THE ECONOMIC IMPACT OF SAS

THE BENEFITS OF SAS AIR CONNECTIVITY TO THE SCANDINAVIAN ECONOMIES

RESEARCH REPORT

seo • amsterdam economics

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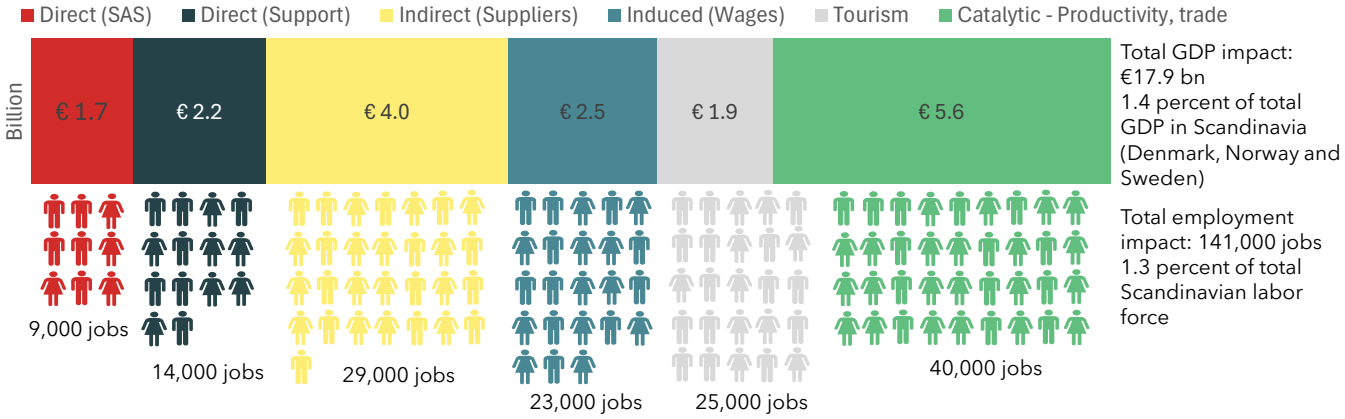
SAS ECONOMIC IMPACT IN 2024



SAS CONNECTIVITY IN 2024

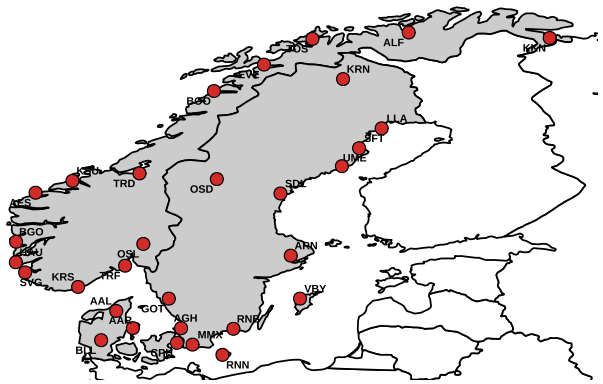
SAS has a strong presence in Scandinavia and Europe:

- 13 thousand weekly flights from 32 Scandinavian airports
- 88 European destinations
- 37 million annual passengers and a market share of 29% for flights and 31% for passengers

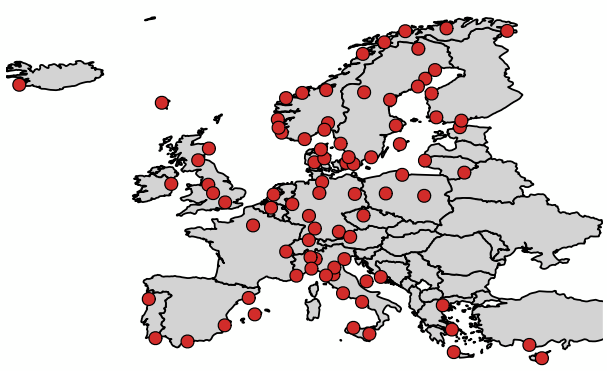
SAS's global network connects Scandinavia to the world:

- Direct connections to global hubs in North America and Asia
- Two thirds of all direct flights from Scandinavia to North America
- Hub-and-spoke system enables passengers in remote Scandinavian areas to use global network

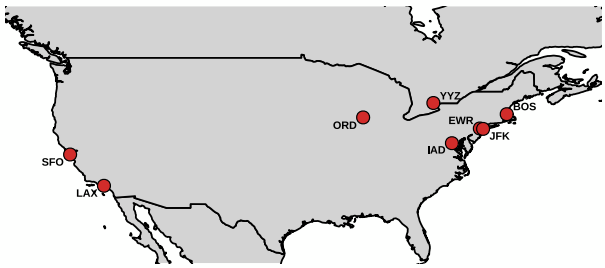
Scandinavian airports of SAS

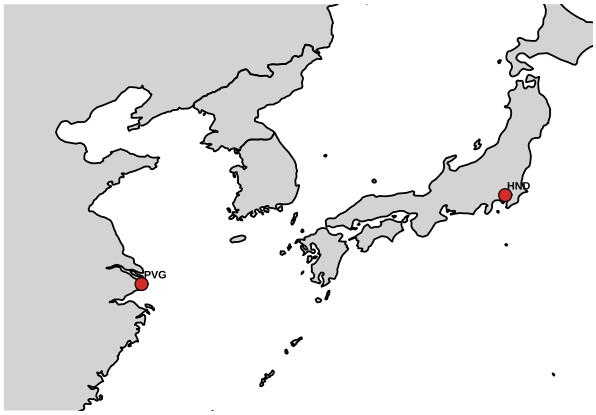


European destinations of SAS



Intercontinental destinations of SAS





Executive Summary

Scandinavian airlines - SAS has a crucial role in connecting Scandinavians with each other and the world, making its operations vital to the region. This economic impact assessment evaluates the airline's contribution to employment, GDP, and the broader aviation ecosystem in Scandinavia based on the most recent data available, i.e. 2024.

Connectivity

SAS provides connectivity through 13 thousand direct flights per week, serving a total passenger volume of 37.3 million annually. The airline maintains strong connectivity within Scandinavia and to major global hubs, with flights operating to and from 32 Scandinavian airports—ranging from small regional airfields in remote areas to large capital airports such as Oslo, Stockholm, and Copenhagen. Its market share within individual Scandinavian countries is between 25% and 77%. The overall market share across Scandinavia stands at 29%, thus every third flight departing from a Scandinavian airport is operated by SAS. The airport offers direct services to 139 international destinations across 41 countries. Notably, Copenhagen Airport (CPH) has daily connections to 7 out of 10 major global hub airports, enabling extensive onward global connectivity. CPH functions as the primary hub of SAS, facilitating seamless international travel into Scandinavia and Northern Europe more broadly, through its well-integrated network.

Economic impact

Through its operations, SAS directly contributes €3.9 billion in GDP and 23 thousand jobs from its operations and at the airports. Indirectly, they support €4 billion in GDP and 29 thousand jobs through the purchase of goods and services. Additionally, induced effects from wage expenditures contribute €2.5 billion in GDP and 23 thousand jobs. The catalytic impact from related activity from downstream activities is a combined €7.5 billion and 65 thousand jobs. About one-third is from tourism while the remainder can be attributed to productivity, agglomeration benefits, innovation activity in the service sector and trade and international market access.[1] In total, SAS activity is linked to 1.4% of Scandinavian GDP (€17.9 billion) and 1.3% of the labor force (141,000 jobs).

Table S.1 The overview of the economic impact of SAS on the Scandinavian economy in 2024

Impact type	Economic impact of SAS on Scandinavian economy in 2024	
	GDP impact (in billion €)	Employment impact (in jobs)
Direct impact (SAS activities)	€ 1.7	9,000
Direct impact (airport activities)	€ 2.2	14,000
Indirect impact	€ 4.0	29,000
Induced impact	€ 2.5	23,000
Catalytic impact - tourism	€ 1.9	25,000
Catalytic impact – productivity, trade	€ 5.6	40,000
Total	**€ 17.9**	**141,000**

Source: SEO Amsterdam Economics (2025). Total may differ slightly due to rounding.

[1] The scope of the analysis excludes quantifying negative externalities.

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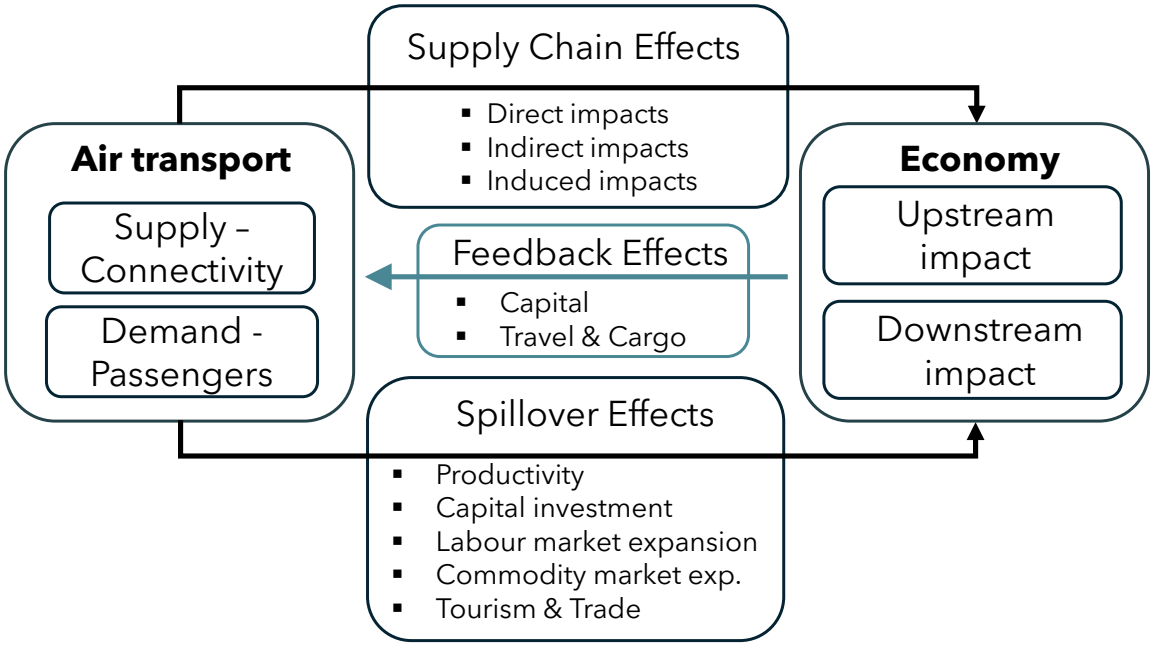
1 Introduction

SAS plays a pivotal role in connecting Scandinavia with the global economy, making its operations vital to the mobility of the region and economic integration in Northern Europe. This economic impact assessment evaluates the airline's contribution to employment, GDP, and the broader aviation ecosystem.

In recent years, SAS has undergone a transformative process. In response to the challenges posed by the COVID-19 pandemic and intensifying competition in the region, the airline implemented a broad restructuring program. The program includes cost-cutting measures, debt reorganization, and fleet modernization. In 2024, the airline carried approximately 37 million passengers—a marked recovery from pandemic lows—demonstrating recovered demand across its Nordic and international routes. Regarding cargo, SAS supports vital logistics and trade flows in the region. Additionally, the airline's shift from Star Alliance to SkyTeam in September 2024 reflects a strategic pivot to realign its global network and deepen cooperative synergies. In this context, SAS requested SEO Amsterdam Economics to conduct an analysis of its economic impact in Scandinavia.

Air transport and the economy are in bilateral interaction, stylized in Figure 1.1. Air transport can be divided into two primary components: the supply side, represented by connectivity, and the demand side, characterized by passenger volumes and cargo. On the one hand, this interplay of airlines and airports provides air connectivity to passengers thereby impacting the economy. On the other hand, the economy partially determines the demand for air transport of goods and passengers.

Figure 1.1 Air transport by SAS and the Scandinavian economies are bi-directionally interwoven



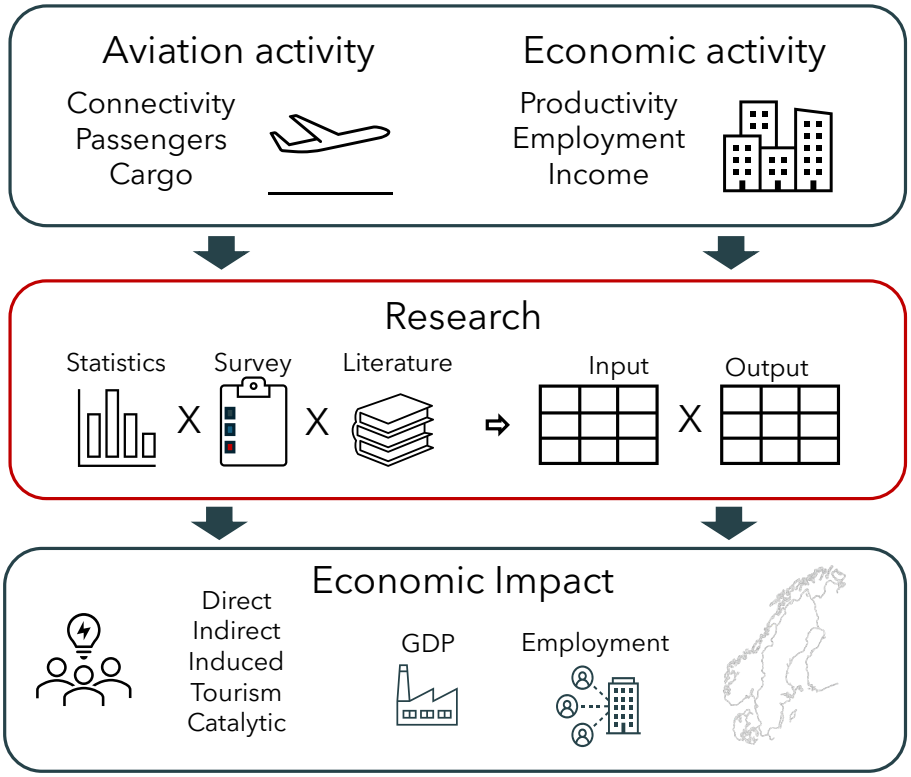
Source: SEO Amsterdam Economics (2025) adopted from Zhang and Graham (2020).

1.1 Scope, framework and methodology

The focus in this report is on SAS's operations in, departing from and arriving in Scandinavia in 2024. As such, all passenger flights operated by SAS and the associated airports in Scandinavia are in scope.[2] Since air travel is a combined airport and airline product, , all airport activity that is associated with SAS activity is taken into account. The research distinguishes the overall impact of SAS and the impact in each of the Scandinavian countries; here defined as including Sweden, Denmark and Norway. SAS is based in these three countries.

The research starts with an assessment of SAS activity in terms of connectivity, broadly defined here as a measure of direct flights offered. We contrast connectivity of SAS with the number of passengers served to get a full understanding of the context and showcasing that these can be for most purposes used interchangeably. Since flights are a suitable output measure of SAS activity that can directly be linked to economic activity, we focus on flights. Then, SAS activity is presented overall, per Scandinavian country, and separately for flights only between Scandinavia countries and within each country. Furthermore, we show SAS connectivity per destination region and as market share of international connectivity. Lastly, we provide an example of the connectivity benefit a hub airport can offer through onward connectivity. This aviation activity context serves as the optimal starting and anchor point for the rest of the analysis, see Figure 1.2

Figure 1.2 Research framework: aviation connectivity to economic impact



Source: SEO Amsterdam Economics (2025).

[2] In addition, aviation also transports cargo as belly or full freighter. The cargo network is closely linked to the passenger flights since about 50% of air cargo volume is transported as belly freight with passenger planes. Since SAS does not operate full freighter flights, analyzing these full freighter flights is outside the scope of this research.

The research itself combines detailed quantitative analysis of data from SAS, each countries statistical office, the OECD and Eurostat. Furthermore, we use airport data from Avinor (2013) and other publicly available data from Scandinavian airport providers to triangulate airport employment associated with SAS activity. In addition to external data, we rely on in-depth scientific literature assessment for core concepts such as the Input-Output methodology and the functional relationships between key determinants as well as recent SEO (2025, 2024, 2015) aviation-related economic impact reports. The economic impacts of air transport have been extensively researched over the past decades, for an overview of some of the recent findings, see SEO (2024, p.57ff).

The economic impact analysis relies traditionally on the widely recognized Input-Output model by Nobel laureate Leontief. This model uses a macroeconomic method to calculate the ripple effects of spending and investments from certain economic activities, for example at the airport, on the national economy. By analysing the economic interconnections between all sectors, applying the Input-Output model to aviation allows for assessment on how airline-airport-related activities, including their employment impacts, influence the economy through a "snowball effect." These interconnections are captured in Input-Output tables (here from the OECD), which detail the buy-sell relationships between sectors, showing the inputs a sector uses and the outputs it provides. The tangible economic outcomes commonly attributed to the airport are the above mentioned *direct, indirect and induced impact*, see for a more detailed elaboration Figure A.1 and Figure A.2 in the Appendix.

Air connectivity allows for long distance travel of goods and services which itself creates market access. A straightforward example would be tourism and access of foreign inputs such as computer chips and pharmaceuticals. A wide range of these downstream activities are often bundled under the term catalytic impacts which includes positive externalities such as knowledge spillovers. Next to these positive externalities, negative externalities such as noise disturbance and pollution may be present. Quantifying these negative effects requires different tools as applied in the current study and is hence out of scope, see SEO (2024) for more information on negative externalities. Most of the positive externalities are also harder to measure than the traditional impact measures and there is continued scientific debate on their importance, size, additionality, and exclusive association to aviation instead combined connectivity including also road, rail and digital.

We aim to provide a conservative and therefore trustworthy assessment of the economic impact through our choices in assumptions and methodology. As such, we try to avoid double counting of economic activity which is the inherent danger of Input-Output analysis. For example, when determining the direct impact, we clearly separate SAS from support activities. For indirect and induced impact, we avoid using a loop of inputs or expenditures. For the catalytic impact of tourism, we avoided double counting by not including expenditures of tourist on air tickets. Similarly, for catalytic impacts on productivity and trade, we use the average estimate of cross country meta-analysis and report the confidence around the range of potential outcomes.

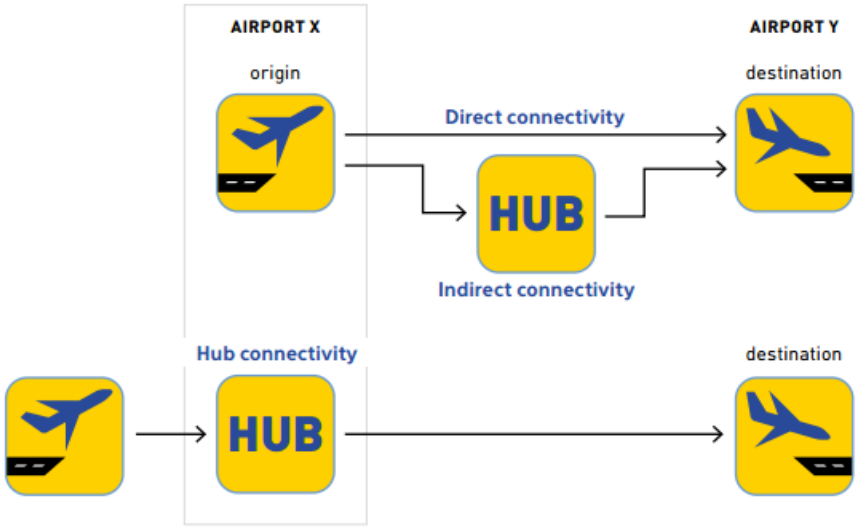
2 Air connectivity provided by SAS

SAS has a strong presence in the Scandinavian aviation market. The airline plays a crucial role in ensuring air connectivity for remote areas across Scandinavia. SAS offers direct flights to seven of the top ten global hubs.

2.1 Measuring connectivity

The natural starting point for an economic impact assessment of an airline is the air connectivity it facilitates. We focus in this report on passenger air connectivity. We investigate and report SAS's air connectivity for the year 2024 by airport and type of connectivity using SEO's NetScan model. We separate air connectivity into its components, direct connectivity, indirect connectivity and hub connectivity, see Figure 2.1.

Figure 2.1 An airline provides direct, indirect and hub connectivity



Source: SEO Amsterdam Economics (2025)

1. **Direct connectivity** is the most straightforward measure and captures all direct weekly flights (i.e. without transfer) to destination X. Direct connectivity gives an indication of the network quality from the perspective of the origin-destination passenger boarding in Scandinavia.
2. **Indirect connectivity** again looks at weekly connections, but now to the plausible connections departing from Scandinavia with a transfer at another (hub) airport to a certain final destination. Indirect connectivity gives an indication of the network quality from the perspective of the boarding passenger as far as indirect connections are concerned.[3]
3. **Hub connectivity** measures the weekly (indirect) connections from other origins via a hub airport to other destinations. For example, all possible connections via (with a transfer at) CPH to Milan Malpensa. The hub connectivity gives an indication of the network quality from the perspective of the transferring passenger.

[3] A derivative of the indirect connectivity is the onward connectivity, which is expressed in the total indirect connectivity via one specific onward hub (example: ARN-CPH–all final destinations).

The objective is then how to derive these connectivity measures. The NetScan model defines so-called Connectivity Units (CNUs). One CNU is equivalent to (a connection with the quality of) one direct flight. A direct flight with a frequency of seven times a week therefore has a total CNU value of seven. An individual indirect connection has a quality that varies between zero and one. After all, the value of the indirect flight is less than one because a transfer and a detour must be made. Due to this inconvenience, the quality of this connection is lower than that of a direct connection. An indirect connection from or via Scandinavia that can be made seven times a week will therefore have a total CNU value varying between zero and seven, depending on the transfer time and detour time of this connection. Connections that do not meet the minimum connecting time at the hub airport in question are not considered realistic transfer options. Connecting is only possible within the same carrier, carrier group, carrier alliance, interline agreements or via code-share partnerships.

Empirically, the connectivity indices in the NetScan are based on a representative week in the year. For this study, the third week of June is used. For this week the complete schedules are extracted from the Official Airline Guide (at the route and airline(s) and day and time of operation level). The NetScan model is then applied to make and evaluate the plausible connections at each airport for each route-airline combination.

2.2 Connectivity from Scandinavian airports

SAS has a strong presence in the Scandinavian aviation market (see Table 2.1). It provides 29 percent of the total direct connectivity (number of direct flights per week) from Scandinavian airports in 2024. Its market share is higher in Denmark and Sweden (around 30 percent) than in Norway (25 percent). However, in absolute terms the direct connectivity provided by SAS is higher in Norway (around 1,600) than in the other two Scandinavian countries (around 1,100). The main reason is that SAS's domestic flight network in Norway is more extensive than in Sweden and Denmark. SAS is the leading airline in terms of direct connectivity in both Sweden and Denmark.

Table 2.1 SAS provides 29 percent of the total direct connectivity from Scandinavian airports in 2024

	Direct connectivity from Scandinavian airports			Passengers from/to Scandinavian airports		
Country	Total	Provided by SAS	Share SAS	Total (millions)	Of which SAS (millions)	Share SAS
Denmark	3,191	1,067	33%	35.8	10.1	28%
Sweden	3,508	1,126	32%	32.5	10.7	33%
Norway	6,307	1,587	25%	51.3	16.5	32%
Total	**13,006**	**3,780**	**29%**	**120.0**	**37.3**	**31%**

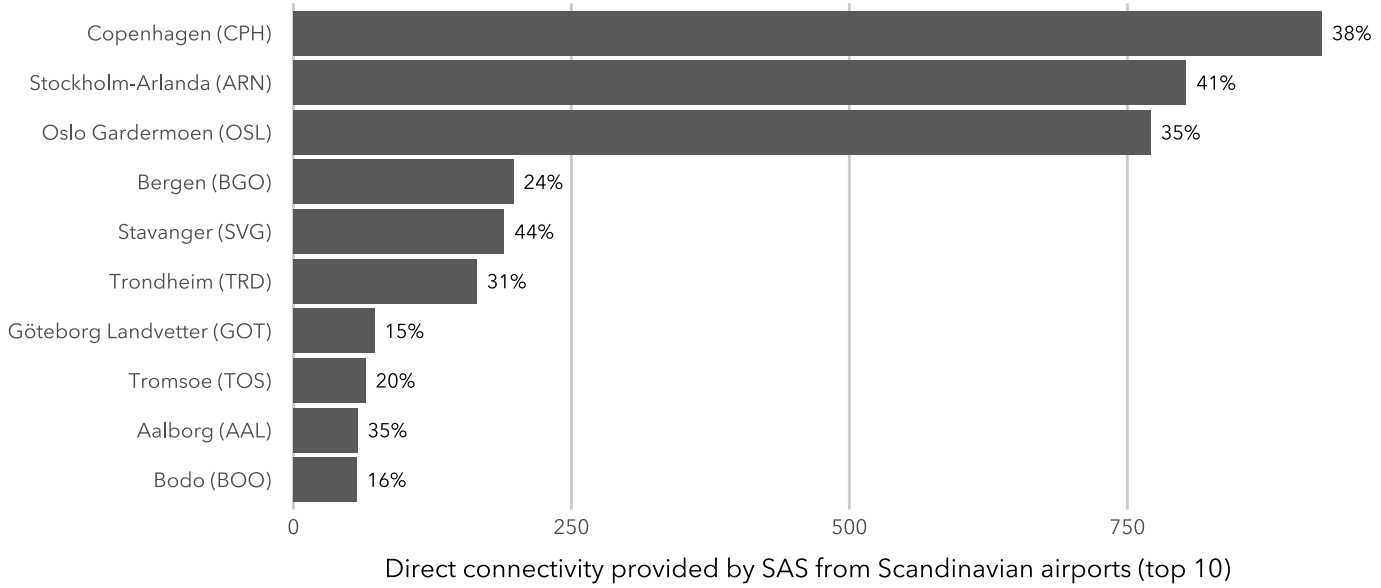
Source: SEO Amsterdam Economics (2025) using NetScan model and client data.

In 2024, SAS carried around 37.3 million passengers, representing a market share of 31 percent. Regarding Norway, SAS holds a higher market share for passengers than for direct connectivity. This indicates that SAS's average passenger number per flight exceeds that of the other airlines in this country, caused by the operation of relatively large aircraft and/or a relatively high load factor. For Denmark, the opposite applies.

The flight activity of SAS is concentrated on the three main international airports in Scandinavia: Copenhagen, Stockholm and Oslo (see Figure 2.2). These airports account for around two-thirds of the total direct connectivity provided by SAS from Scandinavian airports in 2024. SAS has a strong presence at these airports: its market share ranges from 35 to 40 percent. SAS's presence at the medium-sized airports of Bergen, Stavanger and Trondheim

represents another 15 percent of its direct connectivity from Scandinavia. Especially in Stavanger SAS is a strong player, accounting for almost half of total connectivity.

Figure 2.2 SAS has a strong presence at the three main international airports in Scandinavia

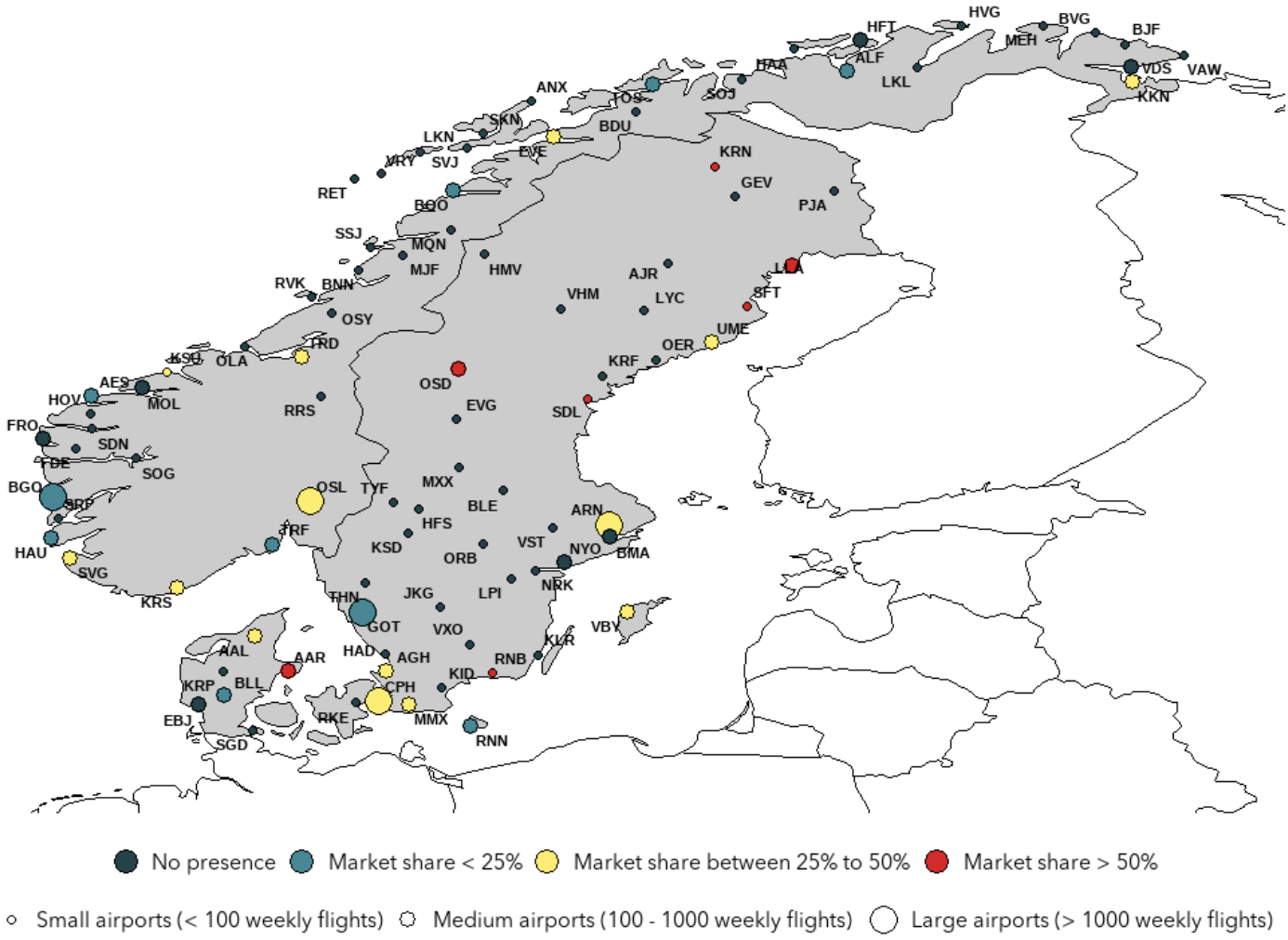


Source: SEO Amsterdam Economics (2025) using NetScan model. The value labels show the share of SAS in total direct airport connectivity from the airport

Figure 2.3 shows that SAS is present at 32 Scandinavian airports in 2024, covering all Scandinavian regions. At eight airports, SAS provides more than half of the direct connectivity in 2024.[4] Three of these airports are located in Northern Sweden: Lulea Airport (LLA), Kiruna Airport (KRN) and Skelleftea Airport (SFT). From these three airports SAS operates flights to Stockholm Airport, providing access to a broad network of onward connections. This demonstrates the importance of SAS in connecting the remote area of Northern Sweden with the rest of the world by air. Likewise, SAS connects a large number of Scandinavian airports with the three main hubs of Copenhagen, Stockholm and Oslo, enabling global air connectivity.

[4] SAS became Star Alliance member in September 2024. This report is based on data from before then as economic and connectivity data for 2025 were not yet available. Once this data will be available, an update of the analysis can be made or in form of a forecast.

Figure 2.3 SAS is present in each Scandinavian region with varying degrees of market share



Source: SEO Amsterdam Economics (2025) using NetScan model. Market share of SAS is measured in terms of direct connectivity (number of weekly direct flights based on a representative week in the year). The map omits Svalbard (LYR) in Spitsbergen.

2.3 Connectivity within Scandinavia

SAS accounts for 35 percent of the total direct connectivity within Scandinavia in 2024 (see Table 2.2).[5] When focusing on the direct connectivity between the Scandinavian countries, the market share of SAS rises to 68 percent. This highlights the role of SAS as the primary provider of air connectivity between these countries. SAS's intra-Scandinavian network enables, for example, a passenger living in Oslo to fly to Copenhagen and to transfer to the intercontinental destinations available from this hub.

5 This includes both flights within each of the three Scandinavian countries as well as flights between these countries.

SAS has also a strong presence in the domestic aviation markets of the three Scandinavian countries in 2024. Its market share in terms of direct connectivity is highest in Sweden (41 percent), followed by Denmark (33 percent) and Norway (25 percent).

Table 2.2 SAS is the primary provider of air connectivity between the Scandinavian countries

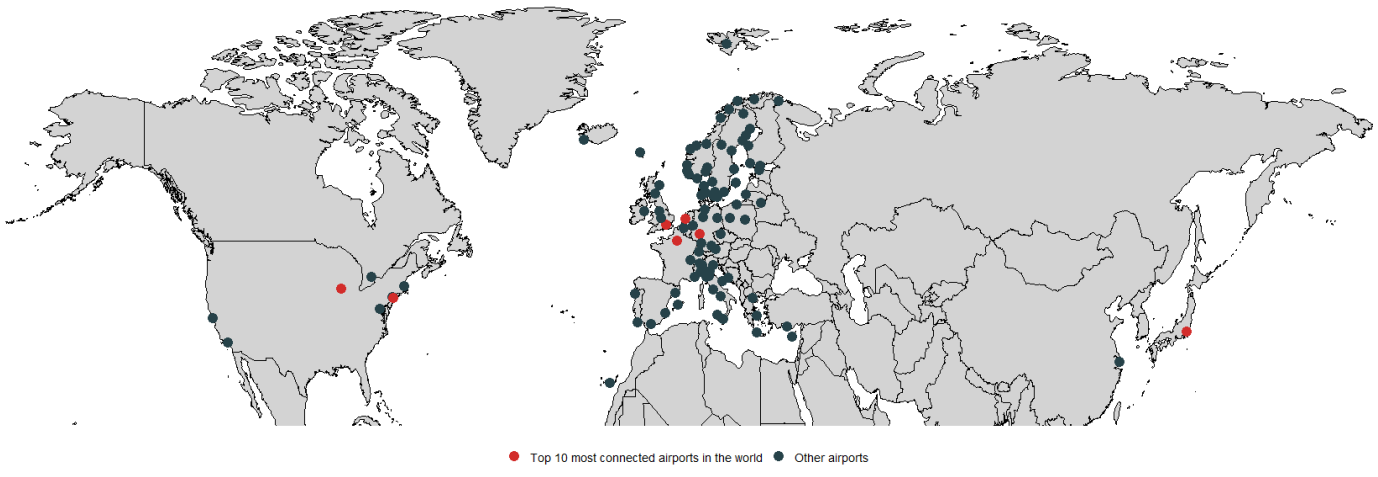
		Direct connectivity within Scandinavia provided by SAS in 2024		
		To:		
		Denmark	Sweden	Norway
From:	Denmark	176 (33%)	115 (77%)	199 (71%)
	Sweden	115 (77%)	581 (41%)	81 (56%)
	Norway	199 (71%)	84 (55%)	1,113 (25%)

Source: Based on SEO Amsterdam Economics (2025) using the NetScan model. Percentages within brackets show the share of SAS in total direct connectivity within Scandinavia.

2.4 Connectivity per world region

The network of SAS is primarily European: 98 percent of the airline's direct connectivity from Scandinavia is to European destinations in 2024 (see Table 2.3). Likewise, 88 of the in total 98 destinations within the airline's network are in Europe (90 percent). However, the intercontinental network of SAS is important for the global air connectivity from Scandinavia. The main reason is that SAS accounts for 60 percent of the direct connectivity from Scandinavia to North America. It offers direct flights to eight cities in this continent. SAS also provides direct connectivity to Asia, with flights from Copenhagen to Tokio and Shanghai. Figure 2.4 shows that in 2024 SAS offers flights to seven out of the ten most connected airports in the world (according to the OAG Megahub Index). By providing access to these major hubs SAS enables Scandinavian passengers to onward travel to all regions of the world.

Figure 2.4 SAS offers flights from Scandinavia to seven out of the ten most connected airports



Source: Based on SEO Amsterd Top 10 most connected airports in the world Other airports

Table 2.3 SAS provides 60 percent of the direct connectivity between Scandinavia and North America

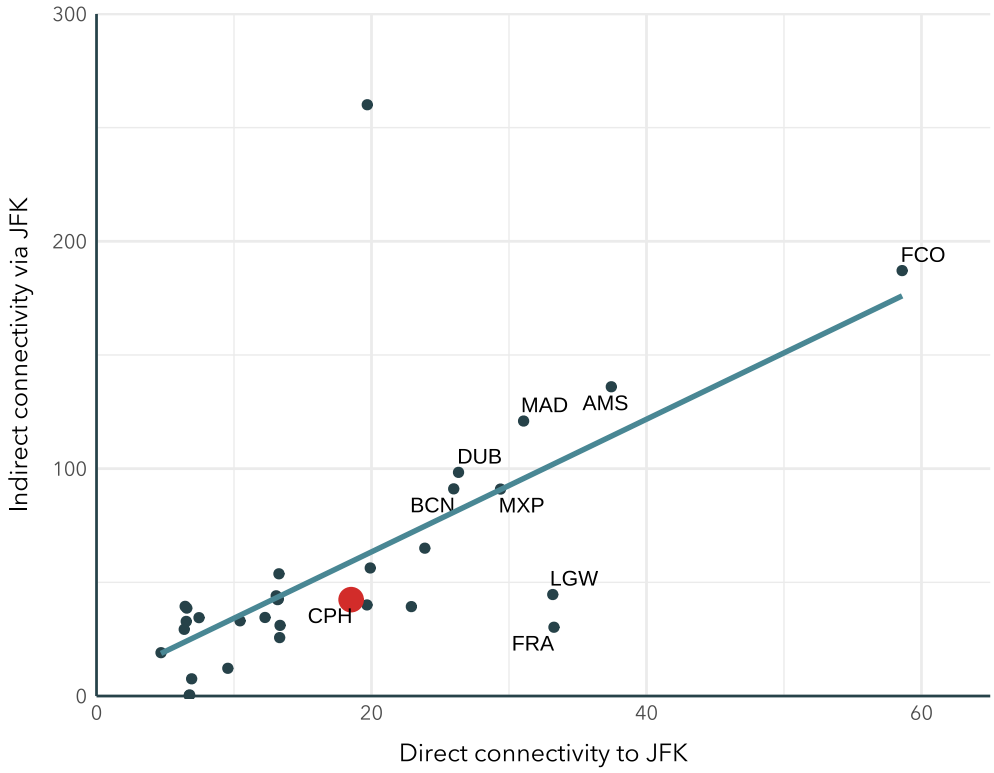
	Direct connectivity from Scandinavia per world region in 2024		
	Total	**Provided by SAS**	**Share SAS**
Africa	19	0	0%
Asia-Pacific	45	7	16%
Europe	12,748	3,699	29%
Latin-America	No flights from Scandinavia to Latin-America		
Middle East	72	0	0%
North-America	122	74	60%
Total	**13,006**	**3,780**	**29%**

Source: Based on SEO Amsterdam Economics (2025) using the NetScan model.

Case study JFK

This case study illustrates how an increase in direct flights to a major hub airport translates to an increase in onward travel options via this hub. John F. Kennedy Airport (JFK) in New York is used as an example, because it is a main hub in North America. In 2024, SAS offers a direct flight connection between Copenhagen and JFK.

Figure 2.5 Flying to a major hub airport creates both direct and indirect travel options



Source: SEO Amsterdam Economics (2025) using NetScan model for a selection of European airports similar to CPH.

Figure 2.5 shows for a selection of European airports with a direct flight connection to JFK the direct connectivity to this hub (number of weekly direct flights) and the indirect connectivity via this hub. The indirect connectivity shows

the number of onward travel options per week using JFK as transfer airport. The indirect connectivity is corrected for the quality of the onward travel options, e.g. duration of the transfer and the detour.

The figure shows that a clear positive relationship exists between the direct and the indirect connectivity. The slope of the graph indicates that one extra weekly direct flight to JFK creates on average 2.6 extra weekly indirect flight options via this hub, accounting for the quality of these travel options. This illustrates how an increase in the number of flights to a major hub airport increases both direct and indirect connectivity.

3 The economic impact of SAS

The impact of SAS on the Scandinavian economy equals around 17.9 billion euro in GDP and 141 thousand jobs. This is about 1.4 percent of the total Scandinavian GDP and 1.3 percent of the total employment. The average labour productivity of jobs linked to SAS is higher than the economy-wide labour productivity.

3.1 Total economic impact

Total economic impact per country

In 2024, the broader impact of SAS on the Scandinavian economy amounts to approximately 17.9 billion euro in GDP and 141 thousand jobs (see Table 3.1).[6] Accordingly, around 1.4 percent of the Scandinavian GDP and 1.3 percent of its labour force is linked to SAS (see Table 3.2). For the broader definition that takes downstream activities such as tourism into account, the catalytic impact from trade, innovation and agglomeration (5.6 billion euro in GDP and 40 thousand jobs) and the indirect impact (4.0 billion euro in GDP and 29 thousand jobs) account for the largest share of the economic impact. The narrower definition of the economic impact that includes direct, indirect and induced impact is approximately 10.2 billion euro in GDP and 75 thousand jobs.[7]

Table 3.1 SAS's impact on the Scandinavian economy is around €17.9 billion in GDP and 141 thousand jobs

Impact type	Economic impact of SAS on Scandinavian economy in 2024	
	GDP impact (in billion)	Employment impact (in jobs)
Direct impact (SAS activities)	€ 1.7	9,000
Direct impact (support of other airport activities)	€ 2.2	14,000
Indirect impact	€ 4.0	29,000
Induced impact	€ 2.5	23,000
Total (narrow definition)	**€ 10.2**	**75,000**
Tourism catalytic impact	€ 1.9	25,000
Productivity, innovation and trade catalytic impact	€ 5.6	40,000
Total (broad definition)	**€ 17.9**	**141,000**

Source: SEO Amsterdam Economics (2025).

The results show that the economic impact of SAS extends beyond the GDP and employment stemming from the airline's own activities. The 1.7 billion euro in GDP generated by SAS itself supports 16.2 billion euro in GDP within the wider Scandinavian economy. Similarly, every job at SAS supports around 15 other jobs in the Scandinavian

6 We convert all local currencies to Euro's adjusted to 2024 price levels to enable cross-country comparisons in total gross value-added but not taking into account any cost-of-living considerations. All employment is measured in jobs, i.e. total headcount, which is highly correlated with other measures such as full-time equivalents (FTE) and total labor hours.

7 There is continued scientific debate about the catalytic impacts importance, size, additionality, and exclusive association to aviation.

labour market (see Table 3.1). The economic footprint of SAS is highest in Norway in 2024 (7.7 billion euro in GDP and 53 thousand jobs), followed by Denmark (5.6 billion euro in GDP and 45 thousand jobs) and Sweden (4.6 billion euro in GDP and 43 thousand jobs). The relatively high economic impact of SAS in Norway is mainly due to the airline's extensive flight operation in this country. SAS operates around 40% more flights from Norway than from either Denmark or Sweden (see Table 2.2 in Chapter 2).

The economic impact per SAS flight is higher for Norway and Denmark (around 50,000 euro) than for Sweden (around 40,000 euro) in 2024. The main explaining factor is the lower level of economic activity (relative to the level of flight activity) at the premises of Swedish airports compared to Danish and Norwegian airports. In other words, the higher geographical concentration of aviation activity in Denmark than Sweden, and the fact that larger airports have over-proportional returns form economies of scale and scope, mean Denmark is able to have higher benefits per flight than Sweden. Accordingly, the economic footprint of SAS is higher in Denmark than in Sweden, even though the airline's flight operation is similar.

Table 3.2 The economic footprint of SAS is highest in Norway in 2024

Country	GDP impact SAS (in billion €)	Total GDP (in billion €)	Impact SAS as % of total GDP	Employment impact SAS (in jobs)	Total labour force (in jobs)	Impact SAS as % of total labour force
Denmark	€ 5.6	€ 353	1.6%	45,000	3,008,000	1.5%
Norway	€ 7.7	€ 406	1.9%	53,000	2,834,000	1.9%
Sweden	€ 4.6	€ 508	0.9%	43,000	5,237,000	0.8%
Total	**€ 17.9**	**€ 1,267**	**1.4%**	**141,000**	**11,078,000**	**1.3%**

Source: SEO Amsterdam Economics (2025).

Total economic impact per airport

The majority of SAS's economic footprint is linked to its flight activity at the three large international airports in Scandinavia (Copenhagen, Oslo and Stockholm). This outcome reflects the airline's concentration of flight activity at these main airports (see Figure 3.1 and Figure 3.2). Another contribution factor is that the economic impact of a SAS flight from a large hub airport is estimated to be higher than that of a flight from a small airport. For instance, the GDP impact of a SAS flight from Copenhagen is approximately 52,000 euro, whereas a SAS flight from Aarhus (a medium sized airport in Denmark) generates around 40,000 euro in GDP. This shows the high level of economic activity (relative to the level of flight activity) at the premises of large hub airports.

Figure 3.1 The GDP impact linked to SAS's flight activity at Copenhagen is approximately 5 billion euro

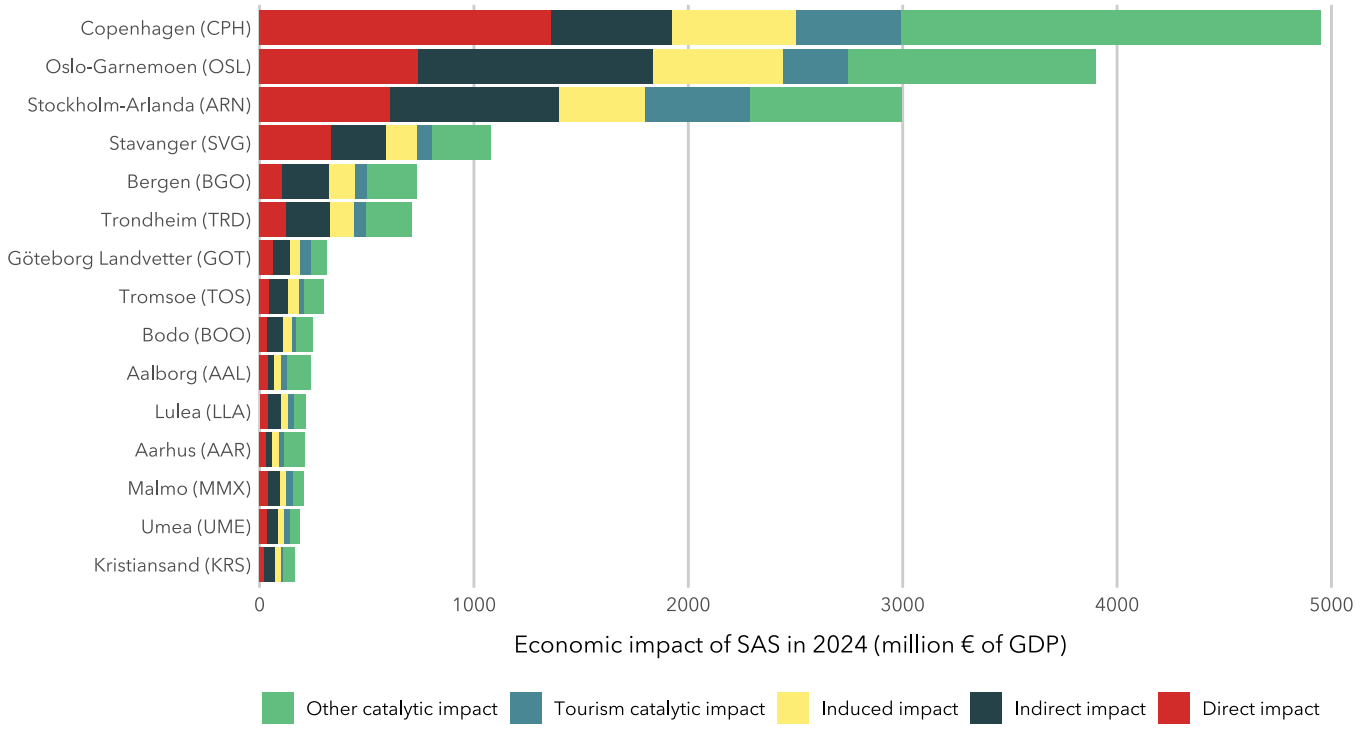
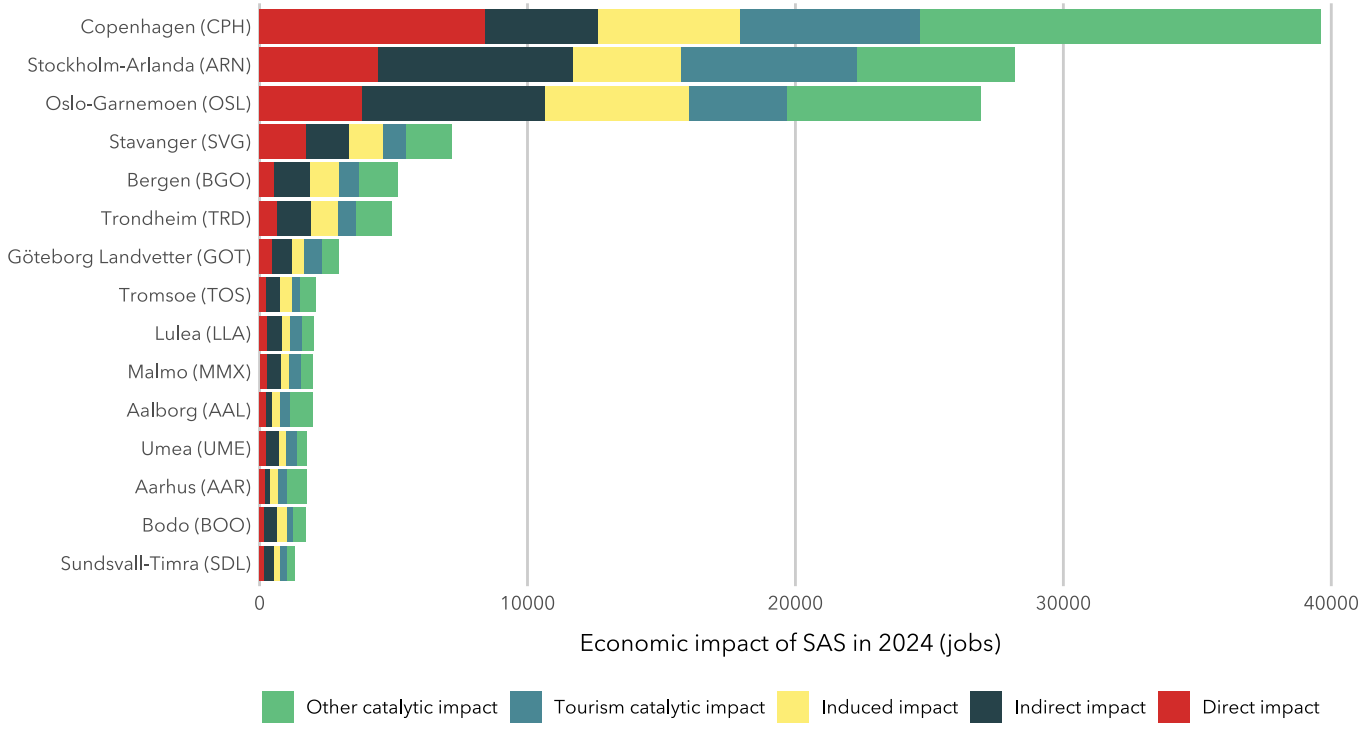


Figure 3.2 The majority of the employment impact of SAS is linked to the airline's activity at the three major Scandinavian airports



Source: SEO Amsterdam Economics (2025).

3.2 Direct impact

In 2024, the direct economic impact of SAS is estimated to be 3.9 billion euro in GDP and 23,000 jobs. This includes both the GDP and jobs stemming from SAS's own activities as well as those linked to activities at Scandinavian airports that are supported by the airline. The direct economic impact related to the activities of SAS itself is based on client data and amounts to approximately 1.7 billion euro in GDP and 9,000 jobs in 2024 (see Table 3.1). SAS generates most GDP through the transportation of passengers. The other main ways are cargo transportation and ground handling. The main job categories at SAS are ground handling roles and cabin attendants, accounting for 37 and 25 percent of the airline's total workforce in 2024. Admin roles (15 percent), pilots (14 percent) and aircraft maintenance (9 percent) account for the remainder.

SAS's direct economic impact related to its support of economic activity at the premises of Scandinavian airports amounts to around 2.2 billion euro in GDP and 14,000 jobs in 2024 (see Table 3.3). This includes, for example, GDP and employment stemming from the spendings by SAS passengers in duty free shops and airport restaurants. We approximate this impact by multiplying for each Scandinavian airport the total employment and GDP generated within the airport's premises by SAS's share of passengers on that airport. We do not consider employment and GDP at the premises linked to airlines, ground handling and aircraft maintenance. Accordingly, we avoid double counting the GDP and jobs stemming from SAS's own activities, ensuring consistent and conservative results. Most GDP and employment within the premises of Scandinavian airports that is supported by SAS are within the airport operator (880 million euro in GDP and 4,900 jobs). This is followed by airport retail (310 million euro in GDP and 2,300 jobs) and customs (160 million euro in GDP and 1,000 jobs).[8]

Table 3.3 In 2024, SAS supports around 2.2 billion euro in GDP and 14,000 jobs within the premises of Scandinavian airports

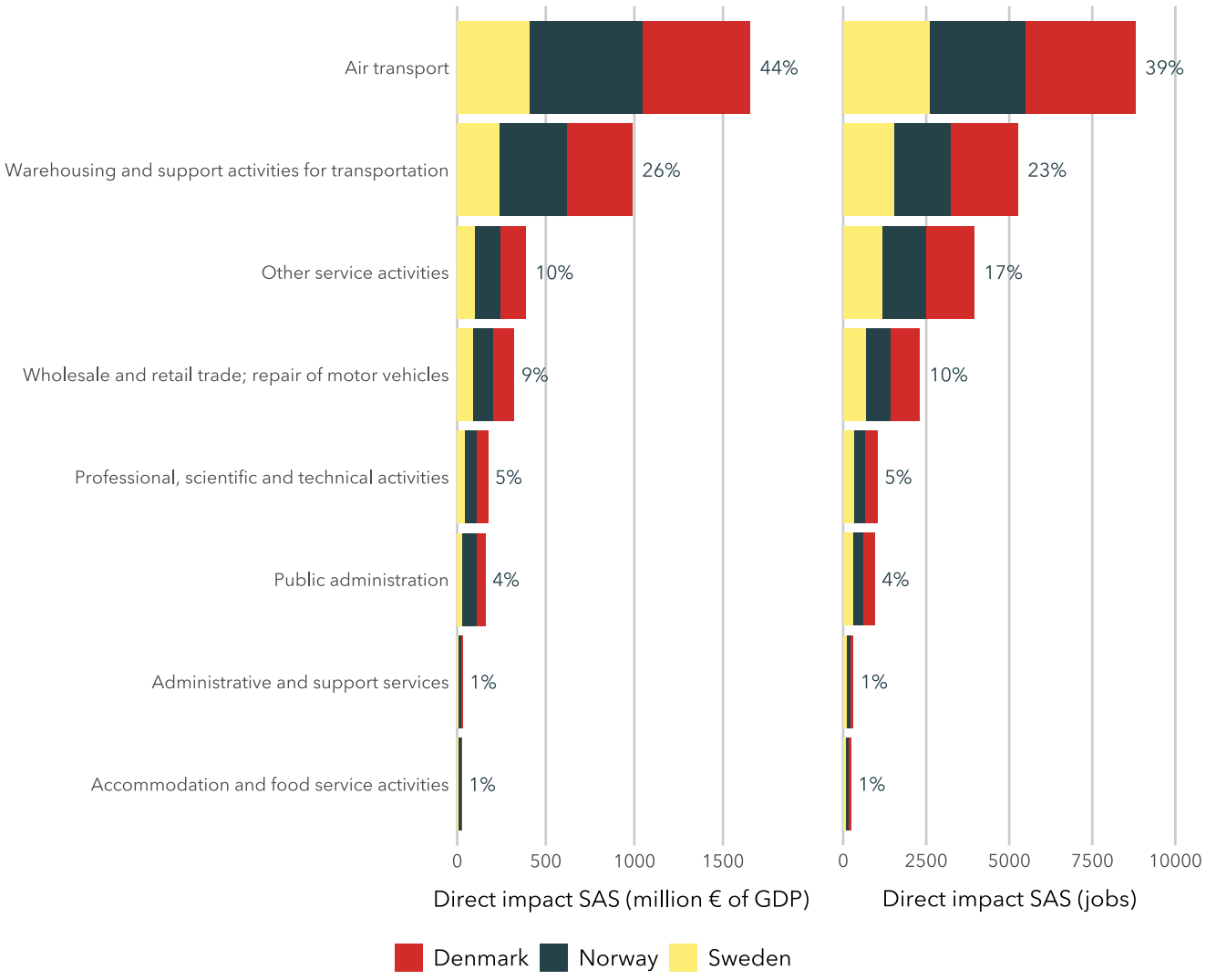
	Economic activity at premises of Scandinavian airports supported by SAS	
Activities	**GDP (mln €)**	**Employment (jobs)**
Airport operator	960	4,900
Retail at the airport	340	2,300
Customs	170	1,000
Security	170	1,700
Forward Logistics	130	600
Air Traffic Control (ATC)	120	600
Cleaning	90	800
Airport overhead	30	200
Airport hotels	30	300
Other	150	1,500
Total	**2,190**	**14,000**

Source: SEO Amsterdam Economics (2025).

[8] The private or public nature of each airport function, such as publicly funded custom operations or publicly listed private company with partial government ownership such the airport operator at CPH, can equally be assessed in gross value calculations.

Figure 3.3 shows SAS's total direct economic impact per country in 2024. The impact is split by economic sector according to the OECD sector classification. In 2024, the direct economic impact of SAS is highest in Denmark (1.5 billion euro in GDP and 9,000 jobs) and Norway (1.5 billion euro in GDP and 8,000 jobs). However, SAS operates around 40 percent more flights from Norway than from Denmark. A main reason for the relatively high direct economic impact of SAS in Denmark is the high level of economic activity (relative to the level of flight activity) at the premises of Copenhagen airport (see paragraph 3.1). SAS's direct economic impact in Sweden amounts to 0.9 billion euros in GDP and 7,000 jobs in 2024. The average labour productivity of the direct employment supported by SAS is around 160,000 euro, which is around 40 percent higher than the average labour productivity within the whole Scandinavian economy (i.e., 114,000 euro). [9]

Figure 3.3 SAS's direct economic impact is highest in Denmark and Norway



Source: SEO Amsterdam Economics (2025).

[9] To arrive at the labor productivity, we can divide the direct economic impact (supported by SAS) by the number of jobs: €2.2 billion/14,000 ≈ €160,000 per job. Note that labor productivity data at the airport is not available on the micro level and therefore productivity heterogeneity between airport activities is out of scope.

3.3 Indirect impact

In 2024, the indirect economic impact of SAS amounts to around 4.0 billion euro in GDP and 29,000 jobs (see Figure 3.4). The indirect impact is the economic activity related to companies that supply or support the activities at SAS. For example, fuel companies supplying kerosine for the airline's aircraft. Suppliers to activities at the premises of Scandinavian airports that are supported by SAS are also considered in this analysis. This includes, for example, textile companies providing bed linen to airport hotels. The indirect impact is estimated through an Input/Output analysis.

The sectors "Wholesale and retail trade" (490 million euro) and "Mining and quarrying" (450 million euro) are the main suppliers of goods and services to SAS. The wholesale and retail sector provides a diverse range of products to the airline, for instance food for in-flight catering. The suppliers within the mining and quarrying sector are predominantly located in Norway, reflecting the country's substantial oil extraction industry. Part of the extracted oil is used for the production of kerosine.

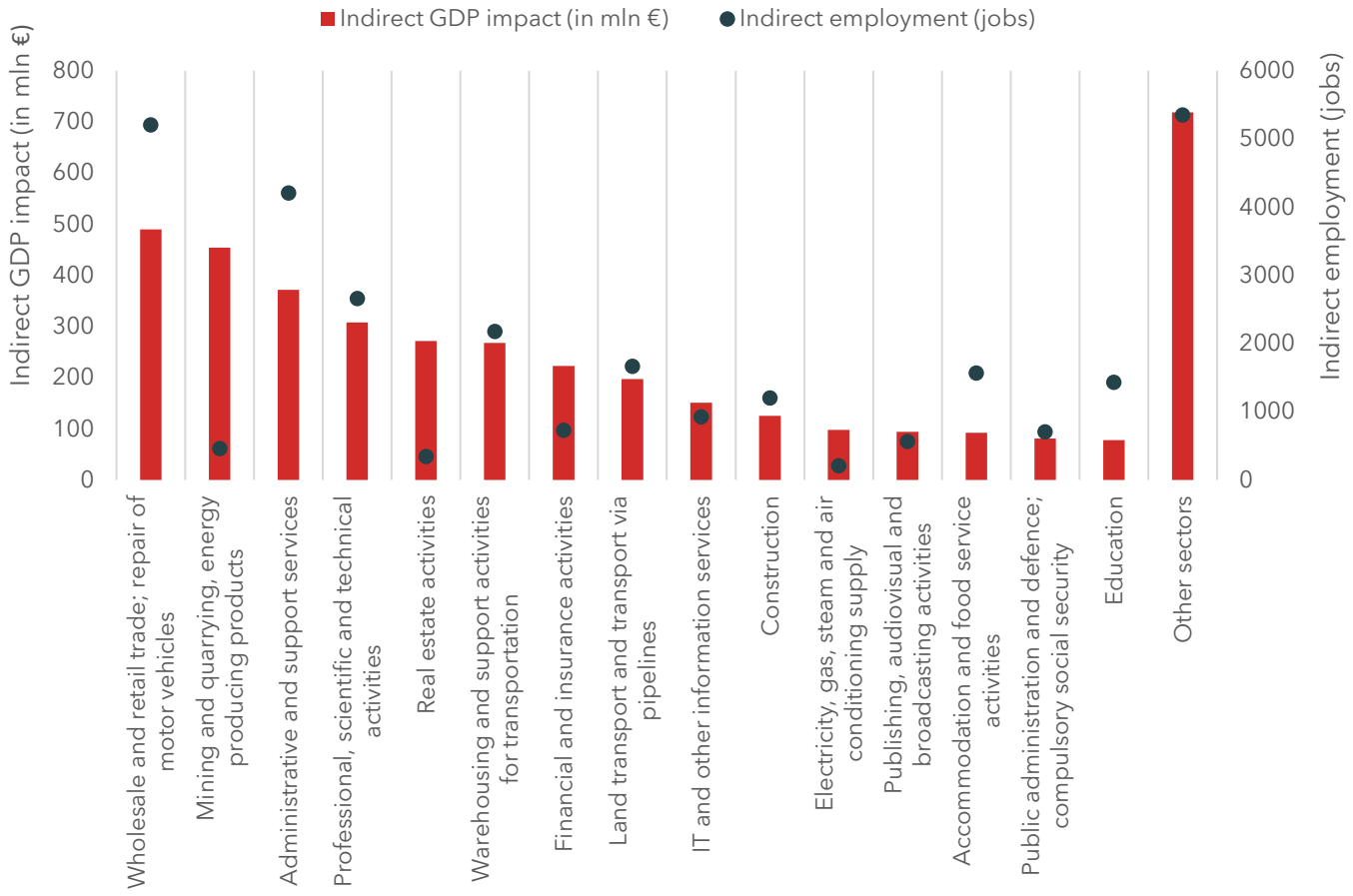
The jobs which SAS indirectly supports are primarily in the sectors "Wholesale and retail trade" (around 5,200 jobs) and "Administrative and support services" (4,200 jobs). Despite being a major supplier to SAS, the indirect employment within the mining and quarrying sector is limited: approximately 460 jobs. This reflects the exceptionally high labour productivity in this sector, indicating that substantial outputs are produced with a small workforce.

The average labour productivity of all indirectly supported jobs by SAS is around 138,000 euro, which is around 20 percent higher than the average labour productivity for the whole Scandinavia economy.

Figure C.1 in Appendix C shows that the indirect economic impact of SAS is highest in Norway (2.2 billion euro in GDP and 13,000 jobs), followed by Sweden (1.2 billion euro in GDP and 11,000 jobs) and Denmark (0.7 billion euro in GDP and 5,000 jobs). The variation in impacts is partly explained by differences between the countries in the direct impact. Another main explaining factor are differences in the extent to which direct impacts lead to indirect impacts (the multiplier). In Denmark, 100 euro of direct impact linked to SAS generates around 50 euro of indirect impact and 100 direct jobs generate around 50 indirect jobs. In Norway and Sweden, the multiplier is higher: 100 euro of direct impact leads to an indirect impact of 140 and 130 euro, respectively, and 100 direct jobs result in 170 indirect jobs. A main reason for the differences in multipliers is that according to the Input/Output tables the Danish air transport sector relies more on imports from other countries than the air transport sectors in Sweden and Norway.[10] So, in Denmark a higher share of the indirect impact is assumed to leak abroad. However, note that part of the imports to Denmark are provided by companies from Sweden and Norway, benefiting the Scandinavian economy (for an example using the Greater Copenhagen region see section 0). This cannot be taken into account in this analysis due to absence of an Input-Output table that applies to the sectoral division of Scandinavia jointly, instead of each country separately. From that perspective, our calculations of the indirect impact should be considered as conservative.

[10] Around 25 percent of the inputs used by the Danish air transport sector are domestic, whereas for the Swedish and Norwegian air transport sector 75 percent of the inputs are domestic.

Figure 3.4 Most of SAS's indirect economic impact ends up in the sector "Wholesale and retail trade"



Source: SEO Amsterdam Economics (2025).

3.4 Induced impact

Another way SAS supports the Scandinavia economy is through the spending of wages by employees directly or indirectly linked to the airline. These induced impacts are estimated based on spending statistics from OECD.

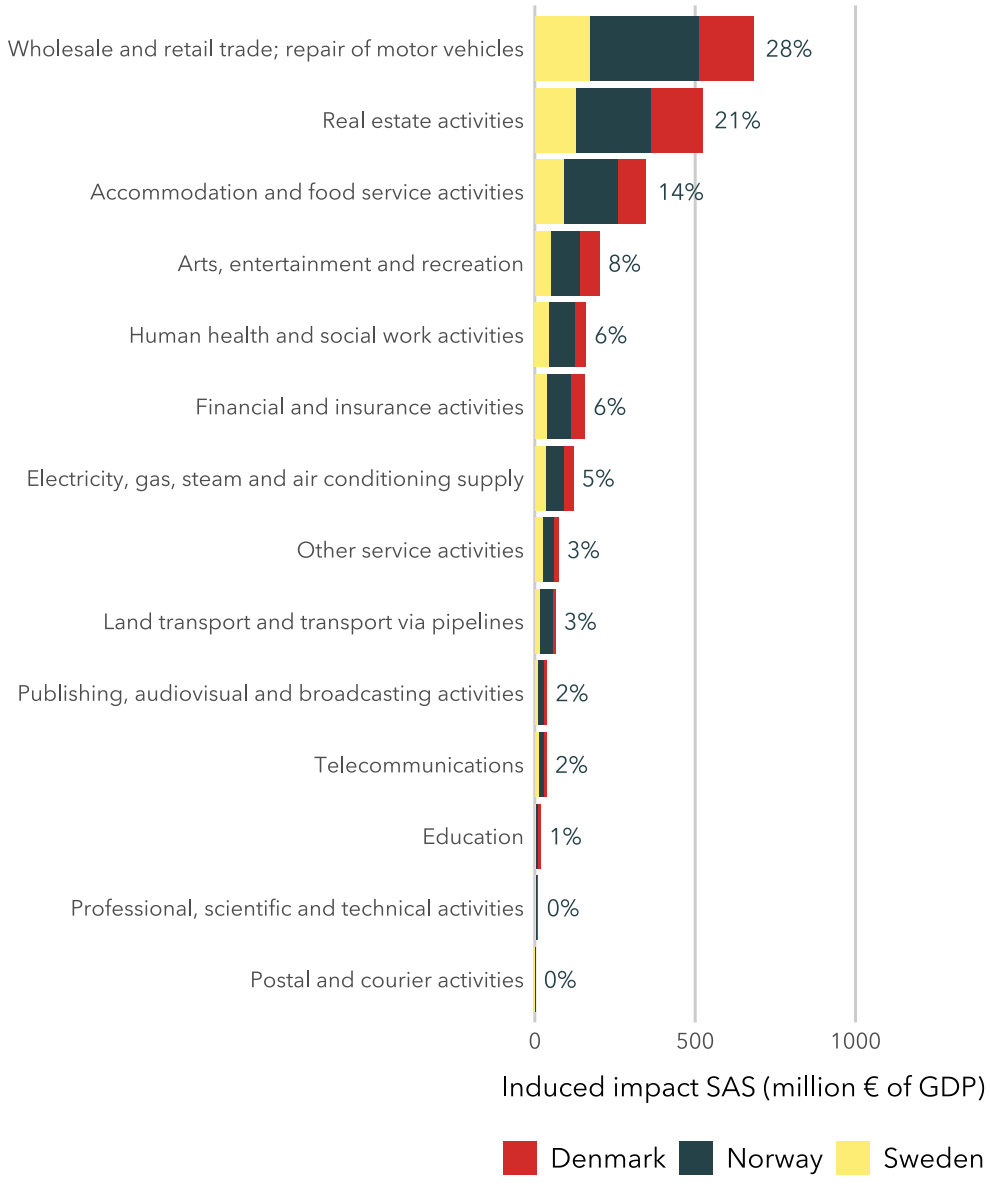
In 2024, the induced economic impact of SAS is approximately 2.5 billion euro in GDP and 23,000 jobs (see Figure 3.5). Hence, every 100 euro of direct and indirect impact linked to SAS generates around 31 euro of induced impact in other sectors. Likewise, every 100 jobs directly or indirectly tied to SAS generate 43 jobs of induced impact in other sectors.

The majority of induced GDP supported by SAS ends up in the sectors "Wholesale and retail trade" (around 690 million euro) and "Real estate" (around 525 million euro). This indicates that employees at SAS spend most of their salary on shopping, groceries and rent. The sector "Wholesale and retail trade" also accounts for most of the induced employment (circa 7,300 jobs), followed by the sector "Accommodation and food service activities" (circa 6,000 jobs). The employment impact in the latter sector is relatively high, due to the relatively low labour productivity within this sector. For the real estate sector, the opposite applies.

On average, labour productivity for the induced employment generated by SAS is around 110,000 euro per year. This is comparable to the average labour productivity in the Scandinavia economy as a whole.

In 2024, SAS denotes the highest induced impact in Norway (1.2 billion euro in GDP and 11,000 jobs), followed by Denmark (0.7 billion euro in GDP and 6,000 jobs) and Sweden (0.6 billion euro in GDP and 6,000 jobs). The variation in induced impact is largely explained by variation in the direct and indirect economic impact between the countries.

Figure 3.5 Expenditures of earnings related to SAS activity support a wide range consumption in Scandinavia.



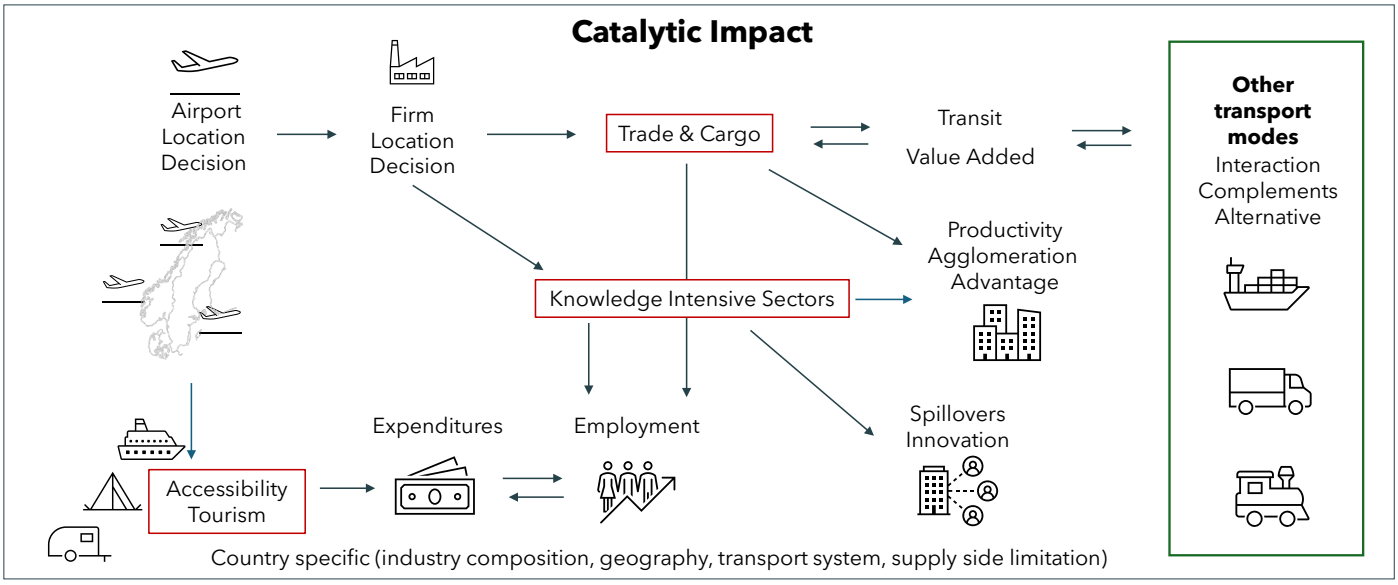
Source: SEO Amsterdam Economics (2025)

3.5 Catalytic impact

The catalytic impact of airports refers to the broader economic benefits that extend beyond direct and indirect employment and income generated by airport operations. These impacts arise from improved connectivity, which enhances productivity, facilitates trade, attracts foreign direct investment (FDI), and supports the development of knowledge-intensive industries. Airports serve as critical nodes in global and regional transport networks, enabling the efficient movement of people, goods, and services. By reducing travel time and increasing accessibility, they contribute to agglomeration economies, stimulate innovation, and reinforce the competitive positioning of cities and regions within global value chains.

Empirical research shows that regions with high-quality air connectivity tend to exhibit stronger economic performance, particularly in sectors reliant on fast logistics, international collaboration, or frequent face-to-face interaction. The catalytic effects of airports are often realized through increased tourism, business travel, and international talent mobility. Moreover, airport-induced accessibility can influence firm location decisions and labor market dynamics by expanding job search areas and enabling flexible commuting. While quantifying catalytic impacts remains methodologically challenging due to attribution complexities, they are a crucial component of comprehensive economic impact assessments in transport economics and regional development planning. A stylized representation of the pathways air access can have downstream sectors in Figure 3.6 showcases the parts considered here: tourism, productivity, innovation and trade.

Figure 3.6 The catalytic impact of air connectivity affects the countries overall productivity, trade and tourism



Source: SEO Amsterdam Economics (2025).

Tourism

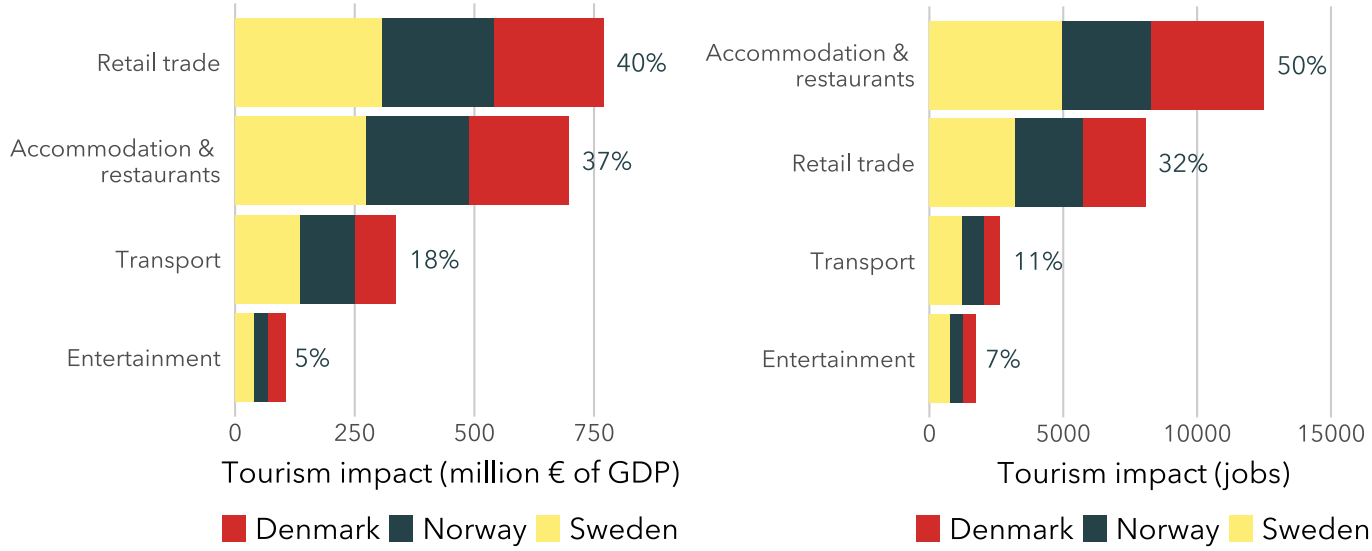
SAS plays a vital role in supporting the Scandinavian tourism sector. The airline enables tourists to visit the region and enjoy Scandinavia's nature and cultural richness. The reliance of tourists on air transport is highest in Norway, with around 60 percent of international tourists entering the country using air transport. In Denmark and Sweden approximately 40 percent of international tourists arrive by plane. These figures are sourced from the national tourist offices. Spending by air tourists generates GDP and employment in the Scandinavian countries. We allocate this tourism economic impact to SAS in proportion to its market share in terms of flights in each country.

The total tourism economic impact of SAS amounts to 1.9 billion euro in GDP and 25,000 jobs in 2024. Based on tourism spending statistics from the national tourists offices we allocate this impact to economic sectors (see Figure 3.7). The sectors "Wholesale and retail trade" (770 million euro in GDP and 8,000 jobs) and "Accommodation and food service activities" (700 million euro in GDP and 13,000 jobs) account for the largest share of both the GDP and the employment impact. A relatively low sectoral labor productivity explains the relatively high employment impact within the accommodation and food service sector.

On average, labor productivity of tourism jobs linked to SAS amounts to approximately 76,000 euro, lower than the average labor productivity in the Scandinavian economy (114,000 euro). This shows the predominance of sectors with relatively low labor productivity within tourism, like the accommodation and food service sector.

In 2024, the tourism economic impact of SAS is highest in Sweden (0.8 billion euro in GDP and 10,000 jobs). The impact in Denmark (0.6 billion euro in GDP and 8,000 jobs) and Norway (0,6 billion euro in GDP and 7,000 jobs) are comparable. Although in Norway the share of tourists relying on air transport is relatively high, SAS's tourism economic impact is not the highest in this country. A main reason is that Norway's total tourism market is smaller than that of Denmark and Sweden. Total expenditures by all international tourists in Norway amounts to approximately 6 billion euro in 2024, against 8 billion euros in Denmark and 9 billion euros in Sweden.

Figure 3.7 SAS plays a vital role in supporting the tourism sector



Source: SEO Amsterdam Economics (2025). OECD category names have been shortened to enhance graph readability.

Productivity, innovation and trade

Beyond its direct contributions to employment and income, SAS enhances regional and national economic performance by improving connectivity, which facilitates knowledge exchange, access to international markets, and integration into global value chains. Frequent and reliable air links provided by SAS support business travel, enable face-to-face interaction, and reduce transaction costs–factors known to stimulate innovation and productivity growth. Moreover, improved air connectivity contributes to trade expansion by lowering logistical barriers and increasing the speed and reliability of goods and services exchange. The analysis that follows explores these mechanisms and provides evidence-based insights into how SAS's network fosters long-term economic dynamism.

Socio-economic impacts are specific to the characteristics of the airline, airports and the region studied, such as business to leisure share, typology and frequency of connectivity, mode alternatives etc. (see a literature overview in Zhang and Graham; 2020 and SEO; 2024). To assess the range of economic impacts associated with airports in Europe, it is possible to compare the results of 31 impact studies. Out of those, 28 studies cover the years 2015 to 2023 for 12 EU countries. These studies vary in scope, with some focusing on specific airports, while others examine groups of airports or all airports of an entire countries. The other three studies are comprised of reports analyzing the economic impact of all airports globally and by world region from ATAG (2021), and for the European airports from InterVISTAS (2015) and SEO (2024).

Akin to a meta-analysis, the boxplots in Figure A.3 in the Appendix provides information for the main findings of the underlying 31 studies covering together all airports and therefore airlines globally. In particular, the boxplots show the distribution of the ratios of the direct impact to the indirect, induced, catalytic and total impact of the submitted impact studies. A higher ratio indicates a greater direct impact relative to other impacts, with a ratio of one suggesting equal sizes between the direct impact and the impact being compared. In other words, for all ratios below 1, the direct impact is smaller than the other impact it is being compared with. For this study, since all impacts are calculated bottom-up in the previous sections, the most interesting ratio is the one between direct impact and catalytic impact. The figure shows that that the catalytic impact bandwidths is between 0.2 and 0.7 and as such the catalytic impact is between 1.2 and five times larger than the direct impact. We use the mid-value (0.5) as the ratio to apply here and advice the reader to consider the range as reflective of country differences and inherent uncertainties. There is some statistical evidence (e.g. see Pot and Koster, 2022) that suggests that the economic impact of airports, in particular the catalytic impact, is dependent on the size of the airport, with larger airports having a larger impact. As such, considering that SAS has a heterogenous portfolio of airports in Scandinavia, the average ratio seems appropriate. Any direct inference of the catalytic impact or the net economic impact of all impacts jointly is hampered by the necessity of large panel data series and the bi-directional nature of aviation and the economy, see SEO (2024) for an in-depth elaboration and an estimation of the impact of European aviation between 2004 and 2019.

Table 3.4 Catalytic impact from innovation and trade amounts to €5.6 billion and 41 thousand jobs

	GDP in billion	Jobs
Sweden	€ 1.1	9,000
Norway	€ 2.3	14,200
Denmark	€ 2.3	17,400
Total	**€ 5.6**	**40,600**

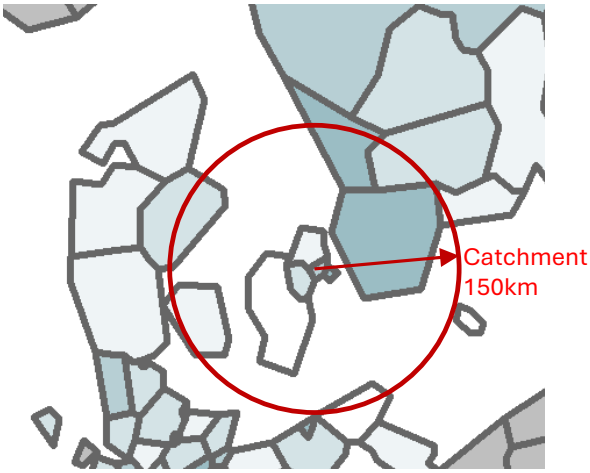
Source: SEO Amsterdam Economics (2025).

3.6 The wider benefits of CPH as a hub to the region

Hub airports such as CPH offer distinct advantages over non-hub airports, particularly in terms of network efficiency, connectivity, and economies of scale. By concentrating traffic and airline operations at a central location, hub airports enable airlines to implement hub-and-spoke models, allowing for a higher frequency of flights and more indirect connections between smaller origin-destination pairs. This structure can reduce per-passenger operating costs by maximizing aircraft load factors and minimizing redundant routes. From an economic standpoint, hub airports tend to attract more air services and ancillary businesses, generating spillover effects in the form of employment, trade facilitation, and regional accessibility, see Pels (2021) for a recent overview of the discussion.

SAS operations at Copenhagen airport (CPH) benefit Copenhagen, Denmark but also the neighbouring regions in Southern Sweden. The benefit of aviation is usually centred around the airport in what is commonly referred to as catchment area. In the European Union (EU), particularly in the context of aviation policy and regulatory impact assessments, generally assumes a catchment area radius of approximately 100 to 150 kilometers around a large airport. This corresponds to a travel time of about 1 to 1.5 hours by car or public transport. The assumption is based on the idea that most passengers are willing to travel this distance to access a major airport offering a wide range of destinations and flight frequencies. Due to its extensive operations and hub status, we use a 150km catchment area radius as an assumption for the following section, see Figure 3.8, and consistent with SEO (2024).

Figure 3.8 The Greater CPH and the effect on Denmark and Sweden within 150km catchment area



Source: SEO Amsterdam Economics (2025)

The catchment area of Copenhagen Airport (CPH) extends well beyond the Danish capital and includes a significant portion of Southern Sweden, facilitated primarily by the Øresund Bridge, which connects Copenhagen with Malmö, as well as regional road and rail infrastructure that enhances cross-border mobility. This transnational accessibility allows CPH to serve key urban centers in the Swedish NUTS 2 region SE22 (Sydsverige), such as Helsingborg, Lund, Halmstad, and Malmö, effectively integrating parts of Skåne County (SE224) and Blekinge County (SE221) into its functional hinterland. The economic significance of this Swedish region is underscored by its combined GDP of €70.8 billion, representing approximately 12.1% of Sweden's total GDP (Statistics Sweden, 2021). The airport's ability to serve this cross-border population and economic zone reinforces its strategic role in Northern Europe's air transport network.

To assess an airports wider economic role and the required rebalance of economic impacts between countries is not standard in the economic impact literature as it is reliant on strong assumptions, (non-public) data and data triangulation. Nonetheless, an attempt is made here, see Table 3.5 for key assumptions per economic impact type and country. Noteworthy assumptions are that approximately 25% of the employees in CPH live in Sweden based on resident registration of SAS employees at CPH (not publicly available). Additionally, and equally not publicly available., around 12% of passengers that start their travel from CPH are residents in southern Sweden. We assume this is an approximation of the catalytic effect that occurs in Sweden instead of Denmark, considering that there might be a balance between in-/outbound business travelers.[11] Lastly, and perhaps most importantly, we add 25% to the share of inputs Denmark sources from Sweden for SAS activities, based on the aforementioned (see section 3.3) higher share of domestic production (around 75%) in Norway and Sweden versus 25% in Denmark.

[11] Leisure travel is not considered in this section since data is not available.

Table 3.5 The wider benefits of Greater Copenhagen depend on the economic impact type

Impact	Type	Denmark (DK)	Sweden (SE)	Notes
Direct	GDP	100%	0%	Direct impact occurs at airport
	Jobs	75%	25%	SAS internal data, assume similar for airport
Indirect	GDP	DK impact according to DK inputs only	Exports to Denmark not considered. Underestimate from Scandinavian perspective +25%	Aviation inputs: DK, 25% local vs SE with 75% local (section 3.3). 12% of Danish imports are from Sweden, approximately 4% of GDP (World Bank, 2022).
	Jobs	SE import omitted – underestimate	SE export part omitted-underestimate +25%	Country scope of Input-Output table
Induced	GDP	Based on impact 100% profit direct 75% wage direct	Redistribute 25% wage direct	Combines wage earnings from direct and indirect according to residency Indirect might be underestimate
	Jobs	75% from direct	25% from direct 25% underestimate indirect	Based on assumptions for direct and indirect impact.
Catalytic - Tourism		Small, unknown bias according to travel itinerary of visitors	Small, unknown bias according to travel itinerary of visitors	Potential underestimate of aviation and overestimate of rail/other modes due to arrivals and onward travel at CPH. Requires in-depth study.
Catalytic – Productivity and Trade		Potential overestimate of catalytic impact in DK based on CNU from CPH	Potential underestimate now within DK. Predict size according to tickets of SE residents with SAS through CPH. Potential underestimate of transfers +12% from DK to SE	Catalytic productivity effect might not be spatially located entirely based on catchment area since cargo and trade have different transport cost structure than passengers. Equally R&D and innovation might have long-distance spillovers, see De Groot et al. (2009).

Source: SEO Amsterdam Economics (2025).

The hub status of Copenhagen airport benefits the Greater Copenhagen region which includes Southern Sweden and therefore has benefits to both countries. Passengers from Southern Sweden are able to travel from CPH, while international travelers that want to reach Southern Sweden for business and tourism can equally rely on CPH. According to our analysis in chapter 3 and the assumptions in Table 3.5, SAS in the Greater CPH region is associated with €5.2 billion value added and 42 thousand jobs. Of those, Southern Sweden has about €520 million in economic benefits from SAS at CPH and about 6 thousand jobs in various roles at the airline and airport but also other sectors up and downstream of aviation. A main takeaway is that SAS and CPH are important to Sweden's and Denmark's economies.

The larger size of CPH benefits both countries, since smaller airports contribute less to GPD and jobs on a per flight basis than smaller airports. We allude to this in an example in section 2.2 where a flight at a flight from Copenhagen creates approximately 52,000 euros direct impact versus a flight at Aarhus around 40,000 euros. This is indicative of the larger benefits of centralized connectivity at a hub airport instead of spreading connectivity over multiple

airports. For an in-depth analysis of the benefits and challenges due to cross border effects of transport infrastructure and the associated investment decisions, we recommend Rietveld (2012).

Table 3.6 SAS at Greater CPH is associated with economic benefits in Southern Sweden

Airport / Country	Direct impact	Indirect impact	Induced impact	Catalytic Tourism	Catalytic Productivity and trade	Total
GDP impact of SAS in 2024 (bln euro)						
CPH	€ 1.36	€ 0.57	€ 0.57	€ 0.49	€ 1.96	€ 4.95
Allocated Denmark	€ 1.36	€ 0.57	€ 0.57	€ 0.49	€ 1.72	€ 4.72
Allocated Sweden	NA	€ 0.14	€ 0.14	NA	€ 0.23	€ 0.52
Greater CPH	€ 1.36	€ 0.71	€ 0.72	€ 0.49	€ 1.96	€ 5.24
Employment impact of SAS in 2024 (number of jobs)						
CPH	8,426	4,207	5,287	6,741	14,943	39,604
Allocated Denmark	6,319	4,207	5,287	6,626	13,150	35,589
Allocated Sweden	2,106	1,052	1,322	NA	1,793	6,273
Greater CPH	8,426	5,259	6,609	6,626	14,943	41,863

Source: SEO Amsterdam Economics (2025).

Case study continued: Economic impact of the route to JFK

Following up on the connectivity case study between CPH and JFK, we determine the economic impact for a specific route. Similar to the case study in Chapter 2, the route CPH to John F. Kennedy (JFK) airport in New York serves an example. SAS operates twelve flights per week to this destination in 2024. Hence, this route accounts for 0.3 percent of the total direct SAS flights.The economic impact of the CPH-JFK route of SAS can then be approximated by multiplying the airline's total economic impact by this route's share in the total number of SAS flights. This results in a total economic impact for the CPH - JFK route of approximately 60 million euro in 2024. However, for several reasons this estimate could also be larger on this particular route. For instance, this calculation does not take into account the hub premium, i.e. that the possibility to fly to JFK from CPH makes CPH more attractive. Accordingly, the CPH – JFK route stimulates demand and load factors on feeder routes from regional Scandinavian airports to CPH. Our calculations abstract from the fact that the JFK route is also likely to have a higher catalytic impact from larger market access and higher productivity and innovation potential in North America in comparison to other routes. After all, this route provides direct access to New York, which is home to one of the largest business districts in the world. Differences between the CPH – JFK route and other SAS routes regarding load factors, the seat capacity of the aircraft types used, etcetera, might further influence the economic impact. Back on the envelope, and assuming that we should adjust the economic impact by a factor two due to omitted variables stated before, we can approximate the economic benefit of each flight. In such a case, the economic value of a flight between CPH-JFK would be about €200 thousand per flight.[12]

[12] For 12 departing flights in 52 weeks, €60 million adjusted with factor two due to the underestimate of the catalytic impact: (€60000000*2)/(12*52). To put this economic impact of a marginal flight between international hubs into context, it helps to consider the expenditures by passengers on tickets, which would be around €85 thousand for a full flight. Note furthermore that ticket cost are linked to the economic impact components such as wages at SAS and CPH and costs that cover the supplies to the aviation industry.

4 Conclusions

Scandinavian Airlines (SAS) plays a pivotal role in facilitating both intra-regional and international connectivity across Scandinavia, making its operations integral to the region's mobility and economic infrastructure. This economic impact assessment examines SAS's contributions to employment, gross domestic product (GDP), and the broader aviation value chain.

Connectivity

SAS operates approximately 13,000 direct flights per week, serving an annual passenger volume of 37.3 million. Its network ensures robust connectivity within Scandinavia and to key international destinations, with services to 32 Scandinavian airports. These range from small, remote regional fields to major capital airports such as Oslo, Stockholm, and Copenhagen. SAS holds a market share between 25% and 77% in individual Scandinavian countries and accounts for 31% of the overall market across the region—effectively making every third departing flight Scandinavian-wide an SAS service. The airline provides direct connections to 139 international destinations across 41 countries. Copenhagen Airport (CPH), the primary hub for SAS, offers daily service to 7 out of the 10 most prominent global hub airports, thereby ensuring strong onward international connectivity. In turn, CPH acts as the gateway for international passengers entering Scandinavia via SAS's well-integrated route network.

Economic Impact

SAS contributes significantly to regional economies through multiple channels. Direct operations, including those at airports, generate €3.9 billion in GDP and support 23,000 jobs. Indirect effects, arising from procurement and service contracts, contribute an additional €4 billion in GDP and 29,000 jobs. Furthermore, induced impacts—linked to employee spending—add €2.5 billion in GDP and 23,000 jobs. Catalytic effects, encompassing broader economic benefits such as tourism, increased productivity, agglomeration effects, innovation in service sectors, and enhanced trade and market access, amount to a combined €7.5 billion and 65,000 jobs. Approximately one-third of this catalytic impact stems from tourism, while the remainder is driven by the enabling effects and positive externalities of air connectivity. The scope of the analysis excludes quantifying negative externalities. Overall, the scale and distribution of SAS's economic impact are closely aligned with the scope and structure of its operational network. In total, SAS activity is therefore linked to 1.4% of Scandinavian GDP (€17.9 billion) and 1.3% of the labor force (141,000 jobs).

This research compiled the economic impact of SAS in Scandinavia in 2024. Upcoming analysis will address the outlook on business operations and connectivity also including developments within the airlines alliance. Exploring the future of SAS operations and Copenhagen Airport (CPH) as a regional hub is a worthwhile research endeavour due to its far-reaching implications for connectivity, regional development, and transport policy in Scandinavia. Assessing the potential expansion of hub capacity at CPH is especially relevant also for Norway and Sweden, as it could enhance international access not only for metropolitan areas but also for peripheral and remote regions. For less accessible parts of these countries, improved hub connectivity can reduce total travel times, increase accessibility to global markets, and mitigate geographic disadvantages. Moreover, with other major European hubs facing capacity constraints, CPH may be strategically positioned to absorb future demand, strengthening its competitive advantage.

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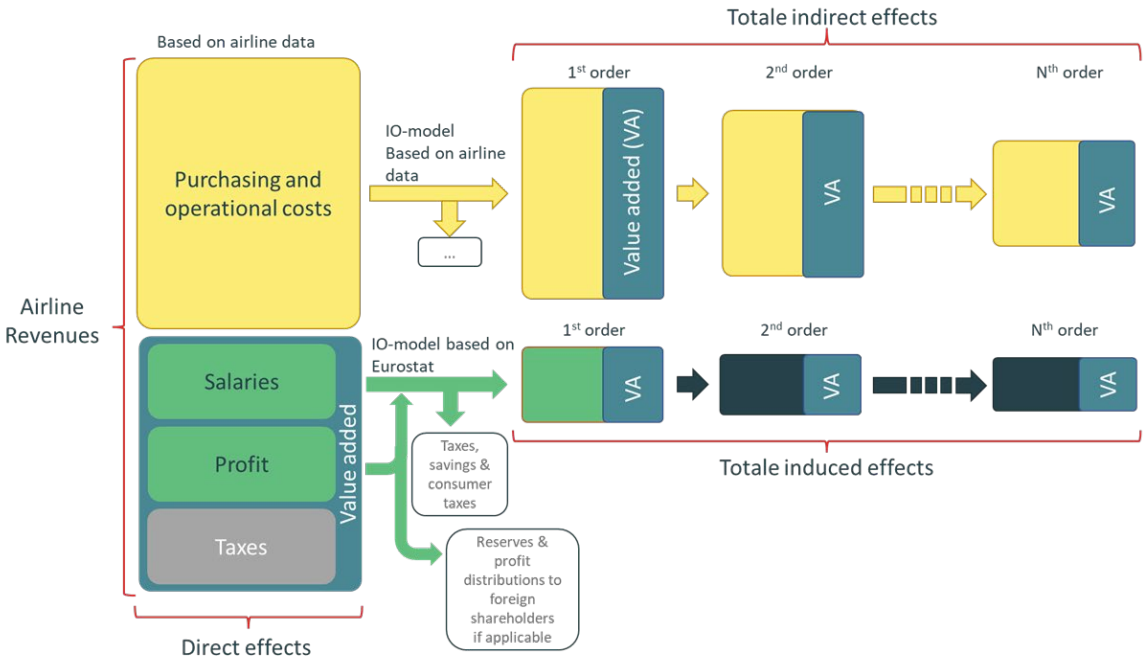
Appendix A Methodology in-depth

Figure A.1 The Input Output schematic describes the cascading relationship between economic impacts



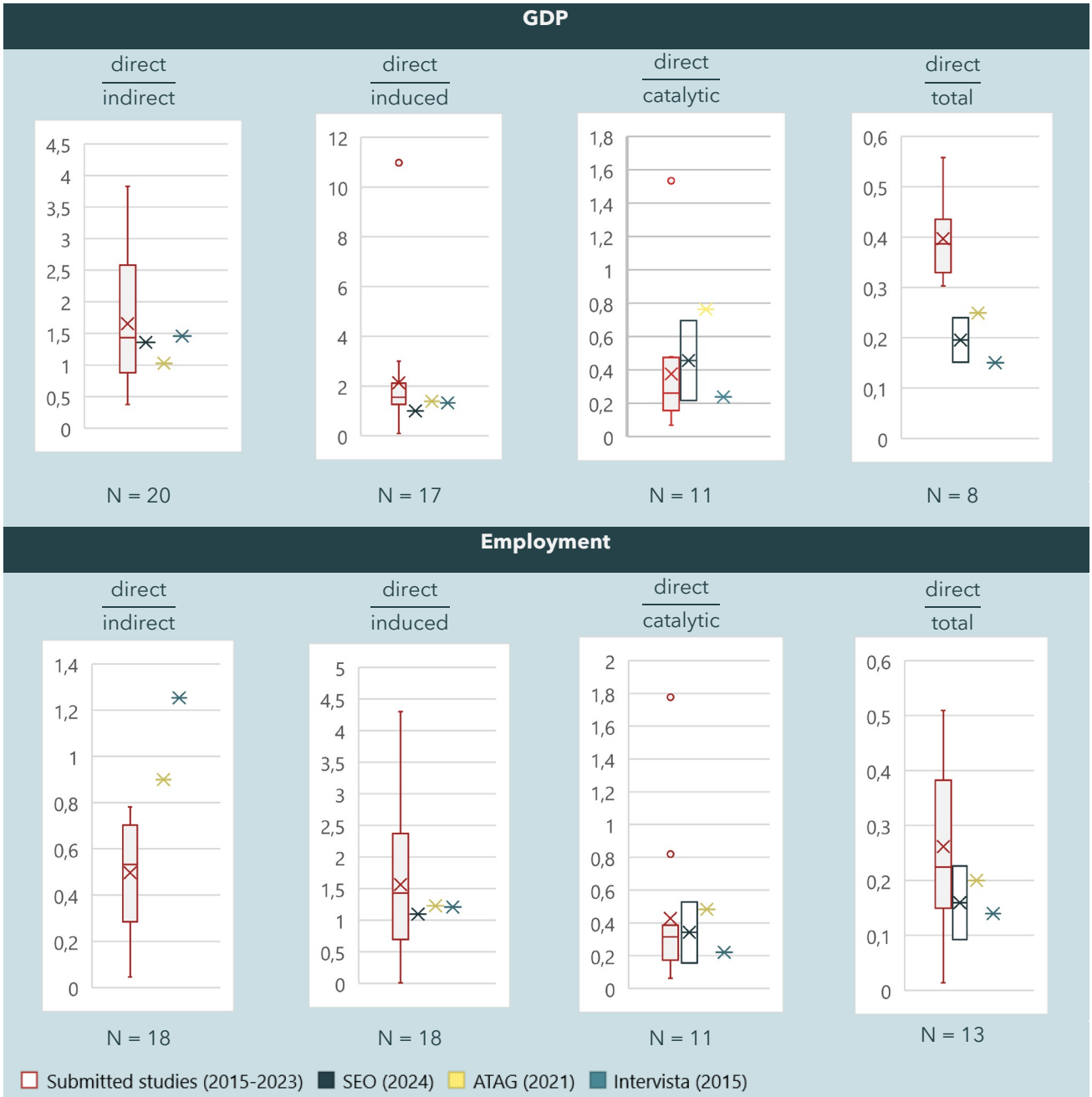
Source: SEO Amsterdam Economics (2025).

Figure A.2 An example of an Input Output table according to sectoral division (fictive values)

	Destination of production outputs: Transport sector	Agriculture	Petroleum products	Wholesale	74 other sectors	Total production used by other sectors:
Transport sector	€220 mln	€250 mln	€30 mln	€ 70 mln	€1 630 mln	+ €2 200 mln
Agriculture	€2 mln	€...	€...	€...	€...	+ €...
Petroleum products	€450 mln	€...	€...	€...	€...	+ €...
Wholesale	€270 mln	€...	€...	€...	€...	+ €...
74 other sectors	€1 500 mln	€...	€...	€...	€...	+ €...
	+	+	+	+	+	
Total production inputs:	€2 440 mln	€...	€...	€...	€...	
Value added:	€3 180 mln	€...	€...	€...	€...	
	+	+	+	+	+	
Production:	€5 600 mln	€...	€...	€...	€...	

Source: SEO Amsterdam Economics (2025).

Figure A.3 The relative size of economic impacts compared across international studies



Note: The boxplots summarize the distribution of data. The box represents the interquartile range, which spans from the first quartile to the third quartile. The length of the box indicates the spread of the middle 50% of the data. The line inside the box represents the median, while the cross represents the mean. Whiskers extend from the edges of the box to indicate the range of the data. Data points beyond the whiskers are considered outliers and are plotted individually. For the ratios direct to catalytic and direct to total, there is a whisker for the SEO study as the catalytic effect is once only calculated as only the tourism effect and once as the tourism plus spillover effect.

Source: SEO Amsterdam Economics (2025).

Appendix B Economic impacts per country

Denmark

Table B.1 Impact of SAS on Danish economy per impact type in 2024

Impact type	GDP impact (in billion €)	Employment impact (in jobs)
Direct impact (SAS activities)	€ 0.6	3,000
Direct impact (support of other airport activities)	€ 0.9	6,000
Indirect impact	€ 0.7	5,000
Induced impact	€ 0.7	6,000
Tourism catalytic impact	€ 0.6	8,000
Other catalytic impact	€ 2.2	17,000
Total	**€ 5.6**	**45,000**

Source: SEO Amsterdam Economics (2025).

Norway

Table B.2 Impact of SAS on Norwegian economy per impact type in 2024

Impact type	GDP impact (in billion €)	Employment impact (in jobs)
Direct impact (SAS activities)	€ 0.5	3,000
Direct impact (support of other airport activities)	€ 1.0	5,000
Indirect impact	€ 2.2	13,000
Induced impact	€ 1.2	11,000
Tourism catalytic impact	€ 0.6	7,000
Other catalytic impact	€ 2.3	14,000
Total	**€ 7.7**	**53,000**

Source: SEO Amsterdam Economics (2025).

Sweden

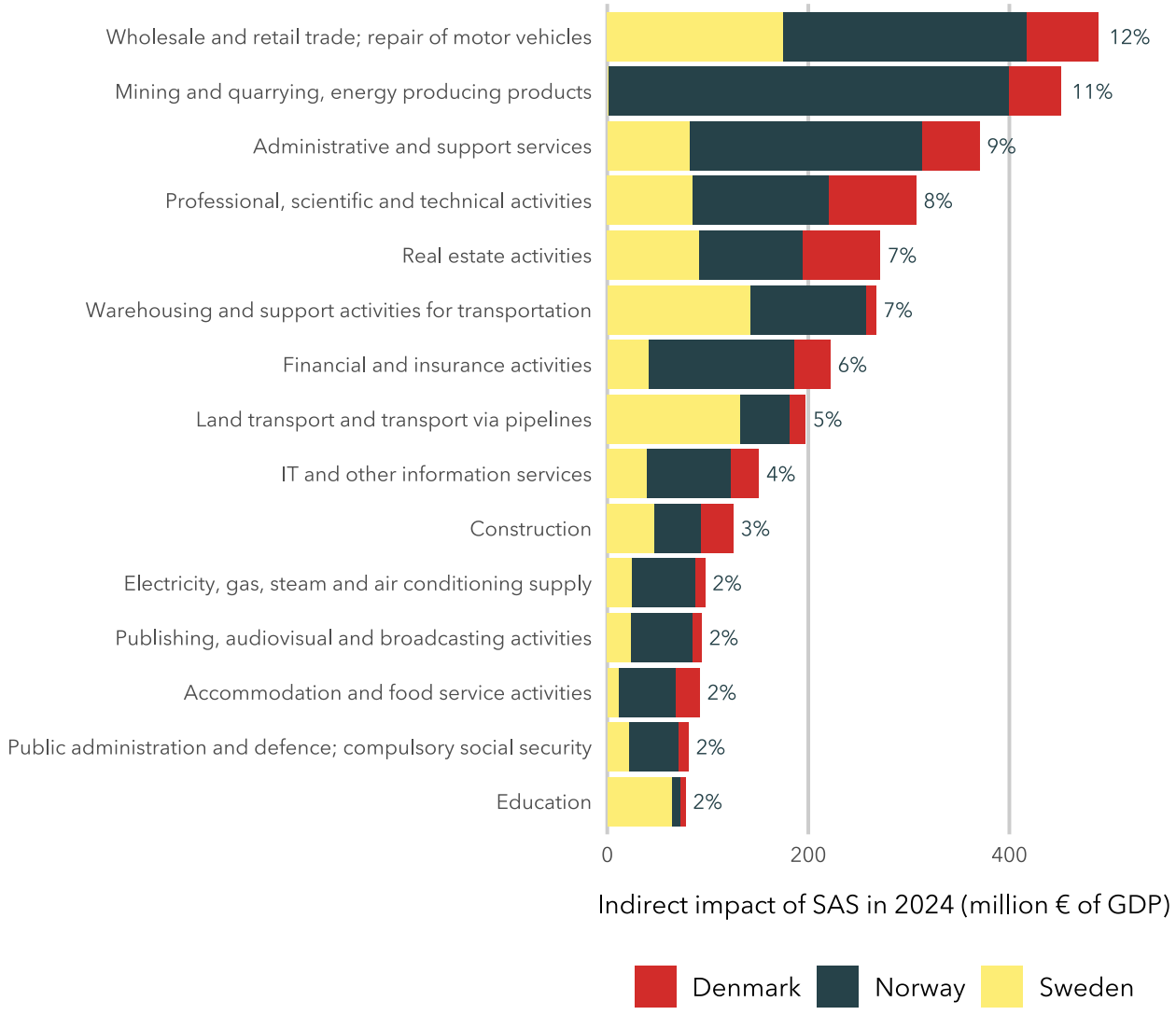
Table B.3 Impact of SAS on Swedish economy per impact type in 2024

Impact type	GDP impact (in billion €)	Employment impact (in jobs)
Direct impact (SAS activities)	€ 0.6	3,000
Direct impact (support of other airport activities)	€ 0.3	4,000
Indirect impact	€ 1.2	11,000
Induced impact	€ 0.6	6,000
Tourism catalytic impact	€ 0.8	10,000
Other catalytic impact	€ 1.1	9,000
Total	**€ 4.6**	**43,000**

Source: SEO Amsterdam Economics (2025).

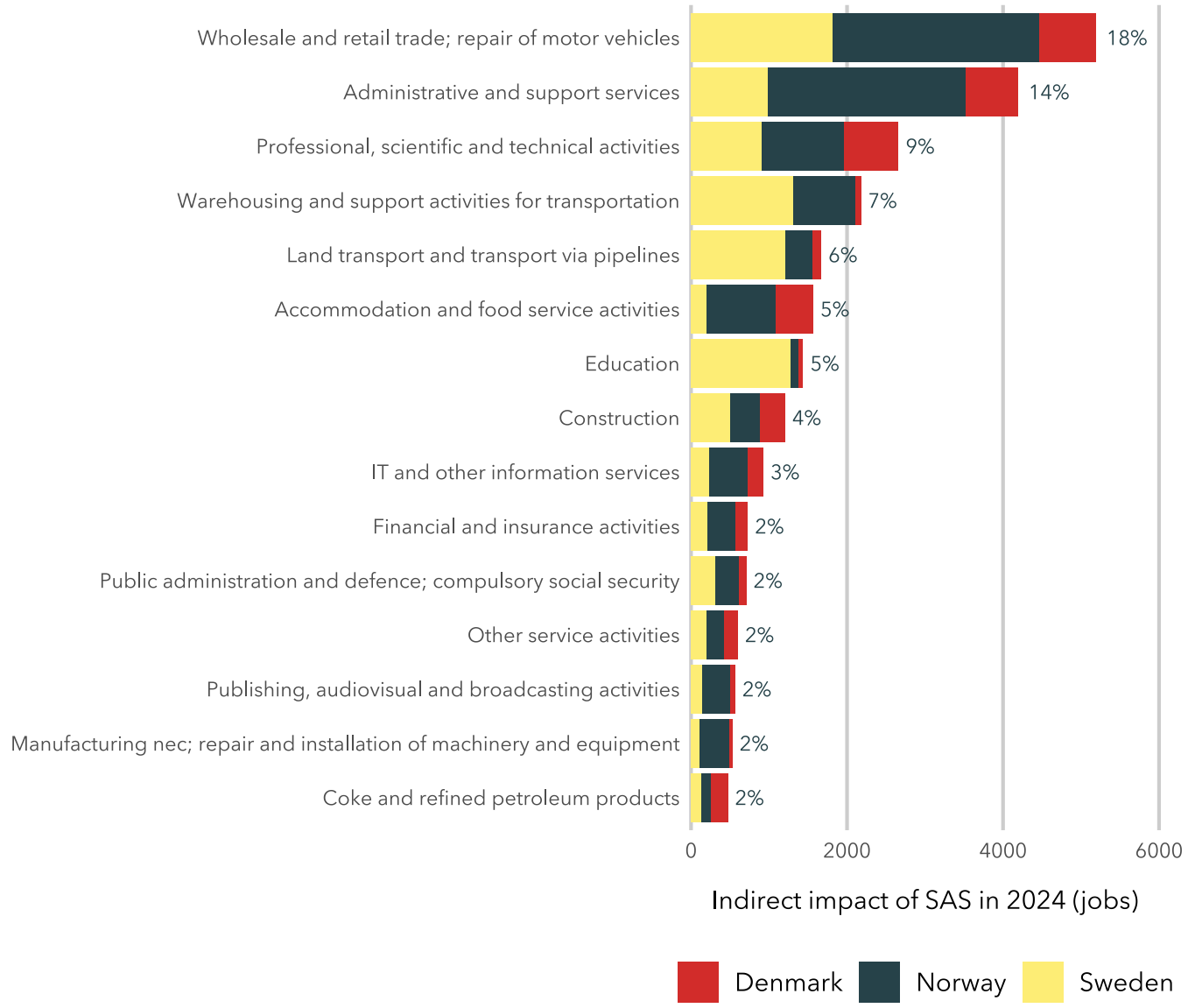
Appendix C Indirect impact per country

Figure C.1 Most of SAS's indirect economic impact ends up in the sector "Wholesale and retail trade"



Source: SEO Amsterdam Economics (2025).

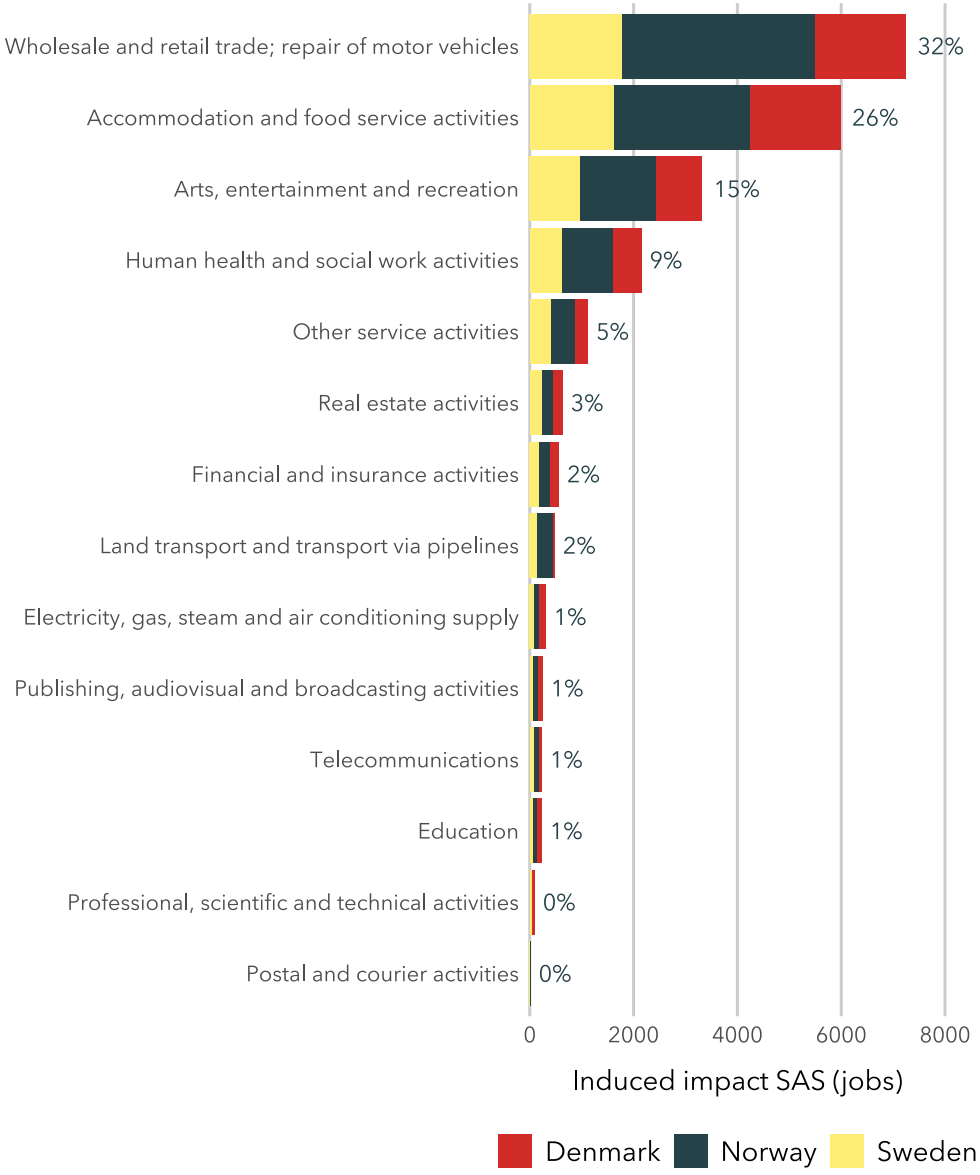
Figure C.2 Indirect impact shows a pronounced difference in aviation supply activity between country



Source: SEO Amsterdam Economics (2025).

Note: The figures show the fifteen sectors with the highest indirect economic impact linked to SAS

Figure C.3 Induced impact from wages shows large similarities of expenditure priorities of households in these countries



Source: SEO Amsterdam Economics (2025).

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