

*The Importance of the Austrian Air Transport Sector
for the National Economy*

Executive Summary

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This paper examines the significance of the air transport sector for the Austrian economy. It mainly focuses on the impact on the upstream supplier networks in the supply chain. For the sake of a better overview, the air transport industry has been divided into three categories: the "core area" covers "everything that flies" as well as airports and air traffic control. The "narrow definition" includes "the core area and everything that is needed for flying". Finally, the "broad definition" is defined to comprise "the narrow definition and everything that needs air traffic". The narrow definition therefore includes e.g. manufacturers of aircraft components, while the broad definition, for instance, also includes catering services at airports.

All three definitions have been examined for their direct, indirect, and induced effects. The first are the effects that occur in the companies actually analysed, i.e. in the air transport industry. The indirect effects are the effects in upstream supplier networks. Both areas provide jobs and generate an income for employees that is higher than what they would receive if they were unemployed. As they spend one part of this income on consumption in Austria, further effects are triggered which are referred to as "induced".

Gross value added

The Gross value added of the individual definitions and its breakdown can be seen in the following table. The direct Gross value added of the broad definition totals more than 2.9 billion euros. The effects of the upstream suppliers add another 2.0 billion Euro. Finally, an additional EUR 270 million in Gross value added is generated by the expenditures of the persons employed.

Table 1: Gross value added effects in million euros

	Core definition	Narrow definition	Broad definition
Direct effect	1,602	2,674	2,964
Indirect effect	1,317	1,925	2,048
Induced effect	159	249	270
Total effect	3,078	4,848	5,282

Source: *Economica*.

Employment

Direct employment in aviation-related companies totals 29,200 persons. A further 20,000 persons are employed in the upstream supplier networks (indirect effect), and almost 6,800 persons more are generated by salary-induced effects.

Table 2: Employment effects in number of persons

	Core definition	Narrow definition	Broad definition
Direct effect	14.808	27.671	29.206
Indirect effect	11.770	18.728	20.047
Induced effect	3.953	6.263	6.791
Total effect	30.531	52.662	56.044

Source: *Economica*.

Regional effects

For the sake of clarity regarding regional effects, only the total effect of the broad definition is displayed in the respective proportions of the federal states.

Table 3: Distribution of the total Gross value added effects among the federal states (broad definition - direct, indirect and induced)

Federal state	direct	indirect	induced	total
Burgenland	1%	2%	1%	1%
Carinthia	1%	2%	2%	2%
Lower Austria	47%	36%	42%	42%
Upper Austria	16%	15%	16%	16%
Salzburg	1%	4%	2%	2%
Styria	16%	8%	13%	13%
Tyrol	3%	3%	3%	3%
Vorarlberg	1%	2%	1%	1%
Vienna	14%	28%	20%	20%
Total	100%	100%	100%	100%

Source: *Economica*.

The distribution of Gross value added in Lower Austria, Upper Austria, Styria and Vienna is clearly above average. This is mainly due to the fact that Schwechat Airport and the nearby refinery are located in Lower Austria, the manufacturing industry is found in Upper Austria and Styria and the many company headquarters based in Vienna. The indirect and induced effects are more evenly distributed across the federal states, as the supplier companies are not necessarily located in the same federal state as the companies directly analysed. A similar picture emerges for employment, although the direct effects in Vienna are more prominent.

Table 4: Distribution of total employment effects in number of persons in the individual federal states in percentage (broad definition - direct, indirect and induced)

Federal state	direct	indirect	induced	total
Burgenland	<1%	6%	3%	3%
Carinthia	1%	4%	2%	2%
Lower Austria	29%	35%	32%	32%
Upper Austria	19%	16%	17%	17%
Salzburg	2%	4%	3%	3%
Styria	7%	11%	9%	9%
Tyrol	2%	3%	2%	2%
Vorarlberg	<1%	2%	1%	1%
Vienna	40%	19%	31%	31%
Total	100%	100%	100%	100%

Source: *Economica*.

Fiscal contribution

Total fiscal contribution of the Austrian aviation industry (broad definition) comprises all taxes and charges paid in Austria in 2018. The total amount of 2.09 billion euros can be broken down as follows: 1.21 billion euros are attributable to the direct economic effects of the Austrian air transport industry (equalling 58.1 percent of the total effect). Indirect fiscal effects accounted for 708 million euros (33.9 percent) and the value of induced taxes and charges was 167 million euros (8.0 percent).

Table 5: Fiscal contribution in million euros

	In million euro	Proportion in %
Direct effect	1.214	58%
Indirect effect	708	34%
Induced effect	167	8%
Total effect	2.089	100%

Source: *Economica*.

Tourism

In the calculations made in this study on the effects on tourism the question arises as to how many guests actually come to Austria solely because of the existing flight connections. Tourists who arrive by plane, but could substitute it with other means of transport if necessary, must be excluded. Otherwise the interpretation would be much less stringent, and the allocation would be purely mathematical. In the model used here it was assumed that with increasing distance, fewer and fewer tourists would switch to alternative means of transport. Thus, for example, many guests from France would still opt for alternative modes of transport, while tourists from the Far East would not. This results in a direct tourism-related Gross value added of 1.14 billion euros which is increased to a total value of 1.64 billion euros through indirect and induced effects.

In terms of employees, 17,800 persons were directly employed in tourism (15,700 full-time equivalents); including indirect and induced effects the figure nearly totals 24,100 persons (close to 21,100 full-time equivalents).

Table 6: The effects of tourism on the air transport sector

	Direct	indirect	Induced	total
Gross value added in thousand euro	1.141.426	447.398	48.206	1.637.030
Persons employed	17.858	5.292	1.214	24.090
Employment in full-time equivalents	15.775	4.342	978	21.095

Source: *Economica*.