



Sweden

Air Transport Regulatory Competitiveness Indicators



SUMMARY

- Air transport is a key enabler of economic activity in Sweden, supporting 192,000 jobs and contributing SEK 164.3 billion (EUR 17.4 billion) to the Swedish economy, which is equivalent to 3.8% of Swedish GDP.
- Sweden is the 14th largest aviation market in Europe (measured by the IATA Connectivity Index¹). Air connectivity grew by 48% between 2013 and 2018. 23m passengers departed from Sweden's airports in 2017. This is equivalent to 34.7 million terminal passengers (departing passengers includes passengers connecting through Sweden. Terminal passengers includes both arrivals and departures.)
- In order to facilitate the continued growth of aviation and maximize the benefits of air transport, Sweden should:
 1. Abolish or reduce the Aviation tax, known as the Environmental tax, and promote implementation of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as a tool to decrease carbon emissions in Sweden;
 2. Promote the availability of renewable aviation fuels and engage in development of new and cleaner technologies;
 3. Align airport charges process with international best practice in order to ensure efficient consultation and transparent, fair, and cost-related charges; and
 4. Ensure that further infrastructure investments, both on the ground and in the air, are cost-efficient and developed in consultation with users.

¹ The IATA Connectivity Index 2018 is a composite measure of the number of transferred passengers weighted by a destination measure in all the airports.

ABOUT AIR TRANSPORT REGULATORY COMPETITIVENESS

The Air Transport Regulatory Competitiveness Indicators (ATRCI) is a framework that measures a country's air transport regulatory competitiveness. Air transport regulatory competitiveness is defined as the set of institutions, policies, and factors that determine the economic benefits that the economy can derive from aviation.

Five key determinants of the ease of doing business have been identified, which contribute to the regulatory competitiveness of a country. These five determinants are the pillars that form the ATRCI and for which performance-based assessments have been made:

Passenger Facilitation (visa requirements, open skies agreements, passenger information and border control processes). These measures support easier movement of persons around the globe and contribute to economic development and growth. Regulations that allow for easier and more secure movement of people and aircraft are therefore essential in unlocking the economic benefits of aviation.

Cargo Facilitation (trade facilitation and e-freight). These measures enhance shippers' experience by enabling the seamless cross-border movement of goods.

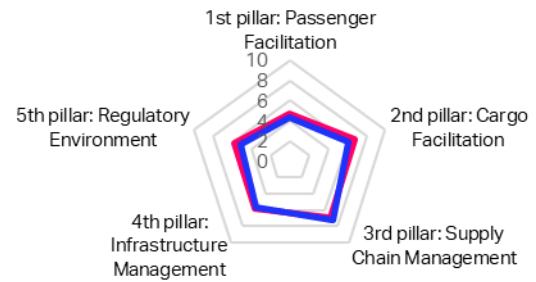
Supply Chain Competitiveness (airport and passenger charges and taxes, airport and air traffic management charging process, fuel supply management, labour efficiency). The competitive, transparent, and reliable supply of services to airlines creates an environment in which passenger demand can be stimulated through more affordable air fares. Effective and clear rules create a stable environment which boosts economic growth.

Infrastructure (available runway and terminal capacity and slots). Air transport depends largely on available infrastructure and how efficiently congested infrastructure is utilized. Without sufficient capacity, airlines cannot enter the market, enhance air connectivity of the country and create seamless connections and short travel times. Effective infrastructure development and management acts as a facilitator of economic growth unlocking benefits that aviation creates.

Regulatory Environment (regulatory framework, legal framework, regulatory implementation). Without stable, clear and transparent regulations, airlines cannot operate effectively and offer competitive ticket prices or air freight rates. A smart regulatory environment and a comprehensive aviation policy are key drivers of positive economic change.

PERFORMANCE OVERVIEW

Index Component	Sweden	Regional average ²
Air Transport Competitiveness Index³	6.0	5.8
1st pillar: Passenger Facilitation	4.7	4.4
2nd pillar: Cargo Facilitation	6.8	6.1
3rd pillar: Supply Chain Management	6.9	7.2
4th pillar: Infrastructure Management	5.8	5.6
5th pillar: Regulatory Environment	5.8	5.1



Sweden's score for Supply Chain Management (3rd pillar) is below the European average despite Sweden's otherwise very high economic performance. The main issues are related to high passenger and aircraft charges and taxes (more on page 3), access to fuel and the airport and air navigation charges process where Sweden has not managed to align the charges setting process with best practise and the ICAO guidelines⁴.

As for infrastructure (4th Pillar), congested airports are becoming a problem and will be a brake on further growth of air connectivity (see more on page 3).

Passenger Facilitation (1st Pillar) represents one of the weakest points of Sweden's air transport competitiveness profile. The surface access infrastructure to and from Arlanda needs to be improved to increase capacity, as the Government has already acknowledged. Together with the general lack of updated infrastructure at Arlanda airport, such as fully automatized solutions, passenger experience suffers. Visa rules are the main issue of passenger facilitation applying restrictive policies on passengers arriving to Sweden. The arrival experience of passengers from outside the Schengen area could be improved by investing in an Automatic Border Control (ABC) System in the most cost-effective way without putting a financial burden on businesses at Swedish airports.

While Sweden scores well for overall air trade facilitation (3rd Pillar), reflecting customs and border processes for airfreight, the score for e-freight facilitation is very low indicating that significant work remains to be done in order for shippers of cargo to and from Sweden to be able to benefit from full implementation of e-cargo processes.

² Regional average consists of scores for 17 European countries: AT, BE, DN, DE, ES, FI, FR, GR, IT, NL, NO, PL, PT, RO, SE, CH, UK.

³ The values for the ATCI range from 0 (worst) to 10 (best). The index consists of 5 pillars and 17 indicators and 26 sub-indicators which are

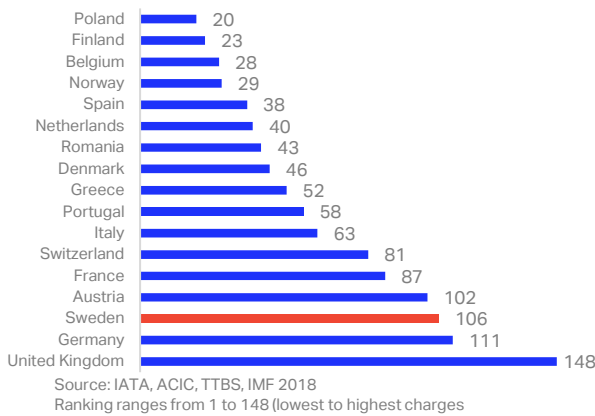
combined together using a simple average (except sub-indicators which are summed together to create a single value for each indicator). These aggregate values form an index score for the country.

⁴ [ICAO's Policies on Charges for Airports and Air Navigation Services](#)

KEY CHALLENGES OF AIR TRANSPORT REGULATORY COMPETITIVENESS IN SWEDEN

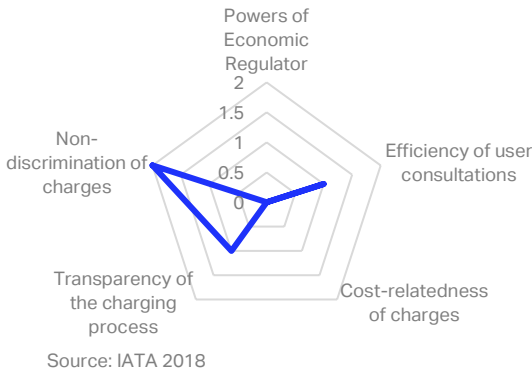
Aviation brings significant benefits to the Swedish economy. However, there are still substantial barriers to the further growth of air connectivity which would help to unlock economic potential of the country. The following page provides an overview of the key challenges of Sweden’s air transport regulatory competitiveness.

Chart 1. Ranking of countries based on airport and passenger taxes and charges



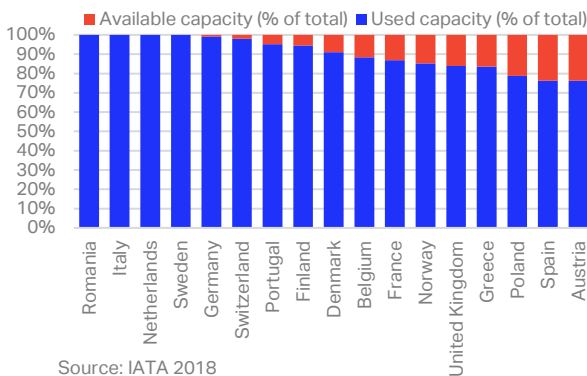
Sweden has recently introduced a new Aviation Tax with the stated aim of reducing the climate impact of aviation. National environmental taxes are an ineffective tool to address aviation’s environmental impacts. This increased charge represents additional costs for passengers making Sweden more expensive as a business destination and a less attractive choice for tourists. The introduction of the Aviation Tax has reduced the score and positioned Sweden further behind its regional peers – Finland, Norway, Denmark, and the Netherlands (Chart 1). Any future measures which will increase costs for airlines to access fuel, for example a duty of fossil fuel reduction or biofuel quota system, without also securing availability of alternative fuels at competitive prices, will also impact Sweden’s competitiveness.

Chart 2. Ineffective airport charges process (maximum = 2)⁵



Sweden has failed to align airport charges process with international best practice, as set out by ICAO (Chart 2). Respectively, the national regulations on airport charges are not fully enforced, giving rise to charges that are not transparent or fully cost-related. These inefficiencies ultimately burden businesses creating uncertain and uncompetitive environment. Moreover, proposed increases to airport and navigation charges in coming years will affect Sweden’s competitiveness, particular relative to peers who have been able to make cost reductions.

Chart 3. Low terminal infrastructure capacity⁶



Stockholm Arlanda, the main hub airport in Sweden, has reached its terminal capacity (Chart 3). The second and third Swedish airports Stockholm Bromma and Gothenburg – Landvetter are currently already operating at full capacity. With connectivity growing rapidly in recent years, Sweden should utilize efficiently the current infrastructure and to ensure cost-effective airport expansion by consulting the relevant stakeholders. Furthermore, Sweden should ensure efficient and non-discriminatory usage of airspace and make sure that introduction of new technology is aligned with the operational needs of the industry.

⁵ Values for the sub-indicators (0-to-2 scale) are summed together and transformed to 0-to-10 scale to create a single value for the Airport Charges Process Indicator

⁶ The main hub for each country: AMS, ARN, ATH, BRU CDG, CPH, FCO, FRA, HEL, LHR, LIS, MAD, OSL, OTP, VIE, WAW, ZRH

FROM PERFORMANCE MEASURES TO RECOMMENDATIONS

Sweden's current aviation strategy has an objective to increase air transport connectivity. It is important to create an environment where existing businesses can flourish, and new business opportunities are created. Sweden should therefore focus on:

1. Aircraft and passenger taxes and charges

Abolish or reduce the Aviation tax, known as the Environmental tax and foster implementation of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as a tool to decrease carbon emissions in Sweden. Promote the availability and uptake of renewable aviation fuels.




2. Airport charges process

Align airport charges process with international best practice in order to ensure efficient consultation and transparent, fair, and cost-related charges.

3. Terminal infrastructure capacity

Ensure that further infrastructure investments, both on the ground and in the air, are cost-efficient and developed in consultation with users.

Chart 4. Forecast scenarios for passenger traffic, jobs and GDP footprint*

			
	PASSENGERS	GDP	JOBS
2017	23.2 m	€17.4 bn SEK 164.3 bn	191,115
2037	Current Trends	€24 bn SEK 227.1 bn	209,933
	Upside	€25.8 bn SEK 243.9 bn	225,681
	Downside	€20.8bn SEK 197 bn	181,811

* Passengers are counted as departures, including connections. The passenger forecasts are based on the IATA 20-year passenger forecast (October 2018). Data on GDP and jobs are from Oxford Economics. GDP and jobs forecasts are from IATA Economics.

In 2017, 23 million of passengers departed from Sweden's airports. This is equivalent to 34.7 million terminal passengers⁷. Robust air connectivity is an enabler of economic activity in Sweden's creating 192,000 jobs and supporting SEK 164.3 billion (EUR 17.4 bn) to the economy in 2016.⁸ In the next 20 years the number of departing passengers from Sweden will increase by 38%.⁹ However, if Sweden is able to implement the policies noted in this report, there is an upside potential to increase this value and ultimately deliver wide economic benefits through the higher number of jobs and contribution to GDP.

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The aim of the ATRCI

The Air Transport Regulatory Competitiveness Index is a framework that assesses the regulatory environment across countries and how governments facilitate or inhibit growth of the air transport sector through their regulations. The framework measures a country's aviation regulatory competitiveness and offers a snapshot of where the potential gaps are in following the international best practice. It provides a guideline to build up a more efficient regulatory environment to unlock the economic benefits that aviation creates.

Methodology

ATRCI uses both quantitative and qualitative data that are normalized to 0-to-10. Qualitative data were collated based on an objective framework. Respectively, quantitative data are used from international organizations and partner organizations. Sources: Eurocontrol, United Nations World Tourism Organization, Verisk Maplecroft, World Economic Forum. All dates relate to 2018 unless stated otherwise.

The index structure and computation

The index contains three levels of values which are combined together applying a simple average (if not stated otherwise). From the highest to the lowest level: Index value, Pillar values, Indicator values and Sub-indicator values. At the lowest level (sub-indicator) the values are summed to create one single value for an indicator. All indicator values within a pillar are then aggregated using an arithmetic mean in order to produce the Pillar score. At the highest level of aggregation (Index value), the score of the five pillars are combined applying a simple average to create one single value for Air Transport Regulatory Competitiveness Index for each country.

⁷ Departing passengers includes passengers connecting through Poland and terminal passengers includes both arrivals and departures.

⁸ ATAG 2018

⁹ Oxford Economics 2017