

Economic Impacts, Costs and Benefits of Aviation

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The Issues...

What are the economic impacts, costs and benefits of aviation?

Does the economy gain/lose from imposing measures which lessen emissions? Impacts on GDP, National Income, Net Benefits?

Comparing results and suggestions

Aviation: Benefits and Costs

- **Benefits and costs to direct suppliers and users: profits, consumer benefits**
- **Taxes benefit to economy; subsidies a cost**
- **Negative externalities: greenhouse and other emissions, noise**
- **Positive externalities: wider economic benefits (WEBs), often related to connectivity benefits (analysis of these is in the early stages, and results differ widely)**

How is Aviation Taxed/ Discouraged?

- **Undertaxed?**
- **Little VAT, little fuel tax**
- **Some ticket taxes (UK, Germany)**
- **Aviation is part of EU ETS, though not for extra EU flights; discourages output and emissions**
- **Ideally:**
 - Tax to raise revenue;
 - To correct externalities (emissions), and
 - Subsidise to encourage WEBs
- **Netherlands government Conference last week on aviation taxes**

Impacts, Costs and Benefits

- **Impacts: a more general term – effect of a tax policy on GDP, employment, exports, taxes**
- **Costs and benefits- how much better off the economy is as a result of a tax policy**
- **I.e., a matter of a cost benefit analysis (CBA)**
- **Some (but not all) models can do the lot- impact on GDP, Jobs, costs, benefits**
- **What is the question?**
 - How much bigger/smaller is the economy (impact on GDP)?
 - What is the net benefit/cost?

Impact Models

- **Very large number of studies use an economic impact analysis (EIA) approach, using an Input – Output (I-O) model**
- **These look at the input and output relationships only**
- **But there is growing use of computable general equilibrium (CGE) models (used a lot in work for the EC)**
- **These look at the whole economy- effects on consumption, taxes, etc**
- **And capture the interrelationships between sectors, households**
- **How do we measure the impact of an measures to reduce emissions, such as an aviation tax, on National Income, benefits etc?**

Using CGE Models to Measure Impacts of Aviation Taxes

- **Changes take time- possibly a temporary rise on unemployment (small)**
- **There can be secular unemployment – tax rises may depress GDP, net benefits (can be large)**
- **Aviation taxes impact on tourism – but if there is a tax export effect, National Income and net benefits will rise (significant)**
- **Existing tax system may undertax aviation- higher taxes will increase National Income and net benefits (small)**
- **Negative externalities like emissions can be estimated and costed. The benefits are global not national (large or small?)**
- **Aviation taxes reduce the wider economic benefits of aviation- very controversial! (big? Small?)**



Empirical Studies of Aviation Tax Impacts

- Could study other policies – e.g. ETS, biofuel subsidies
- Very many Economic Impact Analysis studies which predict the end of the world (except for recent study which projects more or less no effect, as expected using this technique)
- Two CGE studies, Australian (Forsyth 2011 and 2014) and UK (PwC 2013) (for a group of airlines)
- Australian study- estimates that Australia *gains* from a tax
- UK study- estimates that the UK *loses*
- Who is right?

Explanations

- **Aust study assumes no effect on jobs (mining boom), UK study has a big effect on lowering GDP**
- **Aust study assumes no WEBs, UK study assumes very big WEBs**
- **Both models measure effect on inbound and outbound tourism- net effect on GDP and net benefits small**
- **The tax export effect- moderate plus for home econ in Aust study; not documented in UK study**
- **Lesson for observers: check why employment changes, how big are WEBs, and is there a tax export effect?**

Suggestions

- **How big are the net impacts and benefits of aviation, and the costs of constraining it?**
- **Use a reliable model to estimate impacts and but also benefits/costs of emissions reduction policies**
- **Explore what is driving the results- e.g. effect on jobs?**
- **Estimate the net effect of emissions from all industries (not just aviation) as a result of the tax (Green Model)**
- **Improve reliability of estimates of WEB benefits**

Merci/Dank U!

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