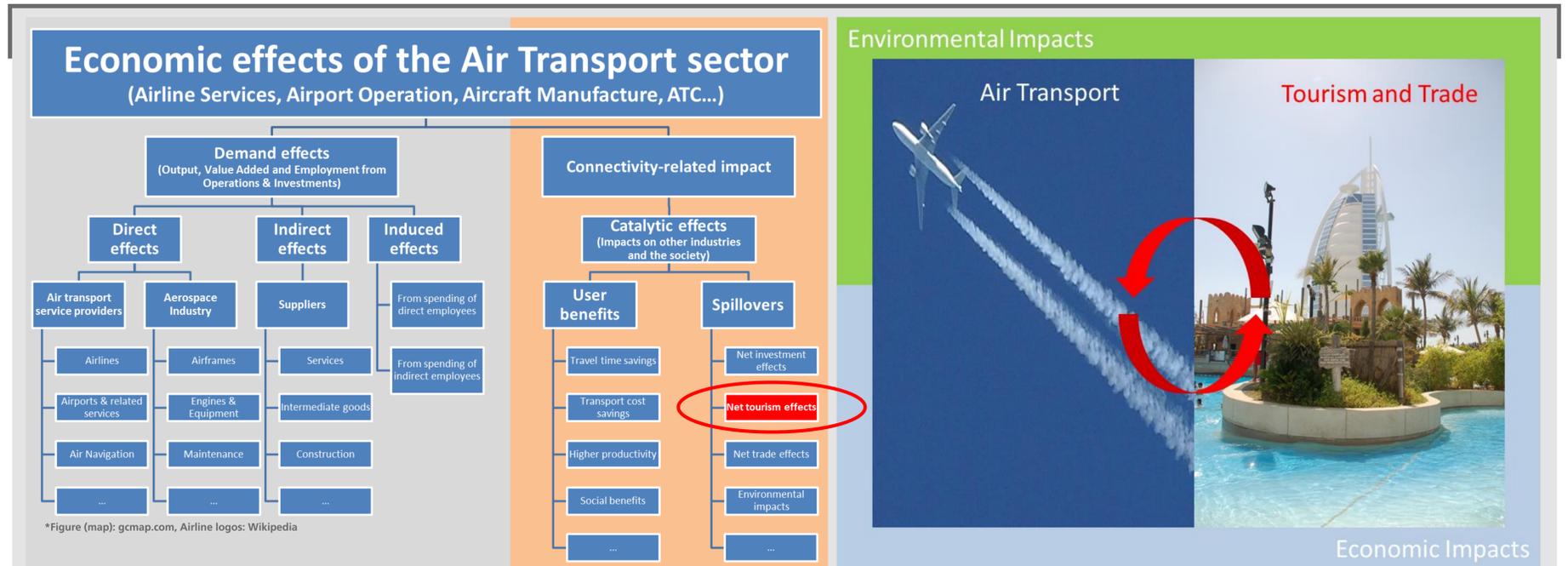


Economic benefits of the air transport sector: The role of tourism-related effects



Background

Air transport is often associated with its **negative externalities**, such as noise, carbon and non-carbon emissions. This is also why investments in aviation infrastructures are often blocked by opponents, especially in the Western world.

To counteract, many aviation industry players have commissioned studies that point to the sector's **economic benefits**. Such studies typically examine „classic“ **demand effects**, such as **employment** and **gross value added**, that occur in the industry itself and throughout its supply chain. These effects can be estimated by using **input-output models** or **multipliers**. While the results (“X Million jobs in aviation”) may sound impressive at the political level, they are only of limited use, for example, for public investment decisions as they would support “**gold plating**” (“the higher the investment, the higher its employment effect”) and do not consider alternatives.

Additional effects, which are often referred to as „**wider economic benefits**“ or „**catalytic effects**“, are not systematically collected but receive growing attention both at the political and scientific levels. The literature contains several, partly **conflicting definitions** of, e.g., catalytic effects. Cooper & Smith (2005) define them as „**net economic effects** ... resulting from the **contribution of air transport to tourism and trade** (demand-side effects) and the long-run **contribution to productivity and GDP** of growth in air transport usage (the supply-side performance of the economy)“. Other authors also look at, e.g., **user benefits** (like **travel-time savings**) or **social effects** like **interaction benefits**.

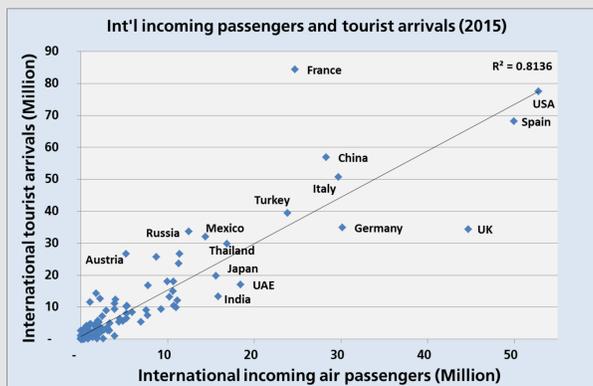
A common understanding of how to approach such effects is still pending, but all definitions have in common that they do not directly stem from the economic performance of the air transport sector value chain but from the local, regional, national or global **connectivity** provided by the sector. For a good overview of air transport connectivity measurement, see, e.g. Burghouwt & Redondi (2013).

We look at **the relationship between air transport and tourism**, and how such effects are dealt with in existing studies on the sector's impacts.

Air transport and Tourism

Tourism effects seem to be referred to as the most common example for **externalities of the air transport sector** beyond its own value chain. This is because a **close relationship between air transport and tourism** sounds obvious, especially for countries with weak land transport links.

Still, it is not straightforward to assess the exact relationship between the two: E.g., publicly available air transport statistics usually do not differentiate between **incoming and outgoing passengers**. To identify incoming air passenger volumes, we use actual data from computer reservation systems provided by Sabre Market Intelligence, which allows for data splits by point of origin. At the country level, we map these numbers against overall **tourist arrivals** (as reported by UNWTO) and find a strong correlation between the two. This is in line with earlier findings of, e.g., Wittmer & Bieger (2006) or Graham, Papatheodorou & Forsyth (2008).



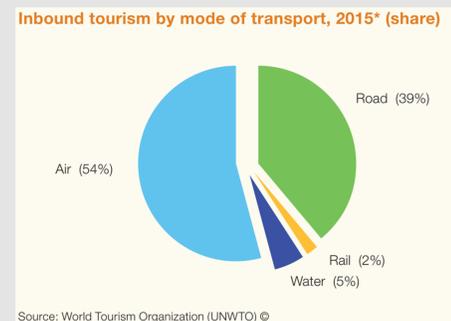
On global average, for 2015, the data indicate **1.7 int'l tourist arrivals for each internationally arriving air passenger**.

Countries with presumably high shares of outbound traffic, like the UK (0.8), Germany (1.2), the Netherlands (1.4), Japan (1.3) or the USA (1.5) generate less than average tourist arrivals. This does also apply to, e.g., India (0.8) and the UAE (0.9) where significant portions of incoming air travellers may travel for other reason than tourism or business, such as expats returning home.

In contrast, countries like Turkey (1.7), Italy (1.7), Greece (2.1), Mexico (2.2) or France (3.4) have a relatively powerful incoming tourism sector compared to inbound air transport. For some countries, some data issues may apply, which may blur the results (e.g., overestimation of incoming air

passengers due to non-consideration of self-connecting passengers; counting of day visitors; definition of tourists and non-tourists...).

At the worldwide level, according to the WTO, some 54% of internationally arriving tourists are estimated to arrive by plane.



Assessment of tourism effects in the context of catalytic effects in the literature

We have evaluated existing studies on regional airport effects in English and German language to assess which kinds of wider economic benefits are commonly dealt with, and how. We found that:

- Studies differ with regard to their approaches and definitions
- Indicators for catalytic effects, and related assessment methodologies, include: travel-time savings; regional tourist spending; productivity of firms; survey-based, qualitative assessment of location factors by firm, ...
- In many cases, only positive (inbound effects) are considered. This is particularly the case when authors try to quantify tourism effects (e.g., (e.g., Hamburg Airport 2017; Muenster Airport, 2013; Swiss airports, 2007; European Airports, 2004...)).

Key References

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Pictures

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