# Section 6

# AVIATION SECURITY OPERATING RESULTS AND COMPETITION ISSUES

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# 6 European aviation security operating results and competition issues

## 6.1 Summary

- This section examines the security related expenditure incurred, revenues generated and the operating results for the various stakeholders (States, airports and carriers) in the 18 States that took part in the study.

- Funding of security activities under the two models (centralised and decentralised) is analysed at the:

  - State level.
  - Airports level.
  - State and airports combined level.
  - Carrier level.

  This approach provides the basis for an assessment of whether any stakeholder has a competitive advantage or disadvantage from the prevailing security financing approach in a particular State.

- The analysis is based on responses received from States, airports and carriers to arrive at a full European estimate including all airports in the 18 States for 2002.

  - When revenues from the States and all airports are included, the combined revenue figure was estimated at €1.2bn in 2002 against expenditure of €2.0bn leading to an operating deficit of €0.8bn. This equates to a weighted average revenue of €1.45 per passenger generated across the 18 States in 2002, with a weighted average expenditure of €2.23 and an average deficit of €0.89 per passenger.

  - The total estimate for security related revenues generated by States, airports and carriers was circa €1.8bn in 2002. The estimated expenditure ranged between €2.5bn and €3.6bn in the period depending on whether cockpit door modifications and insurance are included in carrier costs. The expenditure range resulted in an operating deficit of between €0.7m and €1.8m.

  - Taken separately, analysis shows that the States generated more income in taxes on a per passenger basis (€1.08) than airports generated in charges (€0.75), and spent an average of €1.14 on security compared to airports at €1.52. This leads to States generating an operating deficit of €0.12 per passenger compared to an airport operating deficit of €0.83 per passenger.

- The airports under the decentralised model (where responsibility for key security activities rests with the airport operator or third party) appear to be at a disadvantage compared to airports under the centralised model (where the responsibility rests with the State). Airports under the decentralised model reported an average operating deficit of €1.22 per passenger, versus airports under the centralised model with an average deficit of €0.52.

  - Within both models there are variances between the States. The net airport position in some States produced a surplus whilst in others it resulted in a deficit. This also

occurs for State revenues and costs with some States posting a surplus and others a deficit. However, for States, there is little difference with broadly matching operating results under both models.

- Carriers that levy a specific security charge generated an average operating surplus of €0.30 per passenger. When those carriers that incurred costs but did not levy a security surcharge are included, a net deficit of €0.19 per passenger was reported. As with the States and airports, some carriers reported a surplus and others a deficit.

### State Level

- At the combined State level, the 18 States raised an estimated €585m in security taxes and spent €654m on security related activities (leading to a small deficit of €69m). The average security tax per passenger across the 18 States was €1.08 with the average security expenditure of €1.14 producing an operating deficit of €0.12 per passenger. The assumption is that any operating deficit was funded from general State taxes.

### Airport Level

- At the combined airport level in the 18 States, all airports raised an estimated €605m in security charges and spent €1,322m on security related activities, leading to an overall deficit of €717m (€0.83 per passenger) in 2002. The average airport security charge per passenger across the 18 States was €0.75 and the average expenditure was €1.52.

- The centralised model airports generated €0.64 per passenger against an expenditure of €1.10 leading to a total deficit of €251m or €0.52 per passenger. By contrast the decentralised model airports generated €0.90 per passenger against an expenditure of €2.07 leading to a total deficit of €466m or €1.22 per passenger, more than double the average centralised airport per passenger deficit.

- The main driver for the airport deficit under the decentralised model is that some major airports do not levy specific security charges (e.g. Copenhagen and BAA). Both Copenhagen and BAA's London airports (Heathrow, Gatwick and Stansted) are subject to economic regulation where security related expenditure is taken into account when setting the maximum level of charges. Whilst no specific security charges are levied, the regulatory pricing mechanisms take all expenditure into account when setting traffic charges. When BAA and Copenhagen are excluded, the decentralised deficit reduces by around €320m (from €466m to €146m) to €0.38 per passenger which is lower than the centralised average. This demonstrates the impact of lack of clarity in the security revenues actually received by airports as opposed to those charges specifically classified as security related.

### Combined State and Airport Level (Comparing Models)

- At the combined State and airport level in the 18 States, the States and all airports raised an estimated €1.2bn in security taxes and charges and spent €2.0bn on security related activities, leading to an overall deficit of €786m or €0.89 per passenger. The weighted average security tax and charge per passenger across the 18 States was €1.45 and the average security cost was €2.23.

- The 12 centralised States and airports generated 68% of income for the 18 States, and incurred 57% of the security related expenditure, whereas the 6 decentralised States generated 32% of the joint income but incurred 43% of the costs. The cost of providing

security on a weighted average per passenger basis is almost identical under both models. However, stakeholders under the centralised model generated 63% more income on a per passenger basis than stakeholders under the decentralised model (€1.74 versus €1.07).

**Carrier Level**

- Not all carriers levied a security surcharge in 2002. Of those carriers levying a surcharge, around €633m was generated against an expenditure of €571m, a net surplus of €62m (€0.30 per passenger).
- When all responding carriers' expenditure was included, expenditure increased to €677m, with income remaining at €633m to produce a €44m deficit (€0.19 per passenger).
- If cockpit doors and insurance are added to the carrier totals, the carrier operating deficit would increase significantly by up to €1bn as outlined in section 4. The expenditure on cockpit doors was largely incurred in 2002 and should be non-recurring. Likewise, the increases in general insurance premiums could be viewed as representing an increase in the cost of doing business for many industries, not just air carriers.
- The European airline industry had one of the most challenging years in its history in 2002 with significant financial losses incurred following the aftermath of 11 September 2001. Those carriers incurring additional security costs without generating income from security surcharges were particularly affected.
- The additional burden of cockpit door modifications and particularly large increases to insurance costs contributed to the financial pressures on carriers. Other factors including reductions in passenger numbers, reduced airfares, and the collapse of premium business traffic also contributed to the negative financial performance of many of Europe's carriers in 2002.
- For a selection of carriers, the reported aviation security operating position was compared with their financial results to examine the relationship between carrier profitability and the levying of surcharges. During 2002, from the available sample, 8 carriers reported a total operating profit from operations with 4 reporting an operating loss. When compared to their respective security operating results, 7 of the 8 profitable carriers levied security surcharges during 2002. For the 4 unprofitable carriers, 2 levied surcharges and 2 did not.
- It would appear that carriers posting operating losses in 2002 were to some extent impacted by their negative position from the financing of additional security costs.
- It would also appear that those carriers posting operating profits during the same period also recorded a surplus position from surcharge revenues financing security related expenditure in 2002.

**Competition Issues**

- To assess the potential impact of any competitive implications of the respective approaches to the financing of aviation security, a number of funding aspects have been

examined:

- Do specific State aviation security taxes and airport security charges meet the costs of aviation security?
- What is the level of funding from the general taxpayer in each State?
- What is the balance of funding between the passenger and the general taxpayer in each State?
- The proportion of total European revenue generated, and expenditure incurred, relative to the proportion of total European traffic in that State was then examined to determine if there are any correlations.
- Finally, the impact of aviation security charges of potentially suppressing demand was examined. Analysis was carried out to assess the relative proportion of security taxes and charges to fares levels for a sample of intra European, long haul and domestic/low cost carrier routes.

- Three States (Denmark, Finland and Norway) did not report levying any security related taxes and/or airport charges during 2002.
- In 11 of the 15 States where security related taxes and/or airport charges were levied in 2002 the total revenue generated from State taxes and charges was relatively consistent with total burden on the passenger of under €2.00.
- Of these 11 States, 6 had taxes and charges ranging up to €1.00 (Greece, Iceland, Luxembourg, Spain, Sweden and the UK); 2 ranged from €1.00 to €1.50 (Portugal and Switzerland); 3 ranged from €1.50 to €2.00 (Belgium, France and Ireland).
- By contrast, 4 States (Austria, Germany, Italy and the Netherlands) had estimated passenger burdens ranging from €2.18 to €3.13.
- There was no clear distinction in the levels of revenue generated per passenger under either of the models with 5 of the decentralised model States charging passengers a total of less than €2.00 compared to 6 States in the centralised model. The 4 highest charging States were all in the centralised model.
- Passengers in the 4 highest charging States were paying considerably more in specific security related State taxes and airport charges than passengers in the other States.
- The actual passenger charges related to security may also be contained in general aeronautical charges at a number of airports, including those large regulated airports in Denmark and the UK. This lack of transparent application of security charges distorts the overall understanding of the revenues actually generated to fund security at airports across Europe.
- The expenditure per passenger on security related activities provided by the stakeholders ranged from less than €1.00 in 4 States (Finland, Iceland, Norway and Sweden) to less than €2.00 in a further 5 States (Denmark, Greece, Ireland, Portugal and Spain). A further 4 States had expenditure up to circa €2.50 (Austria, Belgium, Italy and the UK) and another 2 States with expenditure just over €2.50 (France and the Netherlands). Germany and Switzerland recorded average expenditure of around €4.00 per passenger.

Luxembourg was the outlier with a total expenditure of €8.87.

- Germany, Austria, Italy and the Netherlands had some of the highest levels of expenditure to match the high levels of revenues.

- No clear conclusions can be drawn as to whether either of the models produces lower overall levels of expenditure. In 2002, the full requirements of Regulation (EC) No 2320/2002 had not yet been fully complied with in a number of States.

- What does emerge is that the 4 States with the highest levels of expenditure were all in the centralised model (with average cost above €2.50 per passenger).

- At the operating level, it is clear that the specific State aviation security taxes and airport security charges do not fully meet the costs of aviation security in 14 of the 18 States. Apart from Luxembourg with the largest per passenger operating deficit of €8.62, 4 other States had deficits between €1.01 and €2.36 (Denmark, Greece, Switzerland and the UK).

- A further 9 States had deficits of less than €1.00 per passenger (Belgium, France, Germany, the Netherlands, Norway, Portugal, Finland, Italy and Spain).

- The remaining 4 States posted small operating surpluses in 2002, ranging between €0.04 and €0.12 for Austria, Ireland and Sweden. Iceland posted the largest surplus with €0.59 per passenger.

- Where revenues from specific State security taxes were insufficient to meet State expenditure, funding was assumed to be provided by the general taxpayer in that State. The analysis has been developed on the basis that unless otherwise advised, security taxes are set at a level to meet State security related expenditure.

- Some level of funding from the general taxpayer was found to be required in 6 States with the largest funding from general sources in Luxembourg at €8.62 per passenger. The remaining 5 States (Belgium, Germany, Portugal, the Netherlands and Switzerland) ranged from €0.02 to €0.49 per passenger.

- The balance of funding between the passenger and the general taxpayer in each State is therefore weighted heavily towards funding by the passenger. In 12 of the 13 States with operating deficits (with the exception of Luxembourg), the airports fund the major proportion of the deficit. The issue of how much security related revenue is raised from general aeronautical charges distorts this issue as a number of airports do not levy specific security charges but have raised their general charges in 2003 specifically to meet increased security costs.

**Comparison of traffic share versus security revenues and expenditure**

- There would appear to be good correlation between a State's proportion of total European traffic and its proportion of both total security income and expenditure in 11 of the 18 States.

- Overall there is a good fit between the relative proportions of security revenue generation, expenditure and traffic for the 18 States. Whilst there are variances in revenues and/or expenditure versus traffic share in a number of the 18 States, the overall relationships would appear to suggest that share of total revenues and costs should

relate to traffic share in the majority of the States.

### Elasticity of demand assessment

- In 2002, combined State and airport income from passenger related aviation security taxes and charges for the 18 States increased by an estimated 75% over the previous year to €1.2bn. However, total traffic throughput declined by 1.6%, which would indicate at a macro level that passenger elasticity of demand, would not appear to be overly sensitive to increased security costs.

- Lower traffic in 2002 would have been driven by a number of variables including global economic downturn, threats of terrorism and war in Afghanistan. However, the additional State taxes and airport charges increases may have had a contributory effect on the overall decrease in traffic levels. In the Netherlands, traffic grew almost 5% year-on-year when there was a 236% increase in State and airport security revenues through increased levies on passengers. By contrast in Belgium, where traffic declined by 23%, levies increased by 8%.

- It is always very difficult to isolate the impact of one variable where multi-variants combine to produce an outcome. However, given the financial pressures on airlines and airports during 2002, any increases in security costs would have had a negative impact on airport and airline profitability. Further analysis of this aspect is outside the scope of this study.

### Proportion of security taxes and charges on airfares

- From comparing the security taxes and airport related charges versus the average fares for economy and business class travel at a sample of European and long-haul routes, the following conclusions can be drawn:

  - The impact of security taxes and charges on the sample of long-haul routes is minimal representing less than 1% of the average economy class fare and less than 0.5% of the average business class fare.

  - For intra-European travel, the combination of security taxes and airport charges represents between 1% and 2% of the average fare.

  - For domestic routes, security levies represent between 3% and 6% of the cost of the sample of routes, which is significantly higher than those averaged by intra-European routes.

  - Due to the nature of the no frills business model (low-fare and short sectors), the proportion of security taxes and charges paid by passengers is likely to be significantly higher than for any of the other route samples analysed. However, this may depend on the originating point of travel (State and/or airport). For example, an easyJet passenger would have been charged 1.2% of the average fare when departing from London-Luton airport, but this could have risen to as much as 13% when departing from Amsterdam Schiphol.

- Although there is no evidence that security taxes and airport charges represent a deterrent to air travel demand, these could represent a significant proportional cost for passengers particularly when travelling on domestic routes and/or no-frills carriers.

## 6.2 Aviation security operating results

### 6.2.1 Introduction

This section provides a comparison of the level of security income generated by each stakeholder (i.e. States, airports and carriers) versus the level of security operating expenditure incurred to produce a net operating result for each stakeholder.

The analysis is based on those stakeholders providing financial information as part of the study. It examines the net security related operating position achieved by stakeholders at a national, airport and carrier level. It estimates the aggregate level of security income and operational expenditure for each State. The results are then compared on a consolidated basis, taking into consideration any surplus or deficit generated by each stakeholder at each level.

The results are presented in 3 scenarios:

- **Scenario 1:** State and airports stand alone results.
- **Scenario 2:** State and airports results combined.
- **Scenario 3:** Carrier results.

Estimates for all State and airport stakeholders in the 18 States have been developed to produce a European wide view of the income and costs associated with the provision of aviation security.

An assessment of any competition issues emerging from the differing approaches to aviation security under the centralised and decentralised models are assessed. This includes an assessment of the impact of security taxes and charges on average airfares in Europe.

Due to limited financial information received from the respondents, this analysis concentrates on financial year 2002 and is therefore a snapshot, however it provides a good basis for assessing the structure of future security funding in Europe.

An assessment of the individual State and responding airports' operating results is included at Appendix E.

### 6.2.2 Scenario 1: State and airport results

In this first scenario, the net positions of the activities provided by the State and those provided by the airports are individually assessed. States and airports are split into the two models; centralised and decentralised, depending on which party has primary responsibility for the provision of the key security activities such as passenger and baggage screening.

#### 6.2.2.1 Centralised model

**State level**

In 2002, the 12 States adopting the centralised model posted an estimated overall deficit of circa €67m. Austria and Iceland posted small surpluses of €1.4m and €1.1m respectively.

Germany incurred in the largest deficit with €46m. It is followed by Luxembourg, Switzerland and the Netherlands, with a combined deficit of €24m.

For Luxembourg, even when considering the airport's security charges income[1] (€0.4m in security charges in 2002), the overall deficit remains at over €13m. This equates to a deficit of €8.87 per passenger. The deficits in Germany and Switzerland equate to €0.49 and €0.26 per passenger respectively.

**Figure 6-1: Centralised Model: Estimated State operating results (2002)**

| STATES | 2002 | | | | | |
|---|---|---|---|---|---|---|
| | State income (taxation) *€ m* | State expenditure *€ m* | State operating result *€ m* | Average tax per passenger *€ per pax* | Average State cost per pax *€ per pax* | Average operating result *€ per pax* |
| Austria | 34.1 | 32.7 | 1.4 | 2.18 | 2.09 | 0.09 |
| Finland | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Germany | 287.1 | 333.1 | -46.0 | 3.07 | 3.56 | -0.49 |
| Iceland | 1.4 | 0.3 | 1.1 | 0.72 | 0.13 | 0.59 |
| Italy | 82.3 | 82.3 | 0.0 | 0.94 | 0.94 | 0.00 |
| Luxembourg | 0.0 | 13.5 | -13.5 | 0.00 | 8.87 | -8.87 |
| Netherlands | 53.9 | 56.5 | -2.6 | 1.28 | 1.35 | -0.06 |
| Norway | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Portugal | 24.7 | 25.0 | -0.3 | 1.21 | 1.22 | -0.02 |
| Spain | 38.5 | 38.5 | 0.0 | 0.27 | 0.27 | 0.00 |
| Sweden | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Switzerland | 0.0 | 7.5 | -7.5 | 0.00 | 0.26 | -0.26 |
| **Centralised** | **522.0** | **589.4** | **-67.4** | **1.29** | **1.36** | **-0.16** |

Source: IAA/AviaSolutions estimations

With the exception of Luxembourg and Germany, no State adopting the centralised model would appear to have a significant operating deficit. Where deficits occur, this indicates that the State aviation security costs are being funded from general taxes as opposed to aviation security taxes. Most States appear to be generating sufficient income through security taxes to cover the cost of providing security related activities. This is based on the general working assumption that security taxes are set at a level to match expenditure for those States where cost information was not provided.

### Airport level

In 2002 under the centralised model, the estimated total airport security expenditure was circa €251m higher than the total security related revenue (€283m versus €534m). The weighted average income per passenger of €0.64 compared to the weighted cost of €1.10 is driven by having more passengers at those airports where costs are incurred than for those airports where income is generated.

2002 also saw significant differences in the funding of security related activity between the airports[2]. In the Netherlands and Sweden, responding airports reported a small surplus, while airports in Germany, Italy, Norway, Finland and Switzerland reported deficits of €46m, €24m, €8m, €7m and €61m respectively.

[1] Luxembourg DGAC is responsible for provision of key security activities and also operates the State's only airport Luxembourg – Findel Airport.
[2] Responding airports in Spain did not provide any security expenditure information.

**Figure 6-2: Centralised Model: Estimated responding airports operating result (2002)**

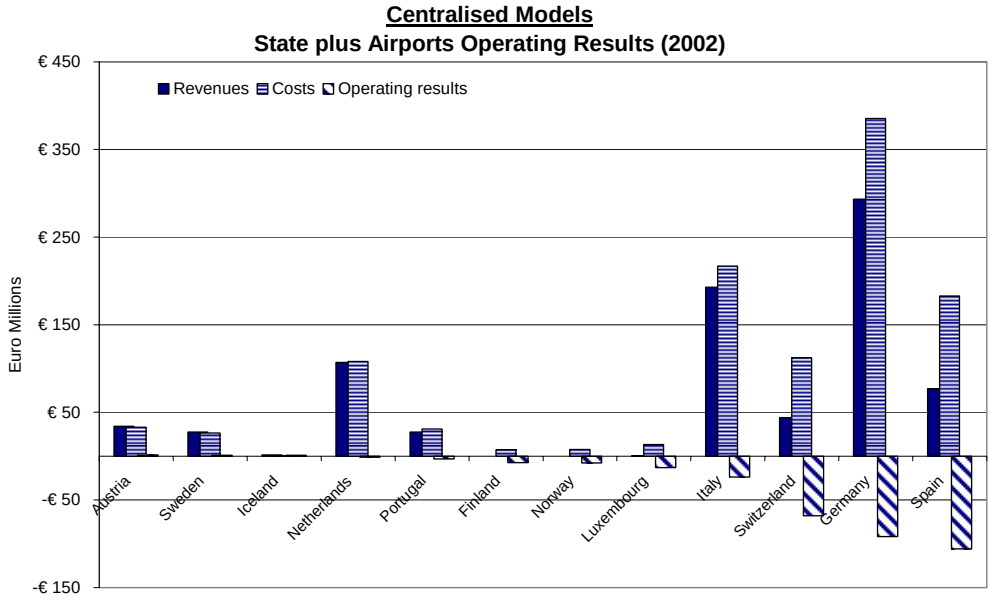
| AIRPORTS | 2002 | | | | | |
|---|---|---|---|---|---|---|
| | Airport income *(all airports)* *€ m* | Airport expenditure *(all airports)* *€ m* | Airport operating result *€ m* | Average charge per passenger *€ per pax* | Average airport cost per pax *€ per pax* | Average operating result *(all airports)* *€ per pax* |
| Austria | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Finland | 0.0 | 7.2 | -7.2 | 0.00 | 0.55 | -0.55 |
| Germany | 6.2 | 52.1 | -45.9 | 0.07 | 0.56 | -0.49 |
| Iceland | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Italy | 110.6 | 134.4 | -23.8 | 1.26 | 1.53 | -0.27 |
| Luxembourg | 0.4 | 0.0 | 0.4 | 0.25 | 0.00 | 0.00 |
| Netherlands | 53.0 | 51.5 | 1.4 | 1.26 | 1.23 | 0.03 |
| Norway | 0.0 | 7.6 | -7.6 | 0.00 | 0.25 | -0.25 |
| Portugal | 3.0 | 5.8 | -2.9 | 0.15 | 0.29 | -0.14 |
| Spain | 38.5 | 144.4 | -106.0 | 0.27 | 1.01 | -0.74 |
| Sweden | 27.4 | 26.2 | 1.2 | 0.98 | 0.93 | 0.04 |
| Switzerland | 44.0 | 104.7 | -60.6 | 1.53 | 3.63 | -2.10 |
| **Centralised** | **283.0** | **534.0** | **-250.9** | **0.64** | **1.10** | **-0.52** |

Source: IAA/AviaSolutions estimates

Portuguese, Italian, Finish and Norwegian airports do not levy any specific security charges. The Portuguese Airport Authority (ANA) receives 12.5% of the State security taxation. Similarly Italian airports also received a share of the State security taxation income. In Norway, no airport charges revenue has been included as no specific charges were levied in 2002. Avinor (the Norwegian airports authority) increased their general aeronautical tariffs (i.e. passenger service charge) from January 2003 to cover increasing security costs. Spanish airports share 50% of the security charges income with the State.

The following figure illustrates the funding deficit or surplus reported by the 12 States under the centralised model.

**Figure 6-3: Centralised Model: Estimated security operating results for responding airports (2002)**




Source: IAA/AviaSolutions estimates

#### 6.2.2.2 Decentralised model

**States level**

In 2002, the net result from State taxation income and security expenditure was almost neutral. Belgium was the only State in the decentralised model that posted a deficit (€1.5 million). This equated to an average deficit of €0.09 per passenger handled by Belgium's airports.

**Figure 6-4: Decentralised Model: Estimated State operating result (2002)**

| STATES | 2002 | | | | | |
|---|---|---|---|---|---|---|
| | State income (taxation) *€ m* | State expenditure *€ m* | State operating result *€ m* | Average tax per passenger *€ per pax* | Average State cost per pax *€ per pax* | Average operating result *€ per pax* |
| Belgium | 1.2 | 2.7 | -1.5 | 0.08 | 0.17 | -0.09 |
| Denmark | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| France | 62.0 | 62.0 | 0.0 | 0.51 | 0.51 | 0.00 |
| Greece | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Ireland | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| United Kingdom | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Decentralised** | **63.2** | **64.7** | **-1.5** | **0.46** | **0.47** | **-0.01** |

Source: IAA/AviaSolutions estimates

**Airport level**

The overall deficit for responding airports under the decentralised model was almost €466m in 2002, an average deficit of €1.22 per passenger.

**Figure 6-5: Decentralised Model: Estimated responding airports operating result (2002)**

| AIRPORTS | 2002 | | | | | |
|---|---|---|---|---|---|---|
| | Airport income *(all airports)* *€ m* | Airport expenditure *(all airports)* *€ m* | Airport operating result *€ m* | Average charge per passenger *€ per pax* | Average airport cost per pax *€ per pax* | Average operating result *(all airports)* *€ per pax* |
| Belgium | 29.0 | 31.2 | -2.3 | 1.80 | 1.94 | -0.14 |
| Denmark | 0.0 | 22.9 | -22.9 | 0.00 | 1.08 | -1.08 |
| France | 166.8 | 246.5 | -79.7 | 1.38 | 2.04 | -0.66 |
| Greece | 7.7 | 19.7 | -12.0 | 0.65 | 1.66 | -1.01 |
| Ireland | 36.7 | 34.3 | 2.4 | 1.87 | 1.74 | 0.12 |
| United Kingdom | 81.6 | 432.9 | -351.3 | 0.43 | 2.27 | -1.84 |
| **Decentralised** | **321.8** | **787.5** | **-465.7** | **0.90** | **2.07** | **-1.22** |

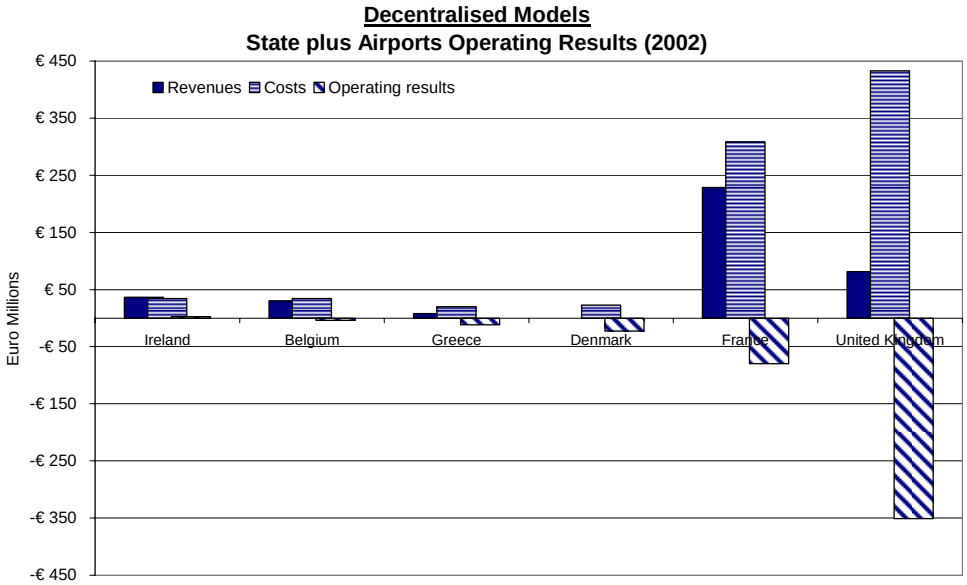
Source: IAA/AviaSolutions estimates

Under the decentralised model, only Irish airports appear to have recorded a nominal security surplus (average of €0.12 per passenger). This is primarily driven by Aer Rianta[3] airports, although unlike other regulated airports, Aer Rianta has a separate security charge. It is important to note that whilst Aer Rianta recorded a small surplus in security activities during 2002, they also reported an overall under-recovery of €0.75 per passenger in relation to their maximum allowable charge per passenger (price cap). If Aer Rianta did not separate out charges for security related activities, they would be in a similar position to BAA and Copenhagen with a theoretic security cost and no revenues resulting in an overall security deficit.

The largest overall deficits were posted by Danish, French and UK airports with €23m, €80m and €351m respectively. This outcome is not unexpected as none of the major airports in Denmark and UK impose a specific security related charge. The average funding gap for airports in Denmark and the UK is significantly larger than for other airports, at €1.08 and €1.84 per passenger respectively.[4]

The funding gap reported by the other responding airports was lower than the weighted average, ranging from -€0.14 to -€1.01 per passenger for Belgian and Greek airports. Airports in Belgium, France and Greece have recently reviewed their security related costs and increased their security charges during 2003.

**Figure 6-6: Decentralised Model: Estimated security operating results for responding airports (2002)**




Source: IAA/ AviaSolutions estimates

[3] Aer Rianta is the operator of Dublin, Cork and Shannon airports.
[4] Security activities at Copenhagen and BAA airports (which are subject to economic regulation) are funded to some extent through general traffic charges compared to other airports that levy a separate security charge.

### 6.2.3 Scenario 2: Combined model

Under this scenario, the estimated combined net position for both the States and all of the airports in the 18 States (i.e. not just the responding airports) is outlined. This includes a comparison of the level of security income versus expenditure under the centralised and decentralised models, as well as an outline of the consolidated results.

Estimations of security revenues and expenditure for all stakeholders across the 18 States were produced. These estimates were based on the average unit revenues and costs for the responding airports in each State. This approach may provide inaccurate results as any efficiencies or inefficiencies for responding airports in each of the States is applied to all of the airports in that State. However, the approach is deemed to be a good proxy for overall revenues and expenditure given that the responding airports accounted for 56% of all airport traffic in the 18 States in 2002.

#### 6.2.3.1 State results –Combined model

In broad terms, the operating result for most States is neutral with security taxation income around the same level as expenditure.[5]

The overall State deficit is estimated at circa €69m based on total taxation income of €585m and expenditure projection of €654m. This represents a deficit of €0.12 per passenger.

The deficit for States under each model varies slightly with the States under the centralised model recording a deficit of €0.16 per passenger compared to the decentralised model at €0.01 per passenger.

This highlights the hypothesis that some States under the centralised model are funding security related activities through general taxation and/or special grants, in contrast to the decentralised model, where the authorities does not have any involvement in the provision of security and hence do not incur in any substantial security related expenditure.

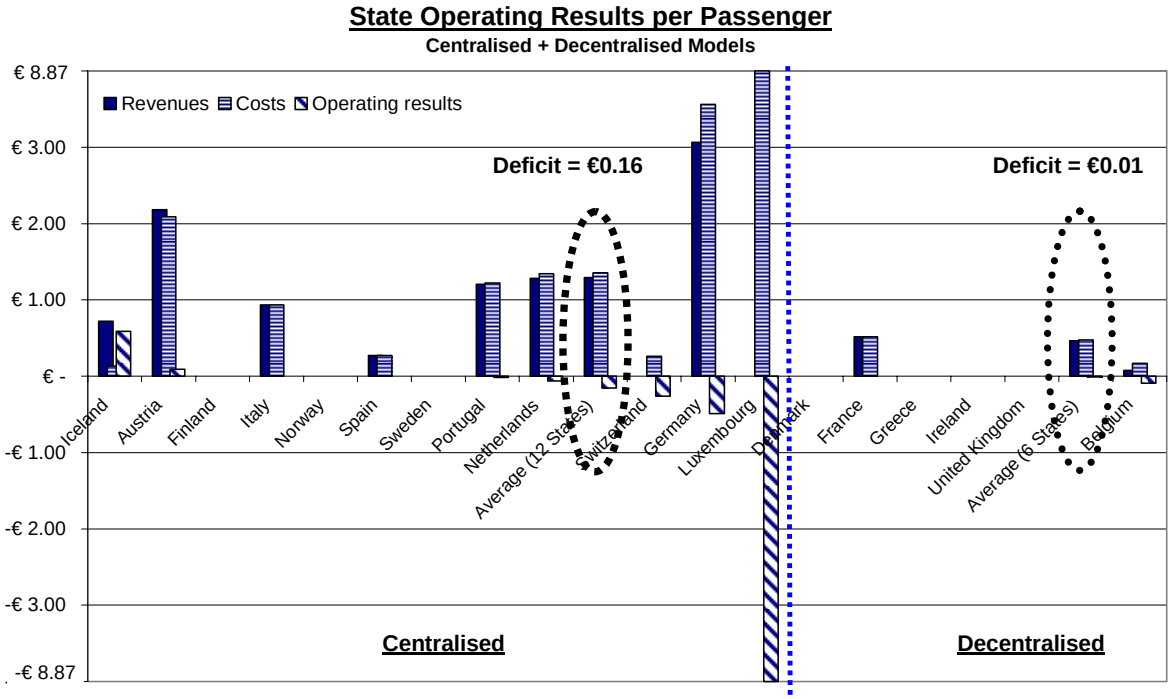
[5] For several States where no security expenditure data was provided, it was assumed that expenditure equates to the level of funding generated through security taxes.

**Figure 6-7: Combined State operating results (2002)**

| STATES | 2002 | | | | | |
|---|---|---|---|---|---|---|
| | State income (taxation) *€ m* | State expenditure *€ m* | State operating result *€ m* | Average tax per passenger *€ per pax* | Average State cost per pax *€ per pax* | Average operating result *€ per pax* |
| Austria | 34.1 | 32.7 | 1.4 | 2.18 | 2.09 | 0.09 |
| Belgium | 1.2 | 2.7 | -1.5 | 0.08 | 0.17 | -0.09 |
| Denmark | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Finland | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| France | 62.0 | 62.0 | 0.0 | 0.51 | 0.51 | 0.00 |
| Germany | 287.1 | 333.1 | -46.0 | 3.07 | 3.56 | -0.49 |
| Greece | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Iceland | 1.4 | 0.3 | 1.1 | 0.72 | 0.13 | 0.59 |
| Ireland | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Italy | 82.3 | 82.3 | 0.0 | 0.94 | 0.94 | 0.00 |
| Luxembourg | 0.0 | 13.5 | -13.5 | 0.00 | 8.87 | -8.87 |
| Netherlands | 53.9 | 56.5 | -2.6 | 1.28 | 1.35 | -0.06 |
| Norway | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Portugal | 24.7 | 25.0 | -0.3 | 1.21 | 1.22 | -0.02 |
| Spain | 38.5 | 38.5 | 0.0 | 0.27 | 0.27 | 0.00 |
| Sweden | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Switzerland | 0.0 | 7.5 | -7.5 | 0.00 | 0.26 | -0.26 |
| United Kingdom | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **Total** | **585.2** | **654.1** | **-68.9** | **1.08** | **1.14** | **-0.12** |
| **Centralised** | **522.0** | **589.4** | **-67.4** | **1.29** | **1.36** | **-0.16** |
| **Decentralised** | **63.2** | **64.7** | **-1.5** | **0.46** | **0.47** | **-0.01** |

Source: IAA/AviaSolutions estimates

**Figure 6-8: Estimated State operating results – per passenger (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

In the centralised model, Iceland and Austria posted estimated security surpluses of €0.59 and €0.09 per passenger respectively. Portugal, Netherlands, Switzerland, Germany and Luxembourg recorded funding deficits of €0.02, €0.06, €0.26, €0.49 and €8.87 per passenger respectively. Luxembourg and Switzerland do not currently levy any specific security related tax therefore the provision of security is being funded from general taxation.[6]

In Italy, the State security expenditure was assumed to be broadly in line with security taxation income. If security taxes are not set at a level to fully recover all security related expenditure costs, the resulting deficit would have to be funded by the State from general taxation revenues.

Belgium is the only State under the decentralised model to record a security deficit of €0.09 per passenger. Although the Belgian national authorities are not involved in the provision of security activities, regional authorities are responsible for funding security activities at regional airports. It would appear that the taxation income generated from applying a small levy of €0.15 per departing passenger for all passengers in Belgium is not sufficient to offset the total security cost at regional airports. The extent of this funding gap is likely to be larger as security expenditure data was only available for one regional authority[7].

In general, States under the decentralised approach are not involved in the provision of security measures and therefore are not faced with security financing issues.

#### 6.2.3.2 Airport results –Combined models

Estimated security income for all airports[8] in the 18 States totalled €605m with expenditure projected at €1.3bn (assuming responding airport unit cost averages for all airports within the same State). This represents a funding gap of €717m for European airports in 2002.

A large proportion of the deficits arise from Copenhagen and BAA airports (circa €320m) as these airports do not generate any direct security related income. When these airports are excluded, the deficit reduces to €397m. In the UK, BAA, the principal airport operator, does not currently levy specific security charges. The BAA funding gap of €300m in 2002 was financed from other airport activities. BAA's traffic charges for their London airports (Heathrow, Gatwick and Stansted) are subject to economic regulation under the 'single-till' approach. These airports accounted for around 85% of BAA's UK traffic in 2002. This means that any security related expenditure would be taken into consideration by the regulator when setting BAA's allowable traffic charges. As such, BAA is reimbursed to some extent for the cost of security through the allowed airport charges. This means that the size of the UK deficit is likely to be overstated.

A similar regulatory approach is in place in Denmark and Ireland. However the security charging position in Ireland is more transparent as Aer Rianta levies specific security charges within its regulatory charges cap.

[6] The CAA acts as regulator and airport operator in Luxembourg.
[7] Flemish region responsible of Antwerp and Ostend airports. No data for Wallonie region responsible of Charleroi and Liege.
[8] Includes 404 commercial airports in the 18 States with traffic throughputs above 5,000 passenger p.a. in 2002.

The total airport expenditure is based on the average security cost reported by the responding airports in each State. Expenditure for Spanish airports is based on the overall weighted average cost per passenger for airports under the centralised model as no security cost information was provided by Aena, the Spanish airports operator.

**Figure 6-9: Combined operating result for all airports (2002)**

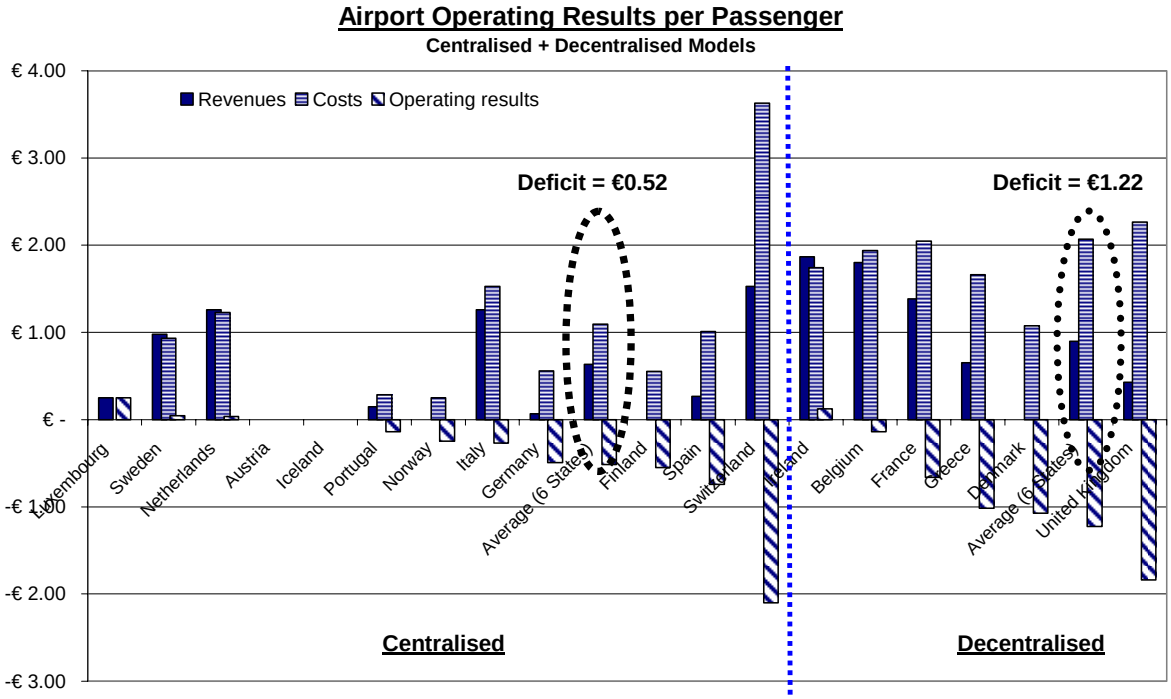
| AIRPORTS | 2002 | | | | | |
|---|---|---|---|---|---|---|
| | Airport income *(all airports)* *€ m* | Airport expenditure *(all airports)* *€ m* | Airport operating result *€ m* | Average charge per passenger *€ per pax* | Average airport cost per pax *€ per pax* | Average operating result *(all airports)* *€ per pax* |
| Austria | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Belgium | 29.0 | 31.2 | -2.3 | 1.80 | 1.94 | -0.14 |
| Denmark | 0.0 | 22.9 | -22.9 | 0.00 | 1.08 | -1.08 |
| Finland | 0.0 | 7.2 | -7.2 | 0.00 | 0.55 | -0.55 |
| France | 166.8 | 246.5 | -79.7 | 1.38 | 2.04 | -0.66 |
| Germany | 6.2 | 52.1 | -45.9 | 0.07 | 0.56 | -0.49 |
| Greece | 7.7 | 19.7 | -12.0 | 0.65 | 1.66 | -1.01 |
| Iceland | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Ireland | 36.7 | 34.3 | 2.4 | 1.87 | 1.74 | 0.12 |
| Italy | 110.6 | 134.4 | -23.8 | 1.26 | 1.53 | -0.27 |
| Luxembourg | 0.4 | 0.0 | 0.4 | 0.25 | 0.00 | 0.25 |
| Netherlands | 53.0 | 51.5 | 1.4 | 1.26 | 1.23 | 0.03 |
| Norway | 0.0 | 7.6 | -7.6 | 0.00 | 0.25 | -0.25 |
| Portugal | 3.0 | 5.8 | -2.9 | 0.15 | 0.29 | -0.14 |
| Spain | 38.5 | 144.4 | -106.0 | 0.27 | 1.01 | -0.74 |
| Sweden | 27.4 | 26.2 | 1.2 | 0.98 | 0.93 | 0.04 |
| Switzerland | 44.0 | 104.7 | -60.6 | 1.53 | 3.63 | -2.10 |
| United Kingdom | 81.6 | 432.9 | -351.3 | 0.43 | 2.27 | -1.84 |
| **Total** | **604.8** | **1321.5** | **-716.7** | **0.75** | **1.52** | **-0.83** |
| **Centralised** | **283.0** | **534.0** | **-250.9** | **0.64** | **1.10** | **-0.52** |
| **Decentralised** | **321.8** | **787.5** | **-465.7** | **0.90** | **2.07** | **-1.22** |

Source: IAA/AviaSolutions estimates based on security questionnaires

The overall airport funding gap equates to an average deficit of €0.83 per passenger across all European airports. It reduces to €0.46 when the Copenhagen and BAA airports are excluded from the estimates.

The total funding gaps for airports under the centralised and decentralised models were €251m and €466m. The average deficits per passenger are very different at €0.52 and €1.22 for centralised and decentralised respectively.

**Figure 6-10: Estimated operating results for all European airports (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

The results vary widely amongst States. Airports in 3 out of 12 States under the centralised model posted security surpluses (Sweden, Netherlands and Luxembourg) with airports in 7 other States recording security deficits in 2002.

For airports in Germany, Italy, Norway and Portugal, the average deficit is below the centralised weighted average deficit (€0.52); but for Finland, Spain and Switzerland the deficit is higher ranging from €0.55 per passenger in Finland to €2.10 per passenger in Switzerland.

Under the decentralised model, only Irish airports appear to have recorded security surpluses (€0.12 per passenger).

Airports in Belgium, Denmark, France, Greece and the UK recorded security deficits ranging from €0.14 to €1.84 per passenger for Belgian and UK airports respectively.

Average operating results vary more widely for airports under the decentralised model than for the centralised model. The average deficit for decentralised airports (€1.22 per passenger) is more than double the average deficit recorded by airports under the centralised model (€0.52 per passenger).

For some the airports, the seemingly large operating deficit masks the underlying way in which security charges are levied. Many airports do not levy specific charges and the cost of security activities is remunerated through other aeronautical charges. In the case of the airports (including BAA and Copenhagen) that are subject to economic regulation of airport charges, whilst there are no specific security charges, the allowed charges takes into account all costs, including those related to security. Security related costs would therefore appear to be remunerated to some extent through from other allowed airport charges.

A good illustration of this is that the Danish Ministry of Transport approved an increase of 10.1% to Copenhagen's passenger charge in April 2004 to offset increases in security related operational expenditure as a direct result of Regulation No. 2320/2002 implementation. This equates to a rise of €1.27 (DKK 9.49) per originating departing passenger over the 2003 published charges.[9]

Even though the introduction of specific security charges is becoming common practice for European airports, particularly after 11th September 2001, not all airports levy a specific security charge. From the projections, it would appear that European airports are not fully recovering the provision of security activities through specific charges. In these cases, airports are likely to be funding such gaps from other revenue sources (i.e. traffic charges, commercial activities or a combination of both).

#### 6.2.3.3 Combined position: States plus airports

When the projections for income and costs across the 18 States are combined, the deficit was estimated to be around €786m in 2002 (State: €69m; Airports: €717m).

**Figure 6-11: Combined State and airport operating results (2002)**

| COMBINED POSITION | 2002 | | | | | |
|---|---|---|---|---|---|---|
| Combined States | State+airport income *(all airports)* € m | State+airport expenditure *(all airports)* € m | Overall operating result *(all airports)* € m | Weighted revenue per pax € per pax | Weighted cost per pax € per pax | Weighted operating result € per pax |
| Austria | 34.1 | 32.7 | 1.4 | 2.18 | 2.09 | 0.09 |
| Belgium | 30.2 | 33.9 | -3.7 | 1.87 | 2.11 | -0.23 |
| Denmark | 0.0 | 22.9 | -22.9 | 0.00 | 1.08 | -1.08 |
| Finland | 0.0 | 7.2 | -7.2 | 0.00 | 0.55 | -0.55 |
| France | 228.8 | 308.5 | -79.7 | 1.90 | 2.56 | -0.66 |
| Germany | 293.3 | 385.2 | -91.9 | 3.13 | 4.11 | -0.98 |
| Greece | 7.7 | 19.7 | -12.0 | 0.65 | 1.66 | -1.01 |
| Iceland | 1.4 | 0.3 | 1.1 | 0.72 | 0.13 | 0.59 |
| Ireland | 36.7 | 34.3 | 2.4 | 1.87 | 1.74 | 0.12 |
| Italy | 192.9 | 216.7 | -23.8 | 2.19 | 2.47 | -0.27 |
| Luxembourg | 0.4 | 13.5 | -13.1 | 0.25 | 8.87 | -8.62 |
| Netherlands | 106.9 | 108.0 | -1.2 | 2.55 | 2.57 | -0.03 |
| Norway | 0.0 | 7.6 | -7.6 | 0.00 | 0.25 | -0.25 |
| Portugal | 27.7 | 30.8 | -3.2 | 1.35 | 1.51 | -0.16 |
| Spain | 77.0 | 182.9 | -106.0 | 0.54 | 1.28 | -0.74 |
| Sweden | 27.4 | 26.2 | 1.2 | 0.98 | 0.93 | 0.04 |
| Switzerland | 44.0 | 112.2 | -68.1 | 1.53 | 3.89 | -2.36 |
| United Kingdom | 81.6 | 432.9 | -351.3 | 0.43 | 2.27 | -1.84 |
| **Total** | **1190.0** | **1975.6** | **-785.5** | **1.45** | **2.23** | **-0.89** |
| **Centralised** | **805.0** | **1123.3** | **-318.3** | **1.74** | **2.22** | **-0.63** |
| **Decentralised** | **385.0** | **852.2** | **-467.2** | **1.07** | **2.24** | **-1.23** |

Source: IAA/AviaSolutions estimates based on security questionnaires

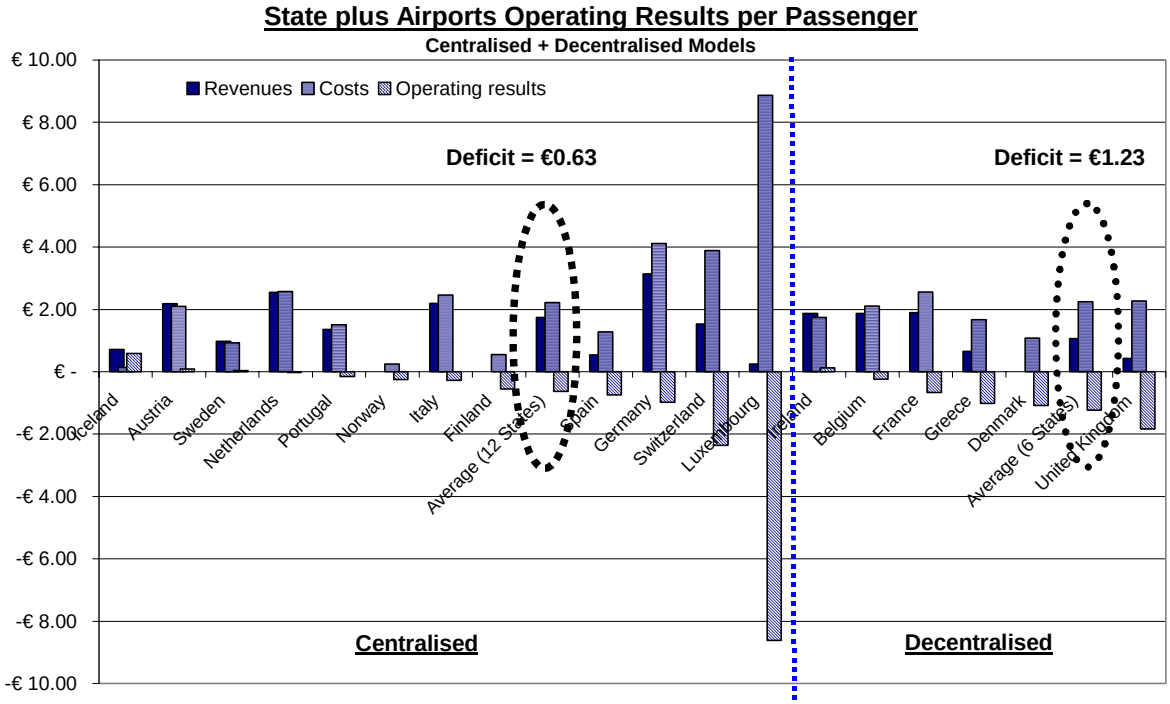
The average combined deficit equated to €0.89 per passenger with the centralised model recording a deficit of €0.63 per passenger compared to €1.23 under the decentralised model.

However, a proper recognition of security revenues for the large regulated airports under the decentralised model would considerably close the gap.

In absolute terms, the estimated funding deficits ranged between €318m and €467m under the centralised and decentralised models.

[9] As outlined on Copenhagen Airport' Tariff Regulations for 2003-2005

**Figure 6-12: Combined State and airport operating results per passenger (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

### 6.2.4 Scenario 3: Carrier results

From the analysis of the responses received, it emerged that in 2002, not all carriers imposed specific security related surcharges. A large proportion of the carriers merely collected the State related taxes and airport charges levied by other stakeholders as pass through charges to passengers. As such, these carriers have been excluded from this analysis.

However, the majority of responding carriers reported an increase in security expenditure during 2002[10]. This analysis is therefore divided into 2 areas. The first examines those carriers levying security related surcharges in 2002 and their net position after security expenditure is considered. The second area examines the total security expenditure for all reporting carriers, compared to the level of security surcharge related income achieved by carriers, in order to estimate the net funding surplus or deficit.

The responses from network or hub carriers (members of AEA) represent 65% of the total traffic for this segment. Air France was the only large European network carrier that did not provide any information. Alitalia and Iberia submitted responses to the carrier security questionnaire but did not provide any details of security related expenditure.

[10] As outlined in Section 4, a number of carriers only provided incremental cost information for 2001 over 2000, and 2002 over 2001. Where full cost information has been provided, this has been included in the carrier expenditure estimates, otherwise the advised incremental costs have been used.

### 6.2.4.1 Carriers reporting security related surcharge income

This analysis produces mixed results with carriers from Austria, Denmark and Ireland incurring a net deficit (€38m, €46m, €0.3 respectively) while carriers from the other States reported a surplus. The reported surplus ranged from €4.7m in Italy to €62m in Germany.

Overall, the carriers reporting security related surcharge income had an estimated operating surplus of €62m in 2002, which equates to €0.30 per passenger.

**Figure 6-13: Estimated carriers operating results (2002) – carriers reporting security related income**

| | 2002 | | | | | | |
|---|---|---|---|---|---|---|---|
| **State** | **Airline income (surcharges)** *€ m* | **Airline security expenditure** *€ m* | **Airline security operating result** *€ m* | **Airline traffic (respondees)** *m pax* | **Average airline income (surcharges)** *€ per pax* | **Average airline expenditure** *€ per pax* | **Average operating result** *€ per pax* |
| Austria | 1.6 | 39.8 | -38.15 | 9 | 0.19 | 4.60 | -4.42 |
| Denmark | 68.3 | 113.8 | -45.53 | 23 | 2.95 | 4.92 | -1.97 |
| Finland | 7.3 | 1.2 | 6.05 | 8 | 0.95 | 0.16 | 0.79 |
| Germany | 253.0 | 191.3 | 61.63 | 54 | 4.72 | 3.57 | 1.15 |
| Ireland | 0.8 | 1.0 | -0.26 | 6 | 0.12 | 0.16 | -0.04 |
| Italy | 4.7 | 0.0 | 4.70 | 1 | 6.00 | 0.00 | 6.00 |
| Portugal | 50.8 | 43.5 | 7.26 | 6 | 8.01 | 6.87 | 1.15 |
| Spain | 40.0 | 19.2 | 20.81 | 35 | 1.15 | 0.55 | 0.60 |
| United Kingdom | 206.8 | 160.9 | 45.87 | 57 | 3.65 | 2.84 | 0.81 |
| **Total** | **633.2** | **571** | **62.38** | **198** | **3.20** | **2.73** | **0.30** |

Source: IAA/AviaSolutions estimates based on security questionnaires
Note: The above table reflects the net position for only those carriers levying a separate security related surcharge during 2002.

### 6.2.4.2 All responding carriers

When the security costs for all responding carriers are included, a different picture emerges. When the passenger throughputs from these additional carriers are taken into consideration, the traffic for responding carriers increases from 198m to 231m passengers in 2002.

Assuming the same level of revenue (as the additional carriers did not advise any additional security income), the weighted average revenue remains the same at €3.20 per passenger.

When the responses from all carriers providing security related costs are taken into consideration, the responding carriers reported a funding gap of €44m in 2002, a deficit of €0.19 per passenger.

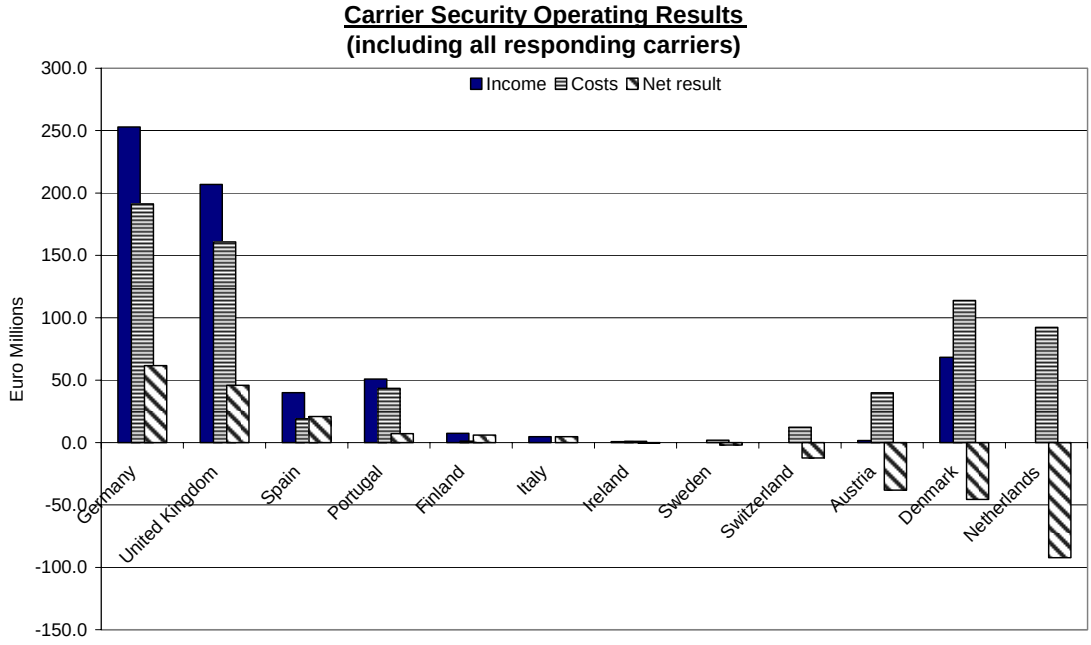
The operating results for the responding carriers were mixed. Carriers in Germany, the UK and Spain achieved operating security surpluses of €62m, €46m and €21m respectively. Carriers in Austria, Denmark, the Netherlands and Switzerland reported deficits of €38m, €46m, €92m and €12m respectively.

**Figure 6-14: Estimated carrier operating result (2002) – all carriers**

| State | 2002 Airline income (surcharges) € m | Airline security expenditure € m | Airline security operating result € m | Airline traffic (respondees) m pax | Average airline income (surcharges) € per pax | Average airline expenditure € per pax | Average operating result € per pax |
|---|---|---|---|---|---|---|---|
| Austria | 1.6 | 39.8 | -38.2 | 9 | 0.19 | 4.60 | -4.42 |
| Denmark | 68.3 | 113.8 | -45.5 | 23 | 2.95 | 4.92 | -1.97 |
| Finland | 7.3 | 1.2 | 6.1 | 8 | 0.95 | 0.16 | 0.79 |
| Germany | 253.0 | 191.3 | 61.6 | 54 | 4.72 | 3.57 | 1.15 |
| Ireland | 0.8 | 1.0 | -0.3 | 6 | 0.12 | 0.16 | -0.04 |
| Italy | 4.7 | 0.0 | 4.7 | 1 | 6.00 | 0.00 | 6.00 |
| Netherlands | 0.0 | 92.3 | -92.3 | 20 | 0.00 | 4.62 | -4.62 |
| Portugal | 50.8 | 43.5 | 7.3 | 6 | 8.01 | 6.87 | 1.15 |
| Spain | 40.0 | 19.2 | 20.8 | 35 | 1.15 | 0.55 | 0.60 |
| Sweden | 0.0 | 1.9 | -1.9 | 1 | 0.00 | 1.75 | -1.75 |
| Switzerland | 0.0 | 12.3 | -12.3 | 12 | 0.00 | 1.06 | -1.06 |
| United Kingdom | 206.8 | 160.9 | 45.9 | 57 | 3.65 | 2.84 | 0.81 |
| **Total** | **633.2** | **677.4** | **-44.2** | **231** | **3.20** | **2.94** | **-0.19** |

Source: IAA/AviaSolutions estimates based on security questionnaires
Note: Carriers from Netherlands, Sweden and Switzerland reported security expenditure but no security related surcharge income in 2002.

**Figure 6-15: Estimated carrier security operating results (2002)**

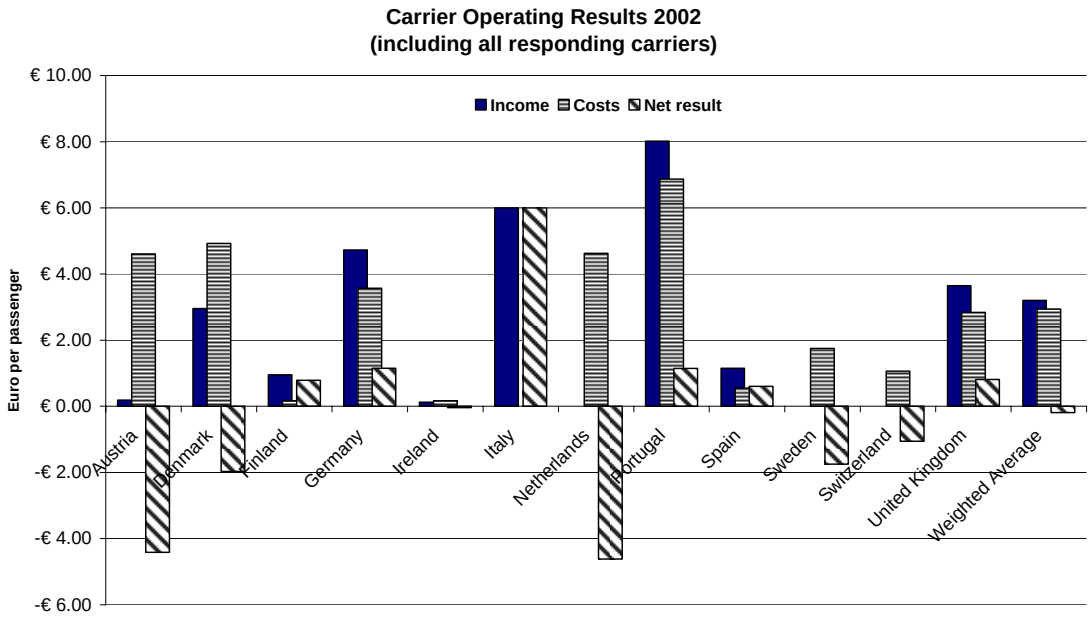



Source: IAA/AviaSolutions estimates based on security questionnaires

Whilst some of these results are significant in order of magnitude, it helps to put them into context when they are expressed on a per passenger basis. The German and Portuguese carriers achieved surpluses averaging €1.15 per passenger, while Dutch and Austrian carriers reported the largest deficits of €4.62 and €4.42 per passenger in 2002. The response from a single Italian carrier with relatively small throughput included revenues but no costs resulting in the highest per passenger net result of €6.00.

Carriers in the other States would appear to be achieving a neutral result with surpluses below €2m or small deficits of less than €2m.

**Figure 6-16: Estimated carriers operating results – per passenger (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

### 6.2.4.3 Carrier expenditure conclusions

Analysis of incremental unit costs for the 19 responding carriers serves as a good representative sample for estimating the total incremental cost for European carriers as a whole.

These estimations help to understand the financial impact of incremental security measures on European carriers since 11 September 2001.

The total passenger market for European carriers is estimated at 466m and 483m for 2001 and 2002 respectively, based on 110 air passenger carriers in the 18 States.

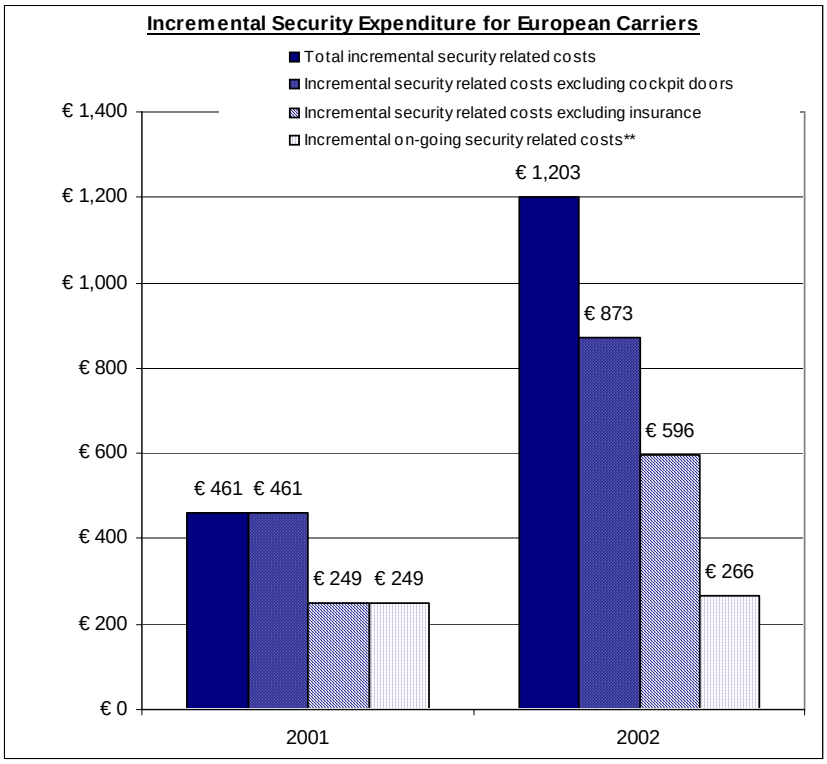
The figure below provides an estimate, based on the large representative sample of responding carriers, of the costs for carriers based in the 18 States for the following:

- Total incremental security related costs.
- Incremental security related costs excluding cockpit doors.
- Incremental security related costs excluding insurance.
- Incremental on-going security related costs excluding cockpit doors and insurance.

Many carriers provided expenditure information on an incremental or additional basis for 2002 over 2001. Some also provided information of additional expenditure in 2001 over 2000. Where both sets of additional cost information have been provided, the total costs in 2002 are assumed to be the sum of the additional costs in both 2001 and 2002.

The following figure illustrates the estimated components of incremental security related expenditure for European carriers in 2001 and 2002.

**Figure 6-17: Estimated incremental security related costs for European carriers (2001 and 2002)**




Key: ** Incremental on-going security related costs excluding cockpit doors and insurance
Estimations: IAA / AviaSolutions

In 2002 compared to 2000, it is estimated that all carriers in the 18 States incurred additional year on year security related expenditure (including insurance and cockpit doors) of over €1,664m (€1,203 + €461m). This is based on estimated carrier additional expenditure in 2002 over 2001 of €1,203, and an additional €461m of expenditure in 2001 over 2000.

When capital expenditure items such as reinforced cockpit doors are excluded, the incremental operational security related expenditure is estimated to be circa €1,334m (€461m + €873m) in 2002 over 2000.

Similarly, if incremental insurance costs are excluded but cockpit doors investments included, the incremental operational expenditure of on-going security related measures in 2002 totals €845m (€249m + €596m). When both cockpit doors and insurance are excluded, the estimated incremental on-going security cost was €515m (€249m + €266) for 2002 over 2000 respectively.

On the basis that the identified airlines levying surcharges are the only carriers in Europe to do so, the €633m is considered a good estimate of total carrier security revenues for 2002.

The estimated range in expenditure from €515m when cockpit doors and insurance are excluded, to €1,664m when these are included would produce an airline operating result range of between a surplus of €118m and a deficit of €1,031m in 2002.

The European airline industry had one of the most challenging years in its history in 2002. Significant financial losses were incurred following the aftermath of 11th September 2001. Those carriers incurring additional security costs without generating income from security surcharges were particularly affected.

The additional costs of modifications to cockpit doors and increased insurance premiums have had a significant impact on individual carrier profitability.

When surcharges income is taken into account, the net impact of security related costs would appear to have been minimal for a number of carriers levying surcharges. The results vary by carrier, especially if a particular carrier did not levy surcharges. Other factors including reductions in passenger numbers, reduced yield, and the collapse of premium business traffic also contributed to the negative financial performance of many European carriers in 2001 and 2002.

#### 6.2.4.4 Carriers security operating results versus overall financial performance

For a selection of carriers, the reported aviation security operating position was compared with available financial results to examine the relationship between carrier profitability and the levying of surcharges[11].

During 2002, from the available sample, 8 carriers reported a total operating profit from operations and 4 recorded an operating loss. When compared to their respective security operating results, 7 of the 8 profitable carriers reported that they levied security surcharges during 2002. For the 4 unprofitable carriers, 2 levied surcharges and 2 did not.

**Figure 6-18: Comparison of air carrier financial results versus security net position (2002)**

| Carriers Reporting Aviation Security data and Total Operating Results data available (Year 2002) | Sample of Carriers | Passenger Surcharge Only | Freight Surcharge Only | Passenger + Freight Surcharges |
|---|---|---|---|---|
| **AvSec Operating Loss + Total Operating Loss** | **4** | | | |
| Carriers with Charges | 2 | 0 | 0 | 2 |
| Carriers without Charges | 2 | 0 | 0 | 0 |
| **AvSec Operating Profit + Total Operating Profit** | **7** | | | |
| Carriers with Charges | 7 | 3 | 2 | 2 |
| Carriers without Charges | 0 | 0 | 0 | 0 |
| **AvSec Operating Loss + Total Operating Profit** | **1** | | | |
| Carriers with Charges | 1 | 0 | 1 | 0 |
| Carriers without Charges | 0 | 0 | 0 | 0 |

Source: IAA/AviaSolutions estimates based on security questionnaires and carrier financial reports

[11] 19 carriers reported aviation security financial data. Information regarding the total operating performance of 12 of these carriers was available, and was the source of this analysis

It would appear that carriers posting operating losses in 2002 were to some extent impacted by their negative position from the financing of additional security costs.

On the other hand, it would also appear that those carriers posting operating profits during the same period also recorded a surplus from surcharge revenues financing security related expenditure in 2002.

### 6.2.5 Summary of results

This section has examined the revenues, expenditure and net operating results for the responding stakeholders as well as estimates for all of the stakeholders in the 18 States in 2002. The estimated security related revenues totalled €1.8bn (€585m + €605m + €633m) when all stakeholders were included. (Note that State grants have been excluded from the passenger related estimations).

The estimates for total expenditure provide a range between €2.5bn (€654m + €1,322m + €515m) and €3.6bn (€654m + €1,322m + €1,664m) depending on whether cockpit door modifications and insurance are included in the carrier estimates.

For the airports, the large operating deficit (€717m) masks the underlying way in which security charges are levied. Many airports do not levy specific charges with the cost of security activities remunerated through other airport charges. In the case of the airports (including BAA and Copenhagen) that are subject to economic regulation of airport charges, whilst there are no specific security charges, the allowed charges take into account all expenditure, including that related to security. As such, security related costs are, in practice, remunerated (to some extent) by other allowed airport charges.

When the large deficit incurred by BAA and Copenhagen is excluded from the total airport net deficit, the airports' deficit reduces from €717m to €397m.

The airports in the centralised model States reported a combined deficit of €251m or €0.52 per passenger compared to the decentralised model with a deficit of €466m or €1.22 per passenger, more than double the centralised average. This gap would reduce considerably if a realistic estimation of regulated airports' security income was included.

Due to the inherent differences in the way in which aviation security is organised and financed across the 18 States, there are inevitably going to be variations in the results at a State level.

Analysis of the State and airport net operating results on a per passenger basis indicates that 3 of the 12 States under the centralised model achieved small surpluses in 2002.

States and airports under the decentralised model saw 5 of the 6 States reporting deficits for 2002. For 2 States (Belgium and France), the deficit was less than €1.00 per passenger. However, for Denmark, Greece and the UK, this deficit was significantly higher ranging from €1.01 to €1.84 per passenger. Ireland was the only decentralised State that reported a small surplus of €0.12 per passenger; however, this was in the context of under recovery of €0.75 per passenger compared to the allowable regulatory price cap.

As noted previously, the responding airports within both Denmark and the UK do not levy any specific security related charges and, as such, the cost of security provision is funded from other revenue sources under their economic regulation mechanisms. It could therefore be considered that these airports do recover the cost of security related activities (to some extent) from other available charges. More recently, the Danish Ministry of Transport authorised in April 2004 a rise

of 10.1% to Copenhagen airport's passenger service charges in order to offset increases in security related expenditure[12].

Aer Rianta in Ireland has been the most transparent of the regulated airports in the study in that separate security charges are published even though all charges are subject to a regulatory charging cap per passenger.

On the basis of the analysis in this section, it would indicate that it is the passengers through State taxes, airport security charges or through airport regulatory pricing arrangements that broadly fund the majority of security related costs for States and airports. Airports reported an estimated €717m operating deficit in 2002 which reduces to €397m when the large regulated airports are excluded.

For the carriers, if the costs of cockpit door modification and insurance premium increases are excluded, the income generated from security related surcharges is estimated to broadly offset the costs advised for those carriers levying security surcharges. When non-recurring cockpit door expenditure is included, as well as the increased insurance premiums, the total deficit for European carriers is estimated at circa €1.0bn in 2002.

However, the expenditure on cockpit door modification was mostly completed in 2002 according to the carrier responses, and these costs of circa €330m are generally considered to be non-recurring.

## 6.3 Assessment of competition issues

To assess the potential impact of any competitive implications of the respective approaches to the financing of aviation security, a number of funding aspects have been examined:

- Do specific State aviation security taxes and airport security charges meet the costs of aviation security?
- What is the level of funding from the general taxpayer in each State?
- What is the balance of funding between the passenger and the general taxpayer in each State?

To carry out this analysis, the funding position in each of the States is outlined and the size of any State funded deficits highlighted.

The proportion of total European revenue generated, and expenditure incurred, in each State relative to the proportion of total European traffic in that State is then examined to determine if there are any correlations.

Finally, the impact of aviation security charges of potentially suppressing demand is examined. This leads to analysis of the relative proportion of security taxes and charges to fares levels for a sample of intra European, long haul and domestic/no frills carrier routes.

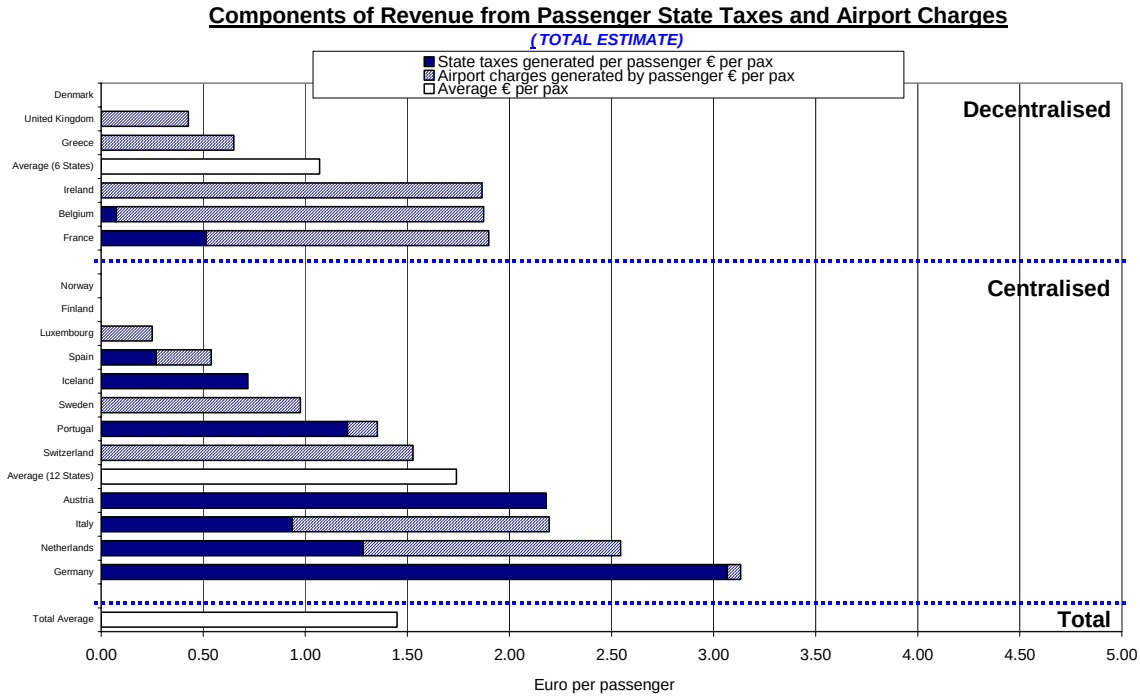
[12] Based on 2004 Copenhagen Airport's Traffic Charges, this equates to around €1.27 (DKK 9.49) per departing passenger.

### 6.3.1 Taxes and charges competition issues

The following figures provide the basis for assessment of competition issues relating to the funding of security by the States and airports under the centralised and decentralised models.

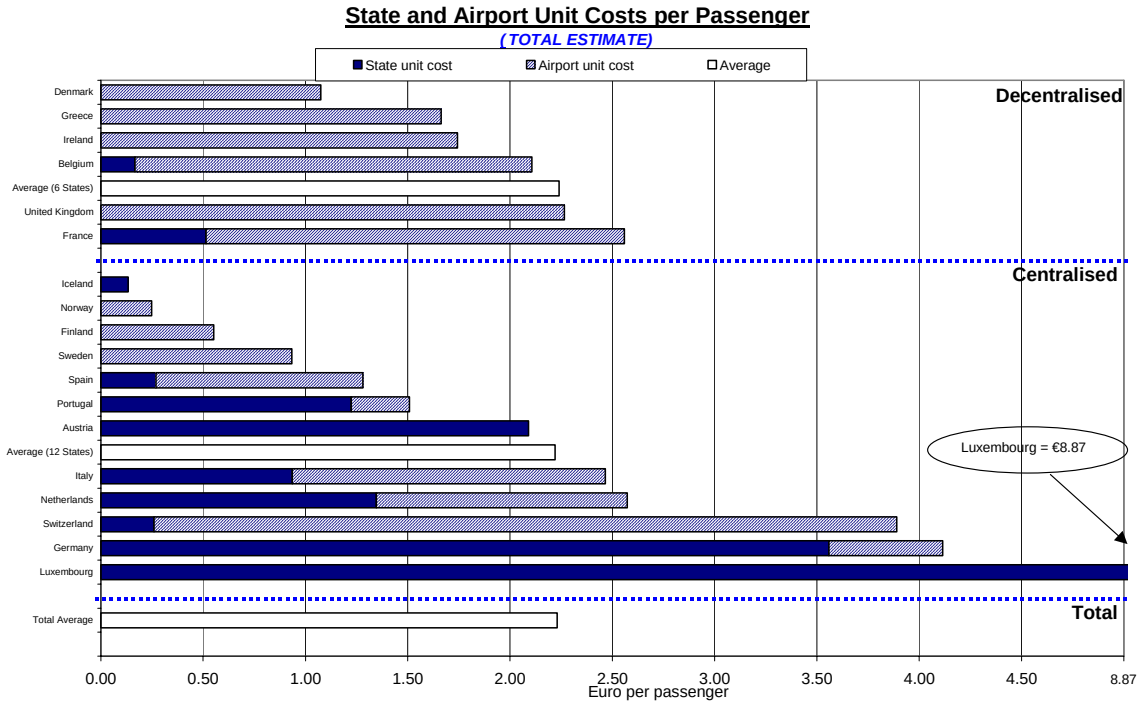
The estimated State and airport revenues from taxes and charges on a per passenger basis are outlined followed by the estimated expenditure by the State and airports on security related activities. Finally the State and airports operating results are outlined where the revenues from taxes and charges have been deducted from the estimated unit costs for both the States and airports.

**Figure 6-19: Estimated State and airport revenues (2002)**



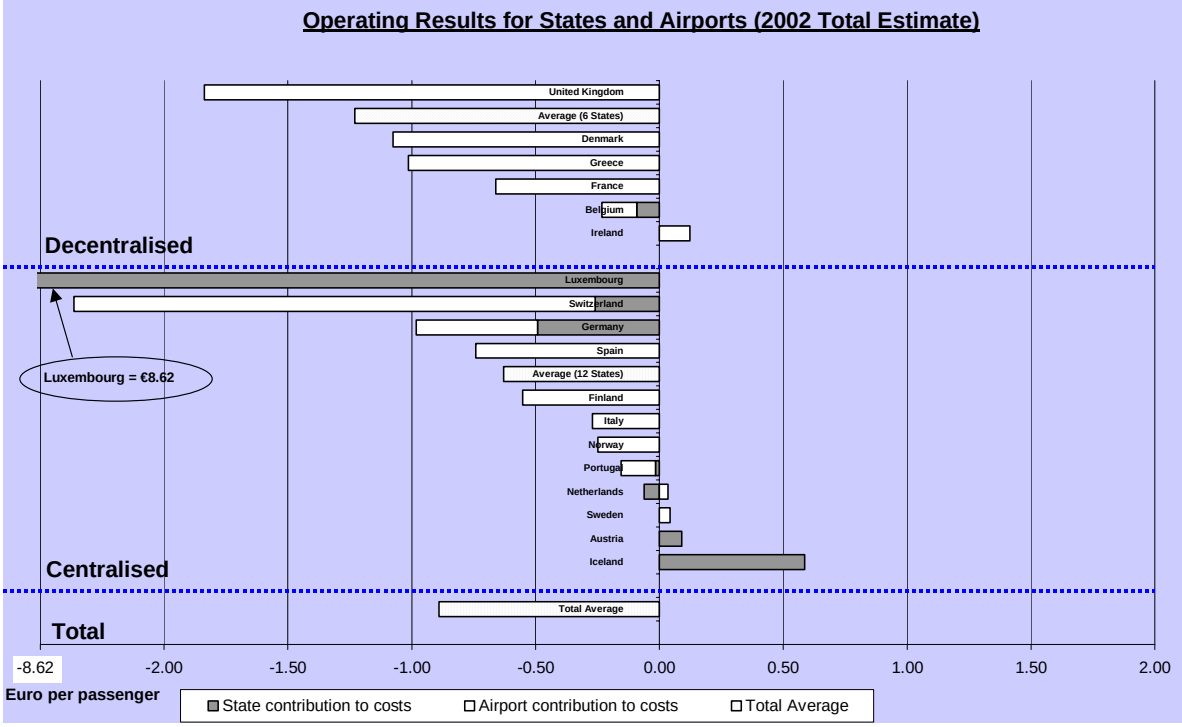

Source: IAA/AviaSolutions estimates based on security questionnaires

**Figure 6-20: Estimated State and airport expenditure (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

**Figure 6-21: Estimated State and airport operating results (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

#### 6.3.1.1 Centralised States

For the centralised States, the majority of security related revenue in 2002 (65%) was derived from passengers by way of State security taxes. No State taxes were levied in 5 of the 12 centralised States (Norway, Luxembourg, Finland, Sweden and Switzerland). The remaining 35% was derived from passengers by way of airport charges.

Finland and Norway were the only States not to levy specific security State taxes or airport charges in 2002. However the Finish CAA introduced a new security charge of €1.36[13] per passenger across all airports in 2003. Similarly, Avinor (the Norwegian airports company), raised its passenger service charge by €1.21 per departing passenger in 2003 to fund additional costs associated with airport security. Subsequently, it introduced a new security charge of €2.56 per passenger[14] from June 2004.

To be consistent with BAA and Copenhagen who also do not levy specific security charges, revenues for Finland and Norway have not been included in the estimations.

In 7 of the other States, income from State taxes made up the majority of security funding. No specific taxes were levied in Spain but the State received 50% of the airport charges as a contribution towards State funded security expenditure.

In Austria, Italy, and Portugal, a proportion of the State tax revenues are shared with the airports to help fund security related activities.

Airports in 5 of the 12 States (Luxembourg, Sweden, Switzerland, Germany and the Netherlands) levied specific security charges.

Passengers in 6 of the 10 States levying security taxes and/or airport charges paid less than €2.00 each in security related taxes and charges. Passengers in Austria, Italy and the Netherlands paid €2.18, €2.19 and €2.55 each in charges and taxes, with passengers in the Germany paying the highest (€3.13) in the 18 States.

Security related expenditure at the airports was primarily financed by the passengers from State taxes and airport charges.

Six of the 12 States under the centralised model had expenditure per passenger of less than circa €1.50 in 2002. Austria was around €2.00 and Italy and the Netherlands close to €2.50; while Germany and Switzerland were around €4.00 per passenger. Luxembourg was the outlier with reported costs of €8.87 per passenger.

At the operating level, the results clearly show that the airports bear the majority of any deficits (with the exception of Luxembourg) with 9 of the 12 States reporting operating losses. This is driven by the working assumption that in the absence of information to the contrary, State taxes were set at a level to recoup any State expenditure incurred. The majority of any deficit or surplus would therefore be the responsibility of the airports in the centralised States.

Luxembourg and Switzerland recorded the largest deficits of €8.62 and €2.36 per passenger respectively, based on the information provided. In Luxembourg, the entire deficit would have to be funded from general taxes. In Switzerland, Germany, the Netherlands and Portugal, a proportion of the deficit was funded from general taxes. In a further 4 States (Spain, Finland, Italy

[13] The Finish CAA introduced the security charge on 1st January 2003 of €2.71 per departing passenger.
[14] Avinor introduced the security charge on 1st June 2004 of NOK 42 or €5.11 per departing passenger.

and Norway), airports were responsible for all of the deficits recorded. In 3 States (Austria, Iceland and Sweden), the estimated levels of charges and expenditure would appear to provide an operating surplus. The surplus ranged from €0.04 in Sweden to €0.59 in Iceland.

The overall operating results for the centralised States indicate a €0.63 deficit per passenger.

It can be concluded that in the centralised States, the passenger is the main funder of security through State taxes and airport charges. In 7 of the States, the airports fund the operating deficit. In 5 of the States, some of the operating deficit would have to be funded from general taxes (including the entire deficit for Luxembourg).

#### 6.3.1.2 Decentralised States

For the decentralised States, the majority of income in 2002 (92%) was derived from passengers by way of airport security charges. The States did not levy any taxes in 4 of the 6 States. In Belgium there was a nominal tax (€0.15 per departing passenger) and in France, a proportion (estimated at 22%) of the Civil Aviation Tax (CAT) goes to fund security related activities.

With the exception of Denmark, 5 of the 6 States levied security charges. In the UK and Denmark, the principal airport operators (BAA and CPH) do not levy specific security charges. Both operators are subject to economic regulation (the 3 London airports – Heathrow, Gatwick and Stansted, as well as Copenhagen) where the allowable overall aeronautical charges take account (to some extent) of the costs related to security provision. For BAA's other 4 UK airports, security costs are remunerated through general aeronautical charges. Other airports in the UK levied specific security charges in 2002.

Denmark confirmed that no specific State taxes or airport charges were levied to recoup the cost of security. However, the Danish Ministry of Transport recently confirmed that an increase in passenger service charges was authorised to offset increasing security costs.

Excluding Denmark where there is no specific tax or charge, the total from taxes and charges in 5 of the 6 States was less than €2.00 per passenger. For Belgium, France and Ireland, the estimated average revenue was between €1.87 and €1.90 per passenger.

Security related expenditure at the airports was primarily financed by passengers via security charges. There was no State reported expenditure apart from Belgium and France. The other States confirmed that they did not participate in any aspect of security financing.

The position in Belgium is likely to be understated, as the expenditure information from the regional airports was incomplete. As such there is likely to be some further aspect of State funding of security activities at regional airports in Belgium.

Five of the 6 States under the decentralised model have per passenger security expenditure of less than €2.50. France is the exception with estimated expenditure of just over €2.50.

At the operating level, the results clearly show that the airports bear the majority of the deficits with 5 of the 6 States (Ireland was the exception with a small surplus) reporting operating losses. Only Belgium had an element of State funded deficit on the assumption that the deficit was funded from general taxation. It is also likely that the State position in Belgium is understated with not all State expenditure at the regional airports included in the estimates.

The UK recorded the largest operating deficits of almost €2.00, with deficits of just over €1.00 per passenger for Greece[15] and Denmark, based on the information provided. The majority of the deficit in the UK and Denmark could be considered to be included in the regulatory price cap set for the major airports in each State. Under this scenario, the overall level of deficit in the UK and Denmark would reduce by up to €320m. As such, in both States it could be argued that the passengers cover the majority of the cost of security at the major airports.

The situation in Greece is less clear in that the Hellenic CAA did not provide any information on the proportion of the Airport Development Tax raised that is used to finance security at regional airports. Athens airport provided charges revenue and expenditure information that shows an operating deficit at the airport.

In Ireland, the estimated levels of charges and expenditure would appear to provide a small operating surplus. Aer Rianta operates under a similar regulatory structure as the large UK airports but a specific security charge is levied. However, all airport charges (including security) cannot exceed the allowable per passenger total charges cap at each airport (Dublin, Shannon and Cork). As a result, the security charges revenues may be overstated as a proportion of the overall allowable charge per passenger.

In France, the levying of security charges was widespread across airports. Combined with the contribution from the French Civil Aviation tax, the total weighted average passenger charge of €1.90 was the highest for the decentralised States in 2002. It also should be noted that Aéroports de Paris, the largest French operator significantly increased security charges in 2003 having reported an operating deficit from the provision of security in 2002. France also had the highest estimated expenditure per passenger in 2002 of all the decentralised States.

The overall operating results for the decentralised States indicate that of the €1.23 deficit per passenger, the State contribution was negligible at €0.01 with the airports funding €1.22 per passenger.

With the exception of Belgium with an estimated State deficit of €0.09 per passenger, no other State under the decentralised model reported a deficit that would have to be funded from general taxation income.

It can be concluded that in the decentralised States, the passenger is the main funder of security through airport charges. Airports funded the operating deficit in 5 of the 6 States. However, the true position in the UK and Denmark is likely to be closer to a neutral funding position given the regulatory structure of the major airports.

Ireland was the only State to have a small operating surplus based on the information provided. However, it is likely that the security charge related revenues may be overstated as a proportion of the allowable charge cap.

[15] Greece refers to Athens International Airport primarily

#### 6.3.1.3 Taxes and charges competitive issues conclusions

- Three States (Denmark, Finland and Norway) did not report levying any security related taxes and/or airport charges during 2002.
- In 11 of the 15 States where security related taxes and/or airport charges were levied in 2002 the total revenue generated from State taxes and charges was relatively consistent with total burden on the passenger of under €2.00.
- Of these 11 States, 6 had taxes and charges ranging up to €1.00 (Greece, Iceland, Luxembourg, Spain, Sweden and the UK); 2 ranged from €1.00 to €1.50 (Portugal and Switzerland); 3 ranged from €1.50 to €2.00 (Belgium, France and Ireland).
- By contrast, 4 States (Austria, Germany, Italy and the Netherlands) had estimated passenger burdens ranging from €2.18 to €3.13.
- There was no clear distinction in the levels of revenue generated per passenger under either of the models with 5 of the decentralised model States charging passengers a total of less than €2.00 compared to 6 States in the centralised model. The 4 highest charging States were all in the centralised model.
- Passengers in the 4 highest charging States were paying considerably more in specific security related State taxes and airport charges than passengers in the other States.
- The actual passenger charges related to security may also be contained in general aeronautical charges at a number of airports, including those large regulated airports in Denmark and the UK. This lack of transparent application of security charges distorts the overall understanding of the revenues actually generated to fund security at airports across Europe.
- The expenditure per passenger on security related activities provided by the stakeholders ranged from less than €1.00 in 4 States (Finland, Iceland, Norway and Sweden) to less than €2.00 in a further 5 States (Denmark, Greece, Ireland, Portugal and Spain). A further 4 States had expenditure up to circa €2.50 (Austria, Belgium, Italy and the UK) and another 2 States with expenditure just over €2.50 (France and the Netherlands). Germany and Switzerland recorded average expenditure of around €4.00 per passenger. Luxembourg was the outlier with a total expenditure of €8.87.
- Germany, Austria, Italy and the Netherlands had some of the highest levels of expenditure to match the high levels of revenues.
- No clear conclusions can be drawn as to whether either of the models produces lower overall levels of expenditure. In 2002, the full requirements of Regulation (EC) No 2320/2002 had not yet been fully complied with in a number of States.
- What does emerge is that the 4 States with the highest levels of expenditure were all in the centralised model (with average cost above €2.50 per passenger).
- At the operating level, it is clear that the specific State aviation security taxes and airport security charges do not fully meet the costs of aviation security in 14 of the 18 States. Apart from Luxembourg with the largest per passenger operating deficit of €8.62, 4 other States had deficits between €1.01 and €2.36 (Denmark, Greece, Switzerland and the UK).

- A further 9 States had deficits of less than €1.00 per passenger (Belgium, France, Germany, the Netherlands, Norway, Portugal, Finland, Italy and Spain).

- The remaining 4 States posted small operating surpluses in 2002, ranging between €0.04 and €0.12 for Austria, Ireland and Sweden. Iceland posted the largest surplus with €0.59 per passenger.

- Where revenues from specific State security taxes were insufficient to meet State expenditure, funding was assumed to be provided by the general taxpayer in that State. The analysis has been developed on the basis that unless otherwise advised, security taxes are set at a level to meet State security related expenditure.

- Some level of funding from the general taxpayer was found to be required in 6 States with the largest funding from general sources in Luxembourg at €8.62 per passenger. The remaining 5 States (Belgium, Germany, Portugal, the Netherlands and Switzerland) ranged from €0.02 to €0.49 per passenger.

- The balance of funding between the passenger and the general taxpayer in each State is therefore weighted heavily towards funding by the passenger. In 12 of the 13 States with operating deficits (with the exception of Luxembourg), the airports fund the major proportion of the deficit. The issue of how much security related revenue is raised from general aeronautical charges distorts this issue as a number of airports do not levy specific security charges but have raised their general charges in 2003 specifically to meet increased security costs.

#### 6.3.1.4 Summary of results by State

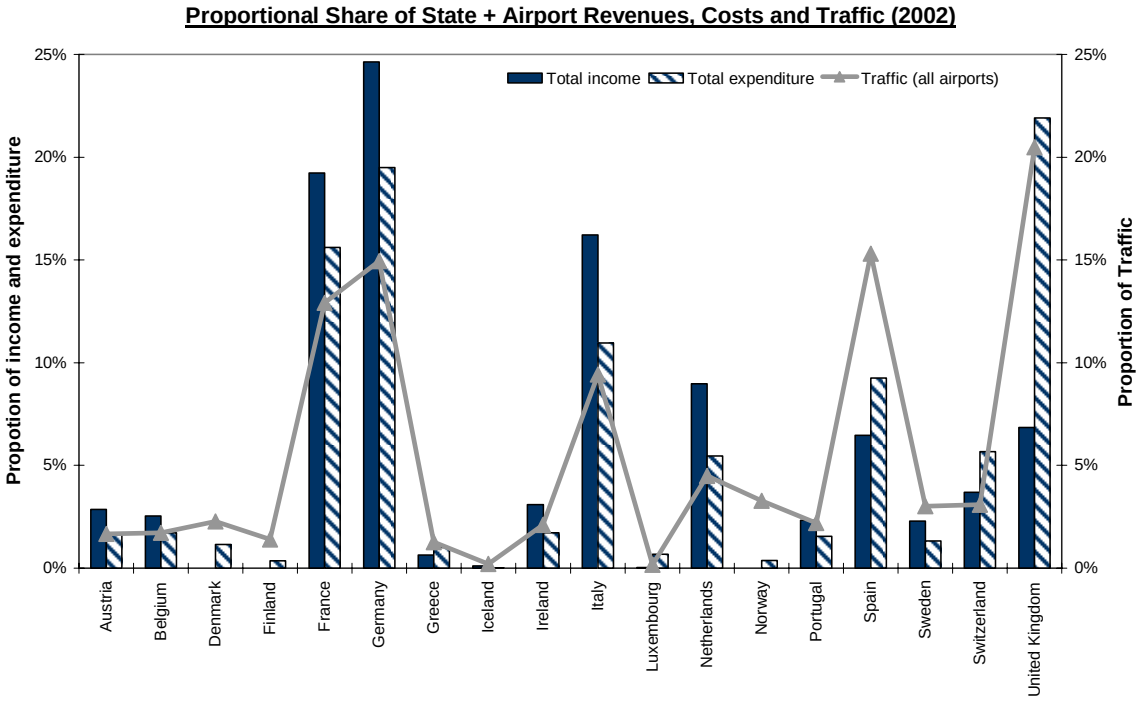
An outline of the main features of each State's operating position for 2002 is included at Appendix F.

### 6.3.2 Comparison of the traffic share versus revenues and expenditure

The proportional share of combined 2002 State and airport revenues, expenditure and traffic was compared to see if any relationships existed for the 18 States.

There would appear to be good correlation between a State's proportion of the total traffic for the 18 States, and its proportion of both total security revenue and expenditure in 9 of the States (Austria, Belgium, Greece, Iceland, Ireland, Luxembourg, Portugal, Sweden, and Switzerland).

**Figure 6-22: Share of total security revenue and expenditure versus traffic (2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

Exceptions include Germany, France, Italy and the Netherlands that have revenue and expenditure variations. Germany had 25% of revenue from 15% of the traffic; France generated 19% of total revenue from 13% of total traffic; Italy recorded a share of 16% and 9% of income and traffic respectively; while the Netherlands had 9% of revenues from only 5% of the traffic.

In terms of State expenditure, Germany accounted for 20% of combined State and airport expenditures from 15% of traffic. Similarly, France accounted for 16% and 13% of income and traffic respectively. The expenditure versus share of traffic in Italy and the Netherlands showed a much better correlation.

The UK accounts for 20% of total traffic but only reported generating 7% of total security revenues. This reinforces the view that aviation security activities are funded though general aeronautical charges via the regulatory framework price caps at the larger airports. The share of the UK's expenditure correlates closely with traffic share. A similar picture emerged in Denmark.

Overall there is a good fit between the relative proportions of security revenue generation, expenditure and traffic for the 18 States. Whilst there are variances in revenues and/or expenditure versus traffic share in a number of the 18 States, the overall relationships would appear to suggest that share of total revenues and costs should relate to traffic share for the majority of the States.

### 6.3.3 Elasticity of demand assessment

In theory, passenger elasticity of demand would imply that an increase in passenger security costs through additional State taxation and airport charges is likely to have a dampening effect on

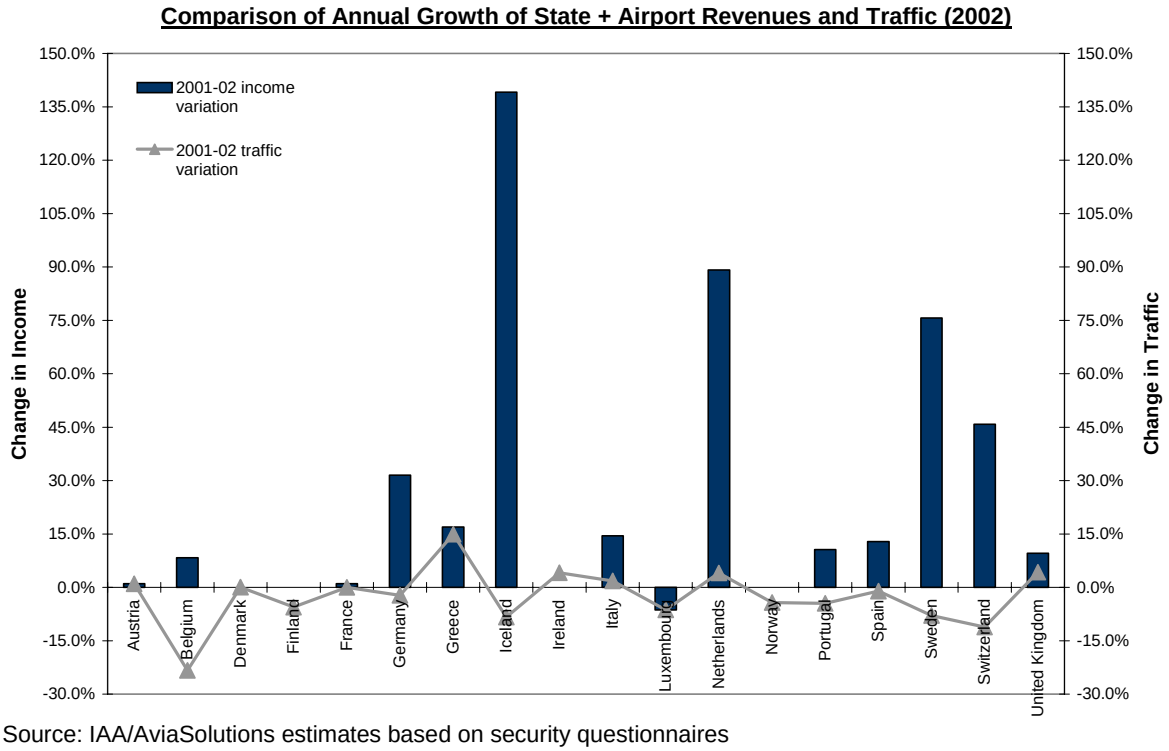
passenger demand. However, it is always very difficult to isolate the impact of one variable especially as this was a time of significant disruption in the civil aviation sector.

In 2002, combined State and airport income from passenger related aviation security taxes and charges for the 18 States increased by an estimated 24% over the previous year to €1.2bn. However, total estimated traffic declined by around 1.6%, which would indicate at a macro level that passenger elasticity of demand would not appear to be overly sensitive to increased security costs.

Lower traffic in 2002 would have been driven by a number of variables including global economic downturn, threats of terrorism and war in Afghanistan. However, the additional State taxes and airport charges increases may have had a contributory effect on the overall decrease. In the Netherlands, traffic grew 4% year-on-year when there was an 89% increase in State and airport revenues through increased levies on passengers. A contrasting position is evident in Belgium, where traffic declined by 23% when levies increased by 8%.

Larger traffic reductions in Belgium and Switzerland can be explained by the failures of the main carriers (Sabena and Swissair) rather than any direct impact of increased security taxes or charges.

**Figure 6-23: State and airport revenue variation versus traffic (2001 vs. 2002)**




Source: IAA/AviaSolutions estimates based on security questionnaires

It is always very difficult to isolate the impact of one variable where multi-variants combine to produce an outcome. However, given the financial pressures on airlines and airports during 2002, any increases in security costs would have had a negative impact on airport and airline profitability. Further analysis of this aspect is outside the scope of this study.

### 6.3.4 Proportion of security taxes and charges on air fares

This section compares the average security taxes and charges levied on passengers by the States and airports during 2002 across 17 of the 18 States. Iceland is not included as part of this comparison as no average fare data was available for Keflavik airport.

This comparison estimates the proportion of State security taxes and airport security charges to the average airfares paid by passengers on routes from the 17 States. The routes include a range of destinations and fare type:

- **Intra-European routes**: for both economy and business class fares.
- **Long haul routes**: from European cities to New York.
- **Domestic routes and no frills carriers.**

The analysis is based on the average airfares for economy and business class travel for a sample of routes during the 4th quarter of 2002 and the State taxes and airport charges applicable in each State in 2003. The airfares data was sourced from American Express[16].

In addition to the average fares paid by passengers on scheduled services, average fares were also estimated for two established no frills carriers (easyJet and Ryanair). While the average fares for scheduled carriers were available on a route basis, the system wide average fares for the no frills carriers were used given the predominant short sector length nature of their operations.

Details of the security taxes and airport charges and the proportion that these represent of the average economy and business class fares for each of the routes are included at Appendix G.

#### 6.3.4.1 Intra-European routes

For comparison purposes, a typical route was chosen for each of the 14 States where taxes and charges are levied. The following figure outlines the average one-way fare for economy and business class during the last quarter of 2002 for each of the chosen routes.

[16] American Express European Corporate Travel Index – for Quarter 4 of 2002.

**Figure 6-24: Average Intra-European economy and business class fares (2002)**

| Intra-Europe Air Fares | | | Average one-way fare (€) 2nd Quarter 2003 | |
|---|---|---|---|---|
| State | Origin | Destination | Economy | Business |
| Austria | Vienna | Zurich | 426 | 547 |
| Belgium | Brussels | Frankfurt | 301 | 608 |
| Finland | Helsinki | Amsterdam | 480 | 595 |
| France | Paris | London | 162 | 286 |
| Germany | Frankfurt | Milan | 347 | 371 |
| Greece | Athens | Paris | 324 | 650 |
| Ireland | Dublin | London | 125 | 261 |
| Italy | Milan | Paris | 374 | 441 |
| Luxembourg | Luxembourg | Paris | 215 | 253 |
| Netherlands | Amsterdam | Frankfurt | 219 | 272 |
| Portugal | Lisbon | Madrid | 215 | 280 |
| Spain | Barcelona | Brussels | 146 | n/a |
| Sweden | Stockholm | London | 346 | 535 |
| Switzerland | Zurich | Paris | 297 | 396 |

Source: American Express European Corporate Travel Index

For each route, the proportion of State security taxes and airport charges of the average fare was calculated for economy and business classes.

No specific security taxes and airport charges are applicable for routes departing from Copenhagen, London (Heathrow) and Oslo (Gardermoen), therefore these routes have not been included in the analysis.

**Economy Class**

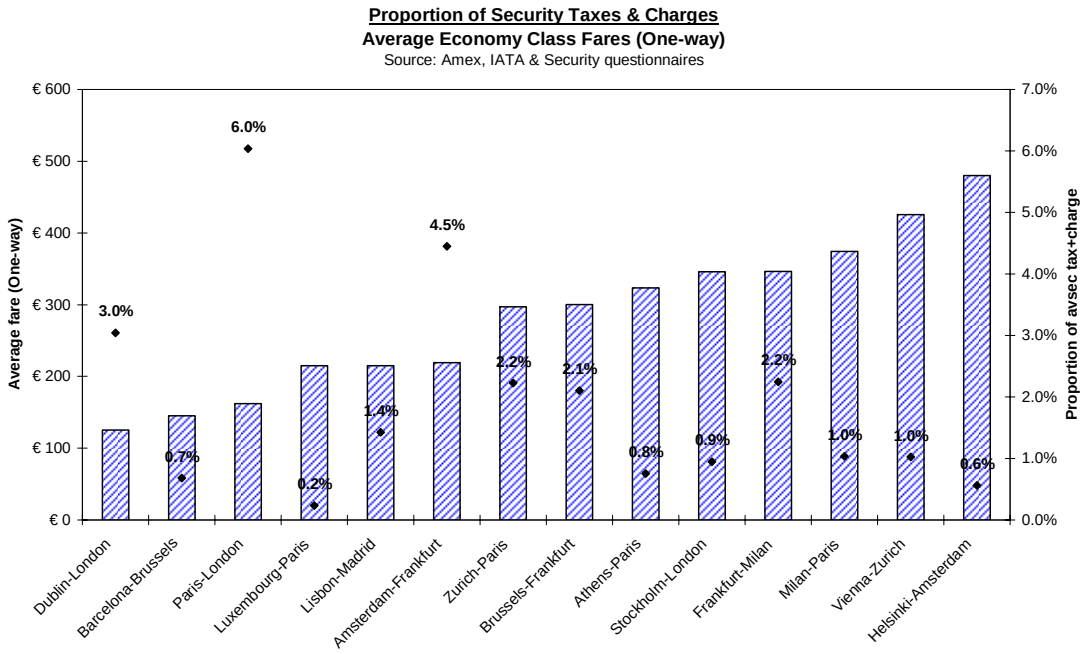
From the sample of 14 routes analysed, the combined State security taxes and airport charges represent less than 1% of the average one way fare for 5 routes, between 1% and 2% for a further 6 routes and between 3% and 6% for the remaining 3 routes.

The proportion of security taxes and/or charges is higher on the routes originating in Dublin, Paris and Amsterdam. These results from a combination of factors, either lower average fares (for the Dublin route) and/or relatively high security taxes and airport charges at Paris CDG and Schiphol airports in 2003.

In Paris, the combination of French CAT[17] and airport security charge levied by Aéroports de Paris totalled €9.77 per departing passenger; whilst in Amsterdam, the combination of security taxes and charges equated to €9.75 per departing passenger assuming the passenger is commencing the trip at Schiphol[18].

[17] 22% of total Civil Aviation Tax allocated as security tax (i.e. €3.92 x 22% and €6.66 x 22% for intra-EU and Non-EU passengers).
[18] Schiphol tax and charges prior to 31st March 2003.

**Figure 6-25: Taxes and charges as a proportion of intra-European economy fares (2002)**




Source: IAA/AviaSolutions estimates based on American Express European Corporate Travel Index

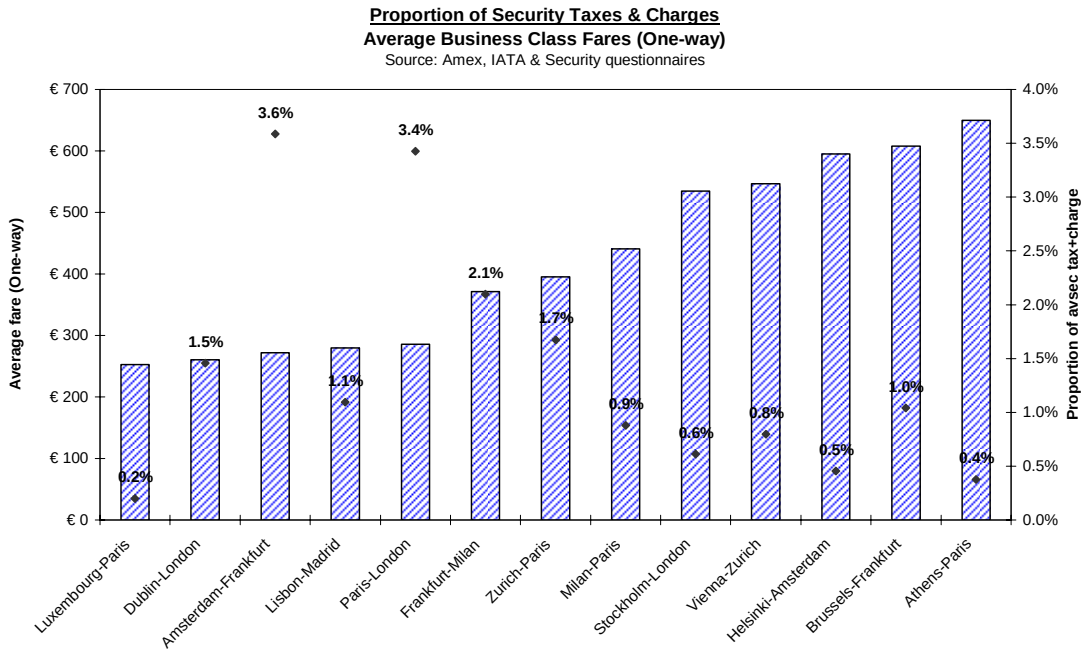
### Business Class

The same levels of security taxes and airport charges are generally levied on all passengers regardless of the class of travel. However, the relative proportion of security taxes and charges of average business class fares reduces considerably.

From the sample of routes analysed, security taxes and charges equate to less than 1% for 6 routes and less than 2.1% for a further 5 routes.

The only two exceptions are routes originating in Amsterdam and Paris where security taxes and charges represent 3.6% and 3.4% of the average business class fare on Amsterdam-Frankfurt and Paris-London routes respectively.

**Figure 6-26: Taxes and charges as proportion of intra-European business fares (2002)**




Source: IAA/AviaSolutions estimates based on American Express European Corporate Travel Index

### 6.3.4.2 Long-haul routes

To estimate the impact of security taxes and charges on long-haul travel, the cost of air travel between 13 European gateways and New York was analysed. The average fares for both economy and business class travel are shown below.

**Figure 6-27: Average economy and business class fares to New York (2002)**

| Europe-New York Air Fares | | | Average one-way fare (€) 2nd Quarter 2003 | |
|---|---|---|---|---|
| **State** | **Origin** | **Destination** | **Economy** | **Business** |
| Austria | Vienna | New York | 865 | 1,557 |
| Belgium | Brussels | New York | 795 | 2,860 |
| Finland | Helsinki | New York | 964 | 1,554 |
| France | Paris | New York | 855 | 2,374 |
| Germany | Frankfurt | New York | 1,315 | 1,912 |
| Greece | Athens | New York | 561 | 1,446 |
| Ireland | Dublin | New York | 732 | 2,087 |
| Italy | Milan | New York | 789 | 1,950 |
| Netherlands | Amsterdam | New York | 1,033 | 2,075 |
| Portugal | Lisbon | New York | 726 | 1,684 |
| Spain | Madrid | New York | 751 | 1,966 |
| Sweden | Stockholm | New York | 733 | 1,366 |
| Switzerland | Zurich | New York | 1,421 | 1,933 |

Source: American Express European Corporate Travel Index

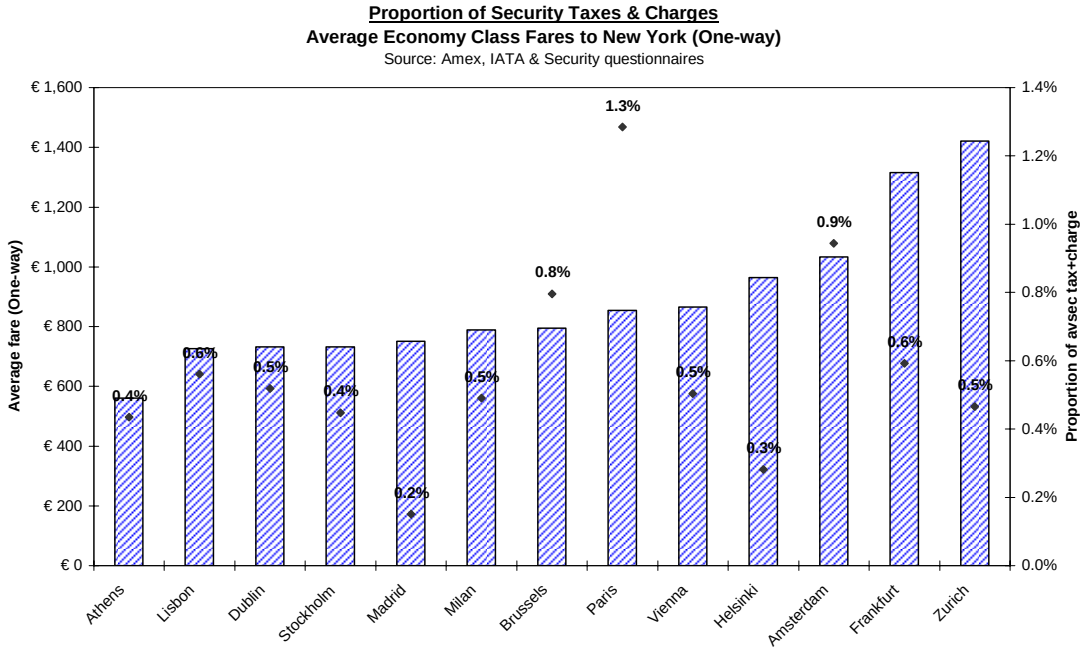
Security taxes and/or airport charges may vary between European and non-European air travel. Some States and/or airports (France, Portugal and Spain) levy different taxes/charges according to the destination of the traveller (i.e. Schengen, EU Non-Schengen, Non-EU).

The French Civil Aviation Tax is €3.92 and €6.66 per departing passenger for intra-EU and non-EU travel respectively. The Portuguese CAA (INAC) levies taxes of €2.39 and €4.07 per departing passenger travelling to another Schengen and Non-EU destination respectively.

Despite the increased levy that may apply in some States, the combination of security taxes and charges represented less than 1% for 12 of the 13 economy routes. The exception was Paris-New York where the combined security tax and airport charge totalled €10.98 per departing passenger, 1.3% of the average one way air fare between Paris and New York in late 2002.

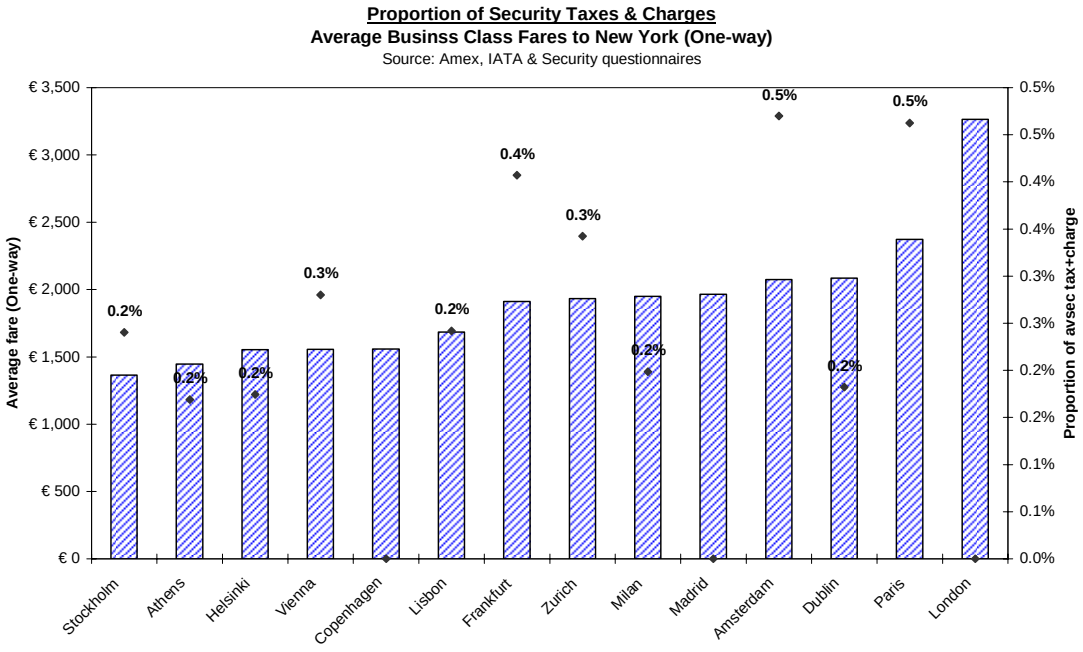
No specific security taxes and airport charges are applicable for routes departing from Copenhagen, London (Heathrow) and Oslo (Gardermoen) therefore these routes have been excluded from the analysis.

**Figure 6-28: Taxes and charges as proportion of economy fares to New York (2002)**




Source: IAA/AviaSolutions estimates based on American Express European Corporate Travel Index

**Figure 6-29: Taxes and charges as proportion of business fares to New York (2002)**




Source: IAA/AviaSolutions estimates based on American Express European Corporate Travel Index

The weight of security taxes and airport charges on average business class fares to New York is minimal at less than 0.5% of the fare for all 13 routes analysed.

### 6.3.4.3 Domestic routes and no-frills carriers

The impact of security taxes and airport charges is more evident on two specific traffic segments:

- Domestic routes.
- No-frills carriers.

Average domestic fares tend to be lower than intra-European fares due to a combination of factors (more competition, lower yields, shorter sector lengths, etc). However, security taxes and airport charges applicable to domestic routes are frequently at the same level as intra-European routes.

The impact of security taxes and airport charges on domestic fares was estimated for a sample of 8 trunk routes.

**Figure 6-30: Average European domestic air fares (2002)**

| Domestic Air Fares | | | Average one-way fare (€) 4th Quarter 2002 | |
|---|---|---|---|---|
| State | Origin | Destination | Economy | Business |
| France | Paris | Nice | 189 | 273 |
| Germany | Frankfurt | Berlin | 138 | 231 |
| Italy | Rome | Milan | 120 | n/a |
| Norway | Oslo | Bergen | 69 | 173 |
| Portugal | Lisbon | Oporto | 88 | 105 |
| Spain | Barcelona | Madrid | 101 | n/a |
| Switzerland | Zurich | Geneva | 110 | 170 |
| United Kingdom | London | Edinburgh | 94 | 223 |

Source: American Express European Corporate Travel Index

The average fare for no frills carriers is generally lower than fares achieved by scheduled carriers for intra European routes. The following figure outlines the average fares for 2 established no frills carriers in 2002.

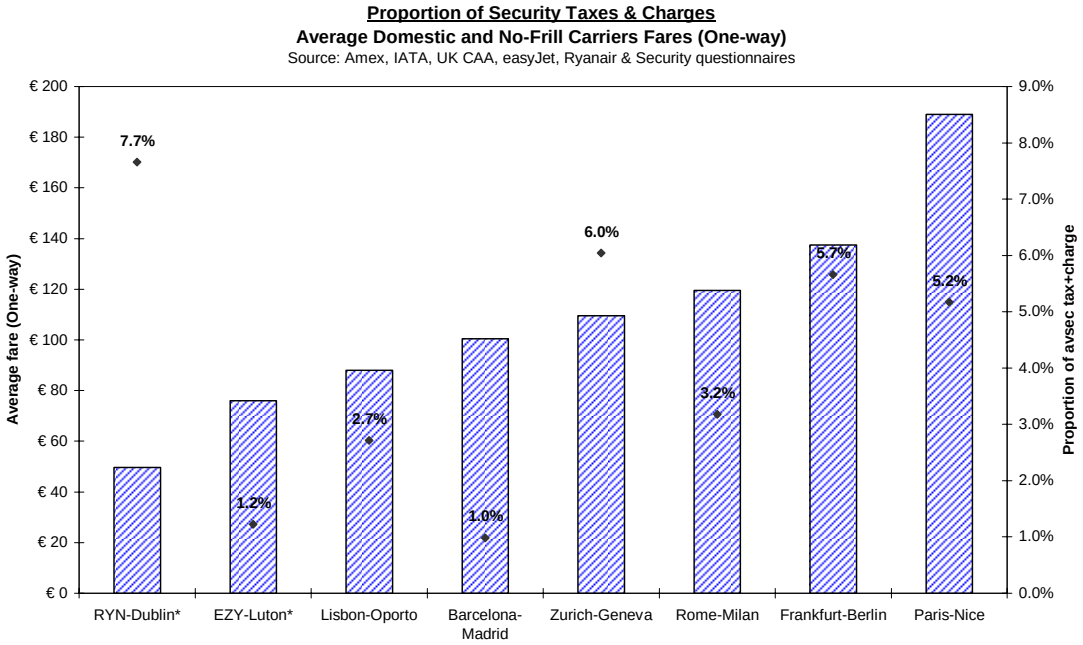
**Figure 6-31: Average fare recorded by no frills carriers (2002)**

| No-frills Carrier Average Air Fares | | | Average one-way fare (€) | |
|---|---|---|---|---|
| Carrier | | | Economy | Business |
| easyJet | Average fare | FY 2002 | 76 | n/a |
| Ryanair | Average fare | FY 2003 | 50 | n/a |

Source: airline annual reports, UK CAA

For comparison purposes, the security taxes and airport charges applicable at the carriers' home bases (London-Luton and Dublin for easyJet and Ryanair respectively have been included in the analysis.

**Figure 6-32: Taxes and charges as a proportion of European domestic and no frills carrier fares (2002)**




Note: (*) Average system-wide fares in 2002
Source: IAA/AviaSolutions estimates based on American Express European Corporate Travel Index, airline accounts, UK CAA and security questionnaire responses.

For domestic routes (with the exception of Barcelona-Madrid) security taxes and airport charges range between 1% and 3.2% of the average fare. For some routes, such as Zurich-Geneva, Frankfurt-Berlin and Paris-Nice, the combination of security related levies represents over 5% of the average fare.

For no-frills carriers, the combination of security taxes and airports charges shows a mixed picture. For easyJet, security costs at its home base airport (Luton) represent 1.2% of its average system-wide fare. For Ryanair security charges at Dublin airport represents 7.7% of its average system-wide fare.

However, if different bases are taken into consideration the results will change. For example, Ryanair passengers do not pay any security related charges at its main London-Stansted airport, as BAA does not levy any specific security related charges. On the other hand, every departing passenger on an easyJet flight out of Schiphol airport would have paid €9.75 representing almost 13% of the carriers average one-way fare in 2002.

#### 6.3.4.4 Conclusions

From comparing the security taxes and airport related charges versus the average fares for economy and business class travel at a sample of European and long-haul routes, the following conclusions can be drawn:

- The impact of security taxes and charges on the sample of long-haul routes represents less than 1% of the average economy class fare and less than 0.5% of the business class average fare.

- For intra-European travel, the combination of security taxes and airport charges represents between 1% and 2% of the average fare.

- For domestic routes, security levies represent between 3% and 6% of the cost of the sample of routes, which is significantly higher than those averaged by intra-European routes.

- Due to the nature of the no frills business model (low-fare and short sectors), the proportion of security taxes and charges paid by passengers could be significantly higher than for any of the other route samples analysed. However, this may depend on the originating point of travel (State and/or airport). For example, an easyJet passenger would have been charged 1.2% of the average fare when departing from London-Luton airport, but this could have risen to as much as 13% when departing from Amsterdam Schiphol.

Although there is no evidence that security taxes and airport charges represent a deterrent to air travel demand, these could represent a significant proportional cost for passengers particularly when travelling on domestic routes and/or no-frills carriers.