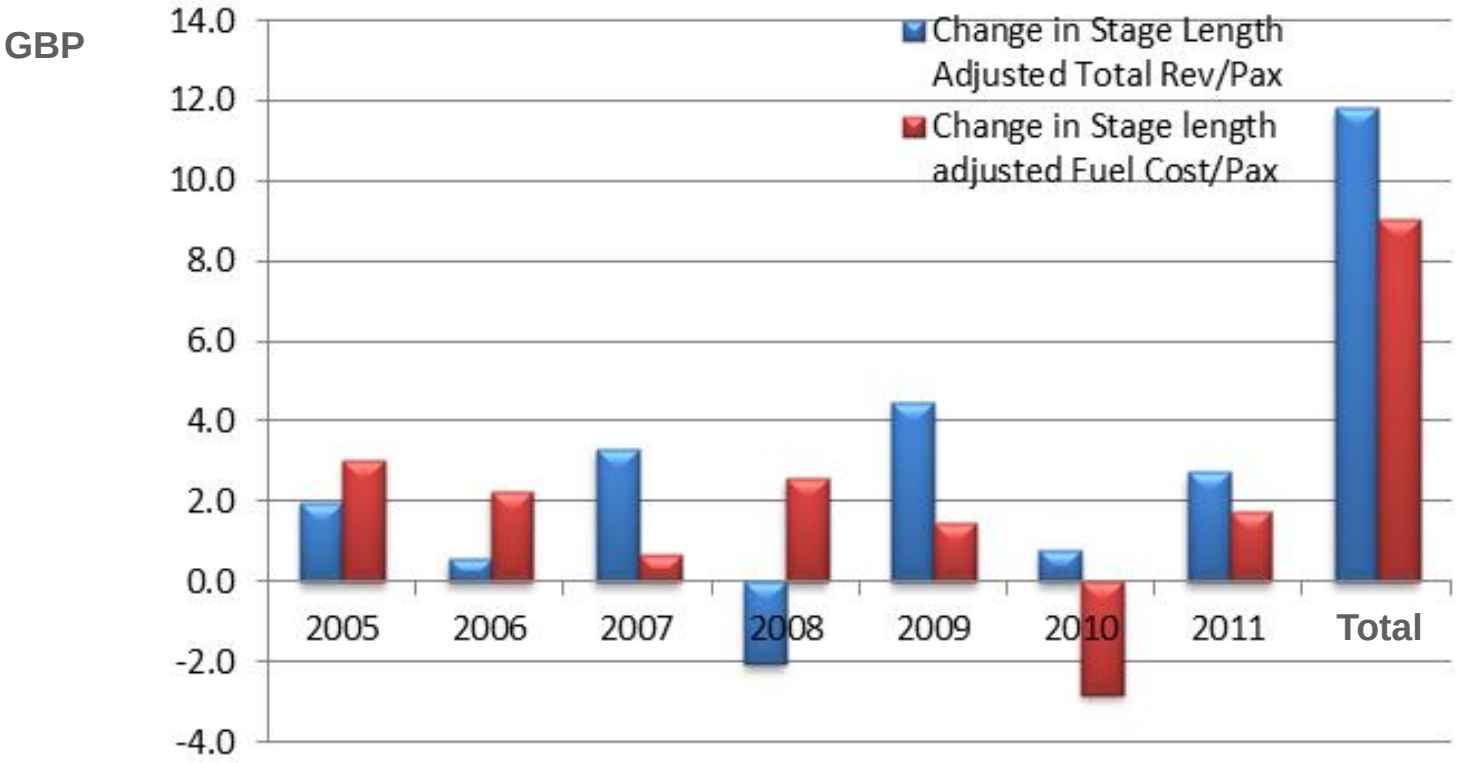
- Bag charges pioneered by flybe in 2005
  - Other airlines sceptical that this could improve revenue/pax
  - Some fearful of revenue dilution
- Ongoing pressure on fares and the cost benefits of fewer bags have encouraged more and more airlines to charge more for hold luggage, despite initial reservations
  - Although longer boarding times for pax with more trolleys in the cabin may reduce utilisation
- Baggage discounts are also now starting to appear
  - E.g. BA on short-haul, LX out of GVA
  - This approach has led to debates re potential for demand stimulation and cost reduction vs unit revenue dilution

Conversely, without a fuel surcharge easyJet has improved total rev/pax by more than the increase in fuel cost/pax



Source: easyJet accounts, author analysis

2005 to 2011 Change in Stage-Length Adjusted Rev/Pax: + £11.83
Change in Stage Length Adjusted Fuel Cost/Pax: + £9.02

Summary so far…

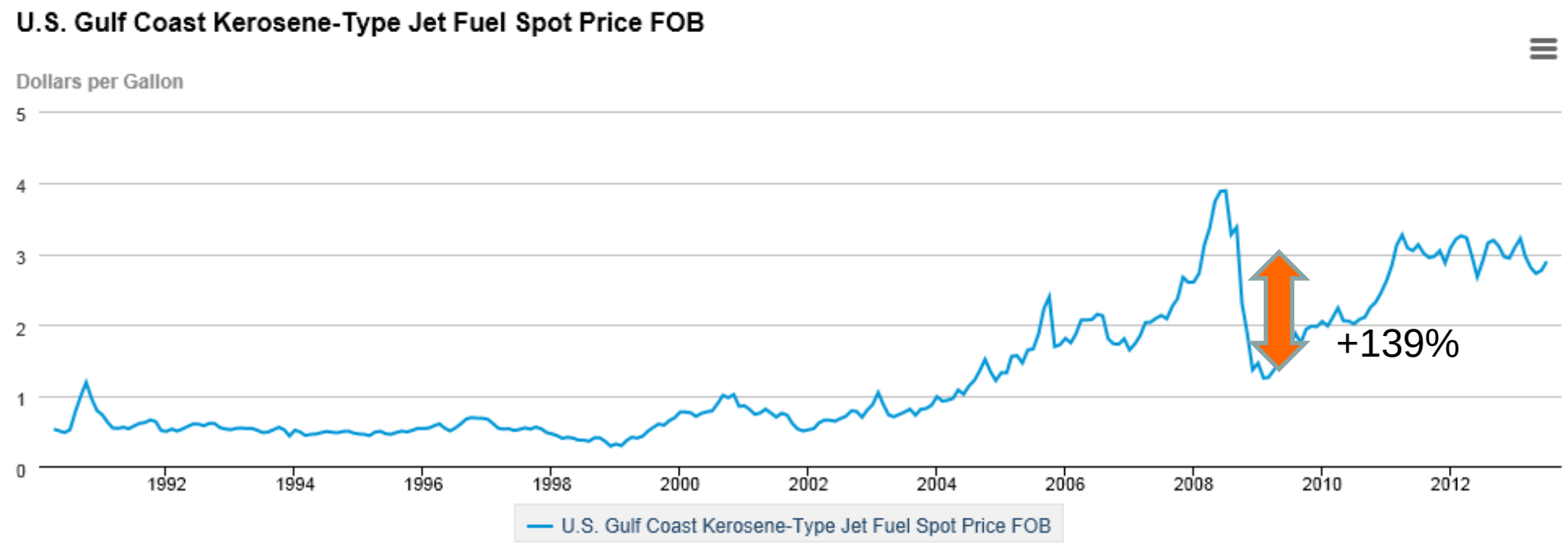
- Economic theory suggests some cost pass-through of input cost increases should occur
- Oligopolistic market structure and low airline marginal costs make this more challenging in practice
  - Most airlines would argue fares are market-led and individual airlines cannot influence fares up or down
- There is some (mostly anecdotal) evidence that pax may pay more overall when parts of the fare are unbundled
- But there is also evidence of airlines able to increase unit revenue as input costs have risen without unbundling
- Airlines adopt different charging and bundling approaches depending on their own beliefs and experience…

Case Study:
Spanair Fuel Cost

Short-haul case study: Spanair (JK)

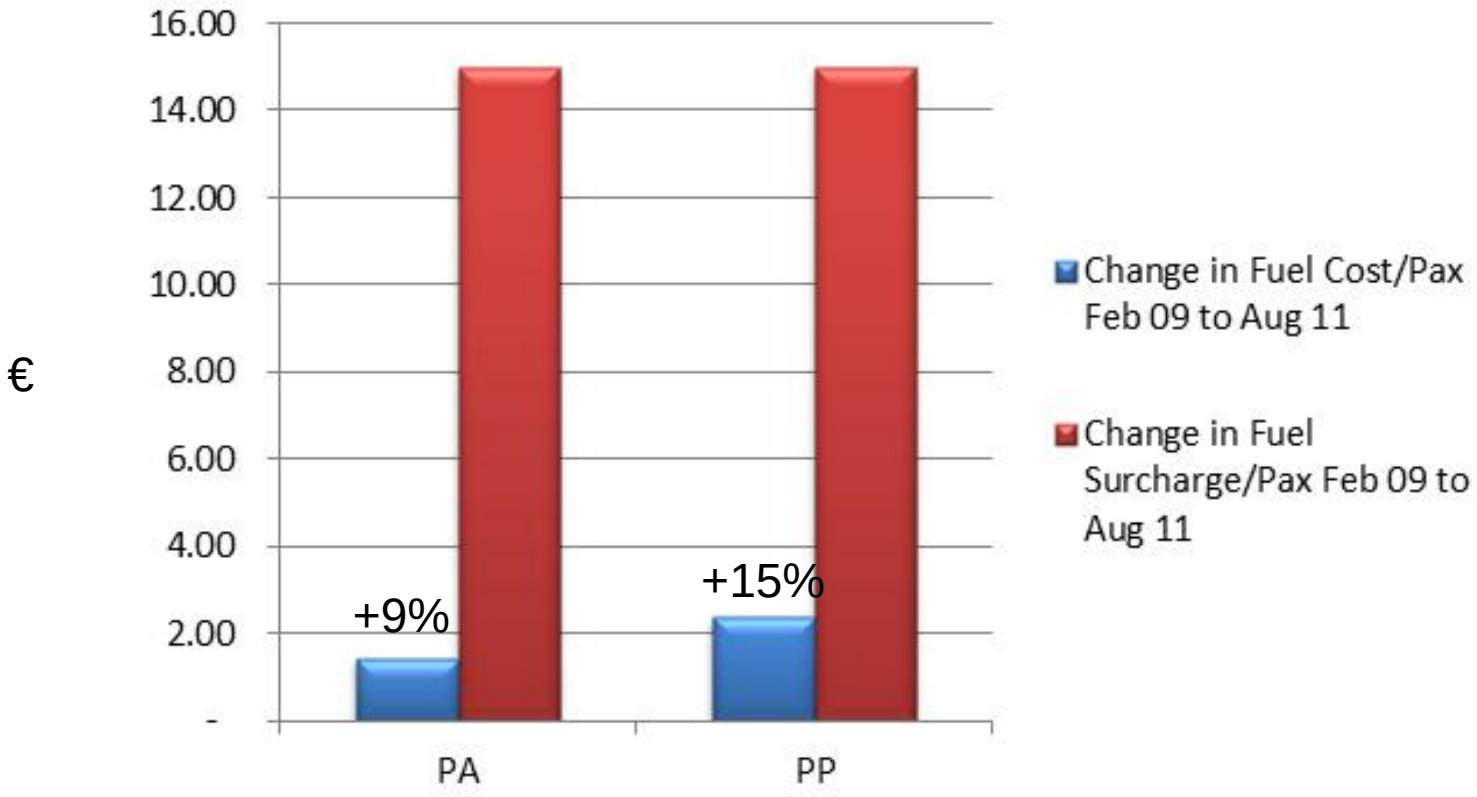
- We look at parallel development of:
  - Fuel cost per pax per sector
  - Fuel surcharge per pax per sector
  - Revenue per pax per sector (including any fuel surcharge)
    - Peninsular sub-network and selected individual routes
- Fuel surcharge on fare for domestic peninsula routes:
  - Reduced to €0 as of Feb 2009
  - Increased in several stages up to €15 as of Aug 2011

From Feb 2009 till Aug 2011 the spot price of jet fuel increased by 139%



THOMSON REUTERS

The actual increase in fuel cost per passenger was much lower than surchage



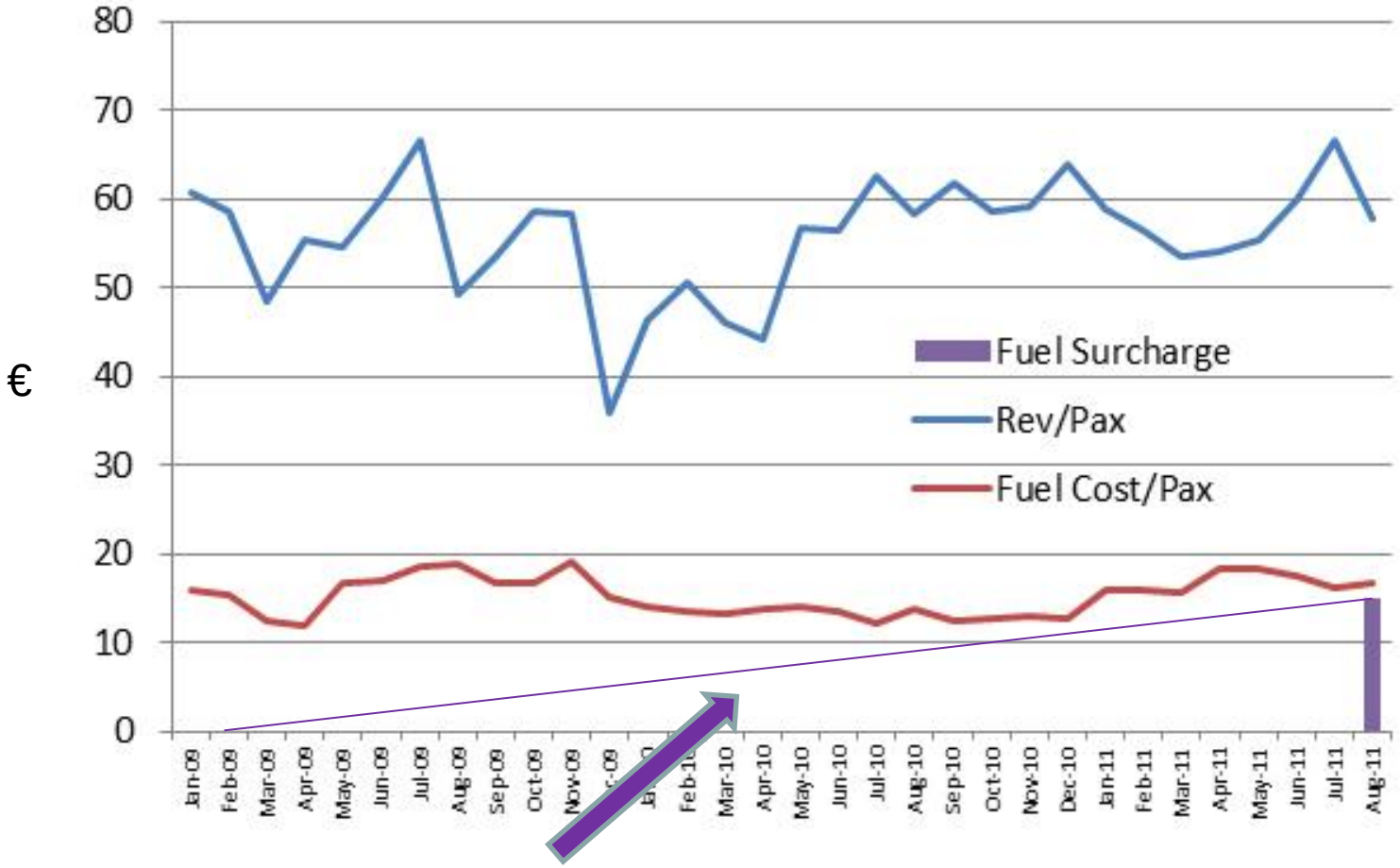
However, the absolute increase in fuel cost per pax under-states the reality

- On a Cost per ASK basis, the fuel component went up by a much greater amount
  - PA: 51% increase in fuel CASK vs 9% increase in cost/pax
- Higher load factors
  - PA: Up by 13 percentage points on a 6 month rolling basis
- Increase in average aircraft size
  - Retirement of 717 fleet and some MDs, also leading to a more fuel-efficient fleet overall

The actual value of fuel surcharges may be somewhat arbitrary

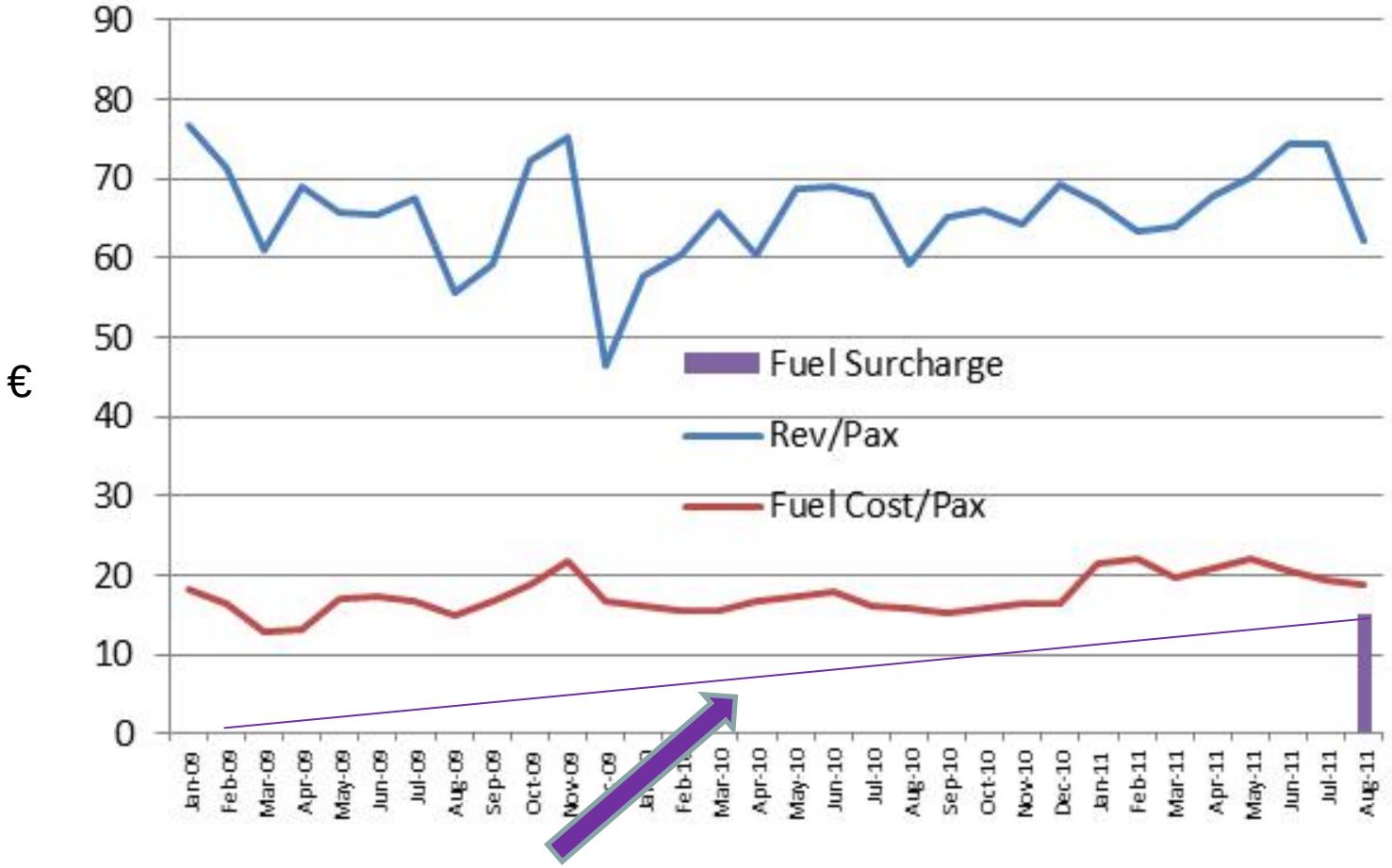
- In the above case the actual fuel surcharge far exceeded changes in the actual fuel cost on the routes concerned
- Is this good news for the airline in terms of being able to capture an increase in revenue per passenger that exceeds the increase in cost?
- Not necessarily…

Evolution of Rev/Pax, Fuel Cost per Pax and Fuel Surcharge on PA Route



N.B. Actual increase was not linear in practice

Evolution of Rev/Pax, Fuel Cost per Pax and Fuel Surcharge on PP Routes



N.B. Actual increase was not linear in practice

The relationship between revenue/pax and fuel cost is hard to establish

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- At sub-network level, Pearson correlation coefficient between the variables is positive, but not hugely so
  - PA: r = 0.098
  - PP: r = 0.397

- In fact, other factors are very likely to have played a part:
  - Competitive environment e.g. Ryanair entry, change in Vueling pricing tactics, Iberia fuel surcharge changes
  - Change in revenue management strategy
  - Capacity rationalisation and market recovery in 2011
  - Growth in ancillary revenue (no accurate route data exist)
  - Change in fuel cost allocation method in route accounts

Analysis of three PP routes with different competitive dynamics

- Barcelona – Malaga (AGP)
  - Vueling is market leader in terms of frequency and seats
  - Ryanair entry in late 2010
- Barcelona – Bilbao (BIO)
  - Vueling is only direct competitor and market leader in terms of capacity
- Barcelona – Valencia (VLC)
  - Air Nostrum is only competitor before exiting market in October 2011

Evolution of Rev/Pax, Fuel Cost per Pax and Fuel Surcharge on BCN-AGP

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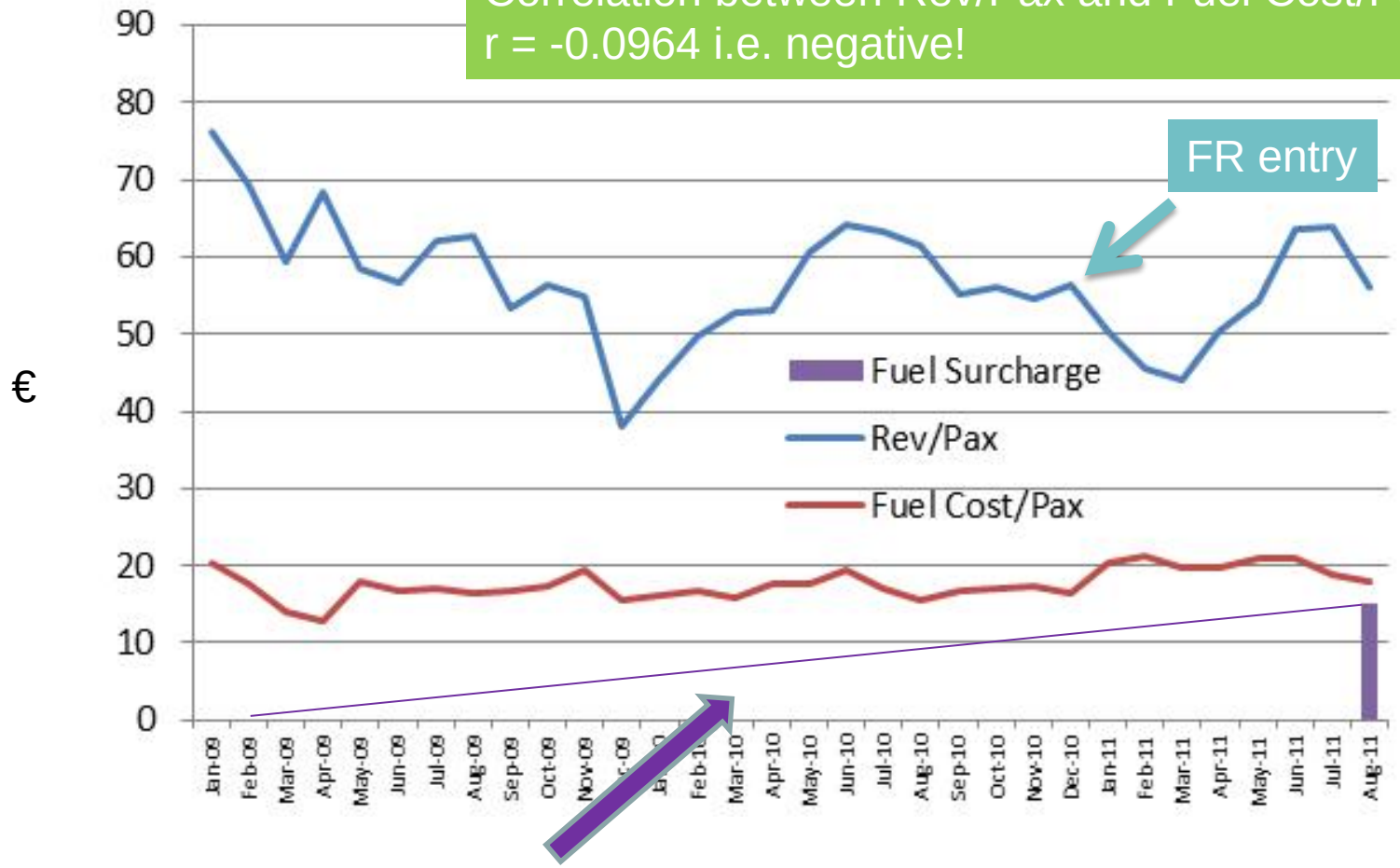
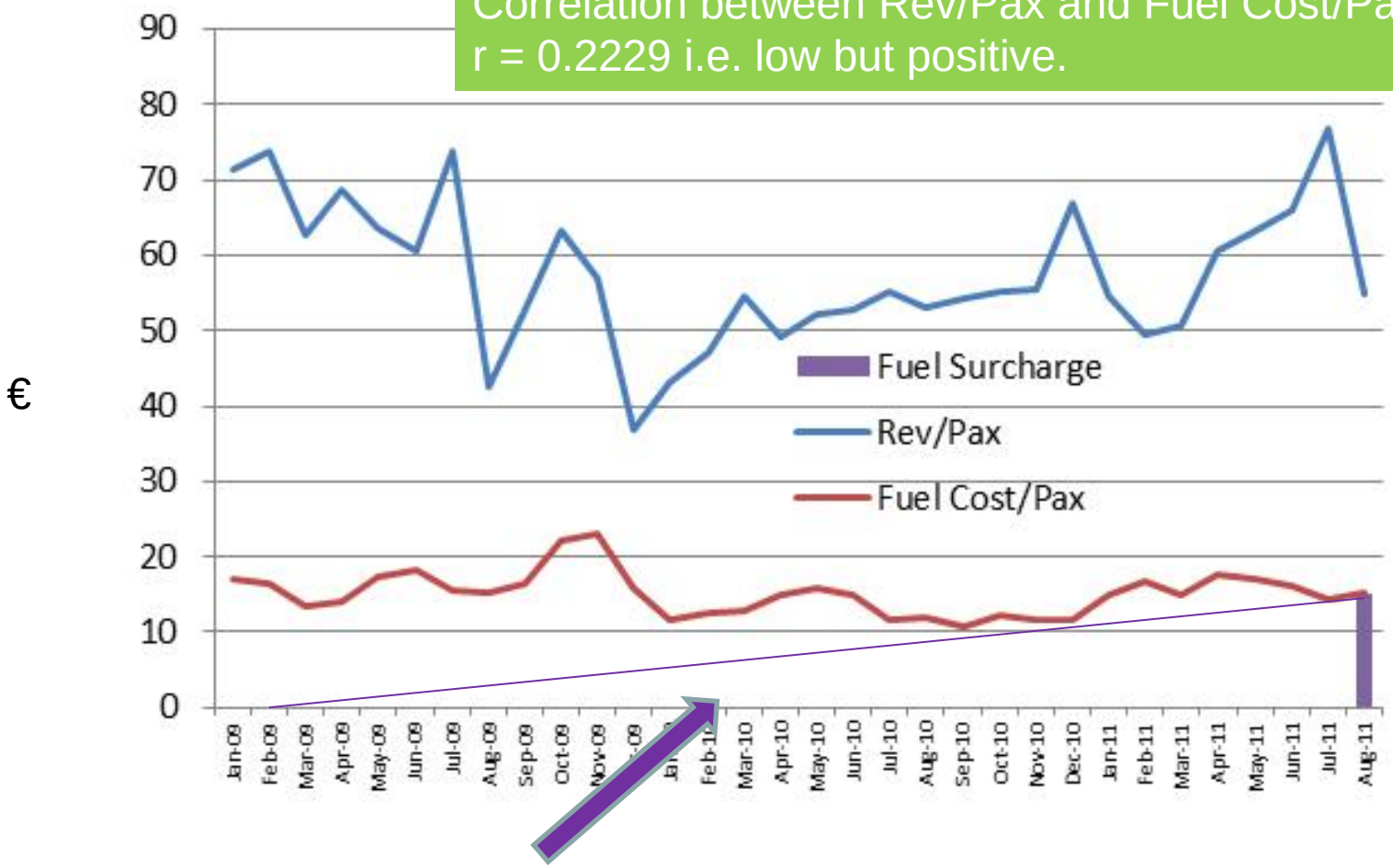
Correlation between Rev/Pax and Fuel Cost/Pax:
r = -0.0964 i.e. negative!



N.B. Actual increase was not linear in practice

Evolution of Rev/Pax, Fuel Cost per Pax and Fuel Surcharge on BCN-BIO

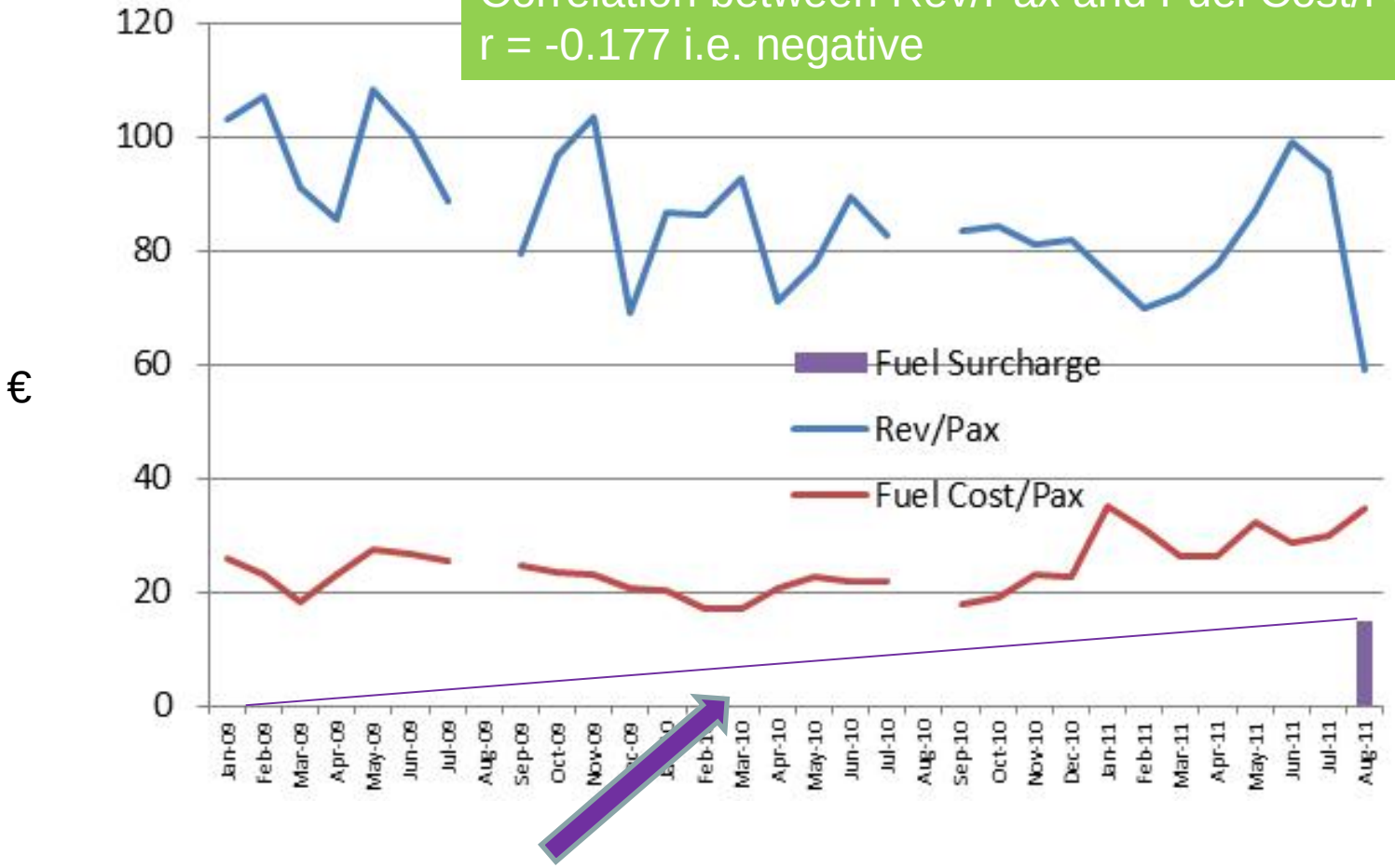
Correlation between Rev/Pax and Fuel Cost/Pax: r = 0.2229 i.e. low but positive.



N.B. Actual increase was not linear in practice

Evolution of Rev/Pax, Fuel Cost per Pax and Fuel Surcharge on BCN-VLC

Correlation between Rev/Pax and Fuel Cost/Pax: r = -0.177 i.e. negative



N.B. Actual increase was not linear in practice

There is no clear relationship between rev/pax, fuel surcharge and fuel cost/pax

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- Evidence suggests that fuel surcharge was competed away, which was the view of management at the time
  - To maintain volumes, fares and fuel surcharge were managed with a close eye on the competition
  - Any relationship with actual fuel price was fortuitous
- Looking at 12 month rolling trend data to remove seasonality also provides no evidence of a relationship
  - In all cases, revenue trend appears to be related to other demand and supply-side factors

Revenue and Fuel Cost per Passenger 12 month rolling average

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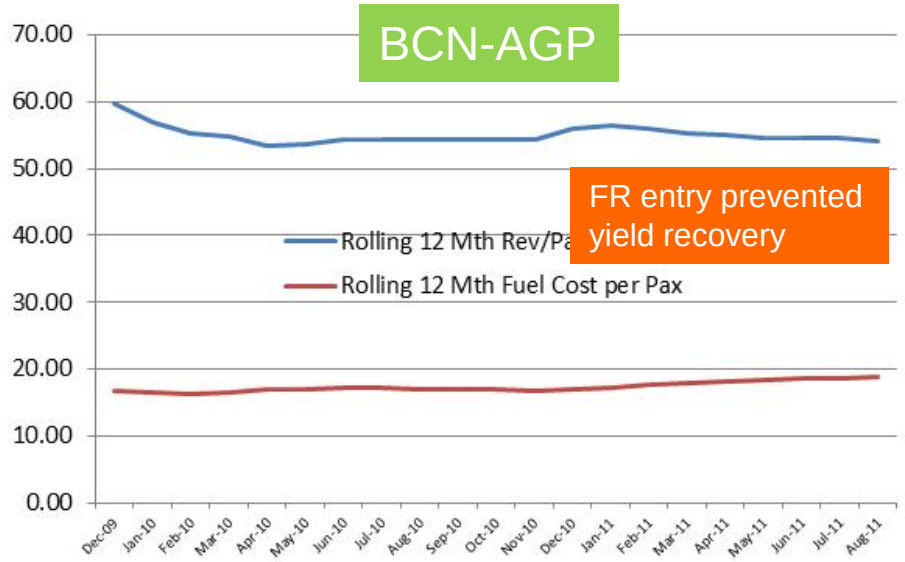

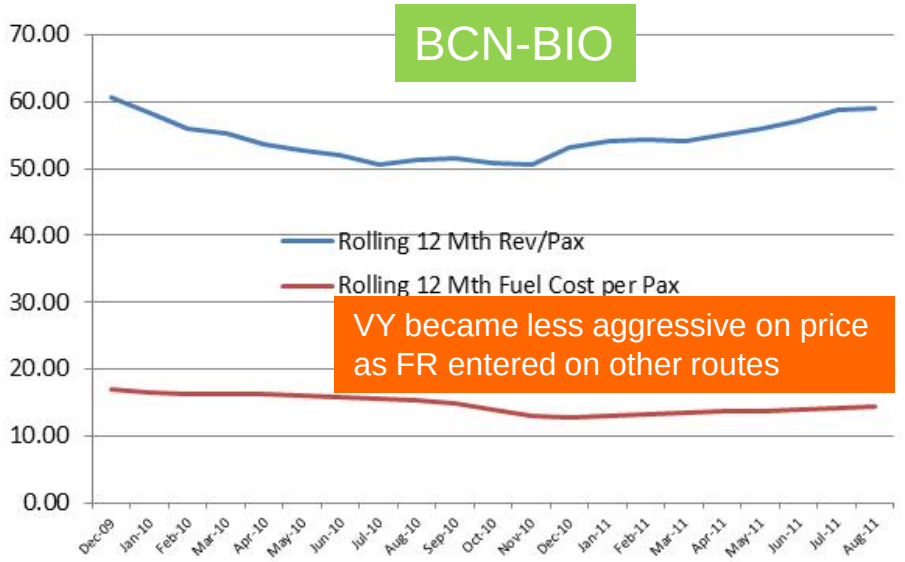

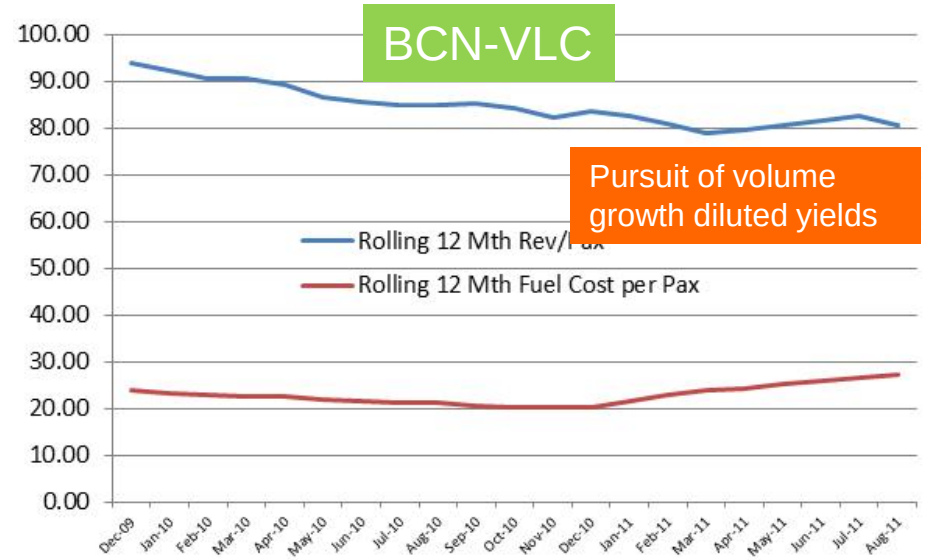

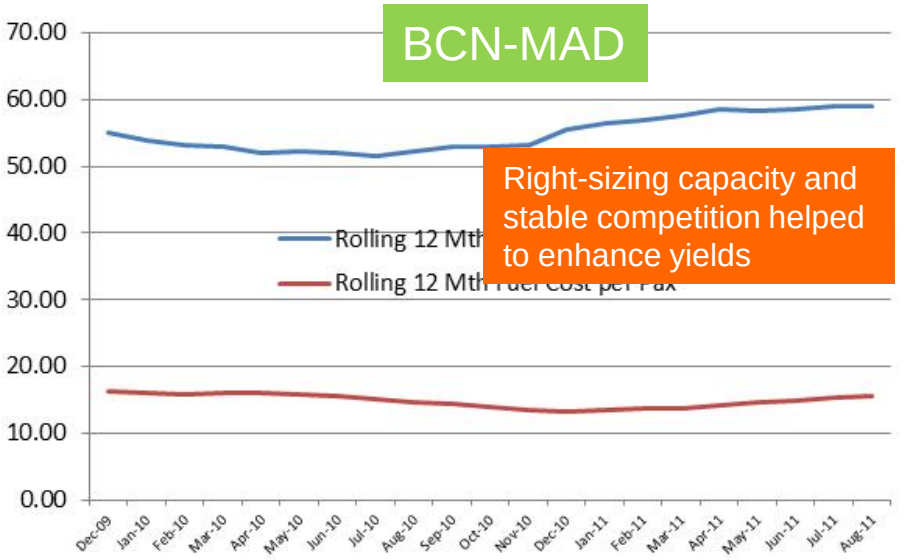

In conclusion…

- Analysis of part of Spanair's network does not support the view that an increase in input costs (in this case fuel) can be recaptured by the airline
- Despite fuel surcharge increasing from zero in Feb 2009 to €15/sector as of Aug 2011, average rev/pax exhibited varying trends depending on the route
  - Rev/pax flat vs 2009 in BIO and AGP routes
  - Rev/pax decreased in VLC and increased in MAD routes
- Competitive dynamics and capacity changes in these markets had a greater impact on revenue trends
  - Low or -ve correlation coefficient of fuel cost/pax vs rev/pax

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Or in my words…..

IT’S THE MARKET, STUPID!…


Discussion

But what about long-haul? The jury is out…

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- Consensus view in industry appears to be that some of the fuel surcharge increase in long-haul markets "sticks"
  - Evidence to suggest fuel surcharge rises with fuel price:
    - JK portfolio of prospective long-haul routes saw other airline fuel surcharge per pax rise by 23% between 11/2010-11/2011 vs 37% increase in oil price

- This could be explained by more inelastic demand, and/or lower competitive intensity i.e. no low-cost long-haul

- Findings of collusion against BA/VS suggest a payoff from coordinated increase of fuel surcharges in some markets