

The economic and environmental impacts of reducing the capacity of Schiphol Airport

A Cebr report for the Red Schiphol Campaign

April 2023

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London, April 2023

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1 Introduction

Contextual background

Last year, the Dutch state announced that it would be the first in the world to permanently limit the number of flights at Amsterdam's Schiphol Airport, in an effort to reduce noise and air pollution. This plan, known as the '440 decision', will come into effect in the 2024/25 season¹, and represents an 11% cut from its 2019 peak, from almost 500,000 flights per year down to 440,000.²

The state previously tried to bring in a preliminary limit of 460,000 flights per year during the 2023/24 season, but this was ruled unlawful in court after KLM and other airlines claimed that they were not consulted as per EU regulations. Attention now turns to the '440 decision'.

The significance of this move should not be understated; Schiphol is the busiest airport in Europe in terms of aircraft movements, and the third busiest in terms of passenger volumes, behind only London Heathrow and Paris Charles de Gaulle.

It is the main international airport of the Netherlands, with flights to 313 direct destinations in 2022 (by comparison, Heathrow currently serves approximately 223 destinations), with the vast majority (70.5%) of passengers flying to and from Europe. By contrast, cargo movements are more concentrated, with the majority of cargo volume being between Schiphol and Asia (46.3%), followed by North America (17.6%). These figures suggest that the global impacts from the reduction in flight capacity will be related to different geographical regions for passengers compared to for trade. Schiphol also acts as an important international hub, with a high proportion of transfer passengers: 36.1% of its total passenger numbers in 2019.

The Dutch state is the majority shareholder in Schiphol airport and is the driving force behind the decision to cap flight movements, citing the need to limit noise pollution and to operate within the existing legal framework. Alongside this cap, the government announced last year that it would triple the ticket tax from €7.95 to €28.58 per ticket, and delayed its decision on the opening of Lelystad Airport for commercial air traffic until 2024.

As a leading member of the TULIPS consortium, which brings together 29 parties in the aviation chain to accelerate the sector's sustainability, Schiphol Group has committed to its operations being zero-emissions and zero-waste by 2030, and to function as an energy-positive and fully circular organisation by 2050. They are putting a strong emphasis on the reduction of nitrogen emissions and are currently in the process of applying for a nature permit.

Nevertheless, there will be a range of economic impacts (many of which are negative) associated with this policy and this report provides a comprehensive assessment of these impacts.

¹ The International Air Transport Association (IATA) define summer and winter seasons for slot allocation at airports. These are the two times each year that slot use and allocation are addressed and adjusted. See [link](#) for further information.

² The 11 percent reduction is calculated using 2019 figures for air transport movements: $(496,826 - 440,000) / 496,826 = 0.1144$ (11.4 percent)

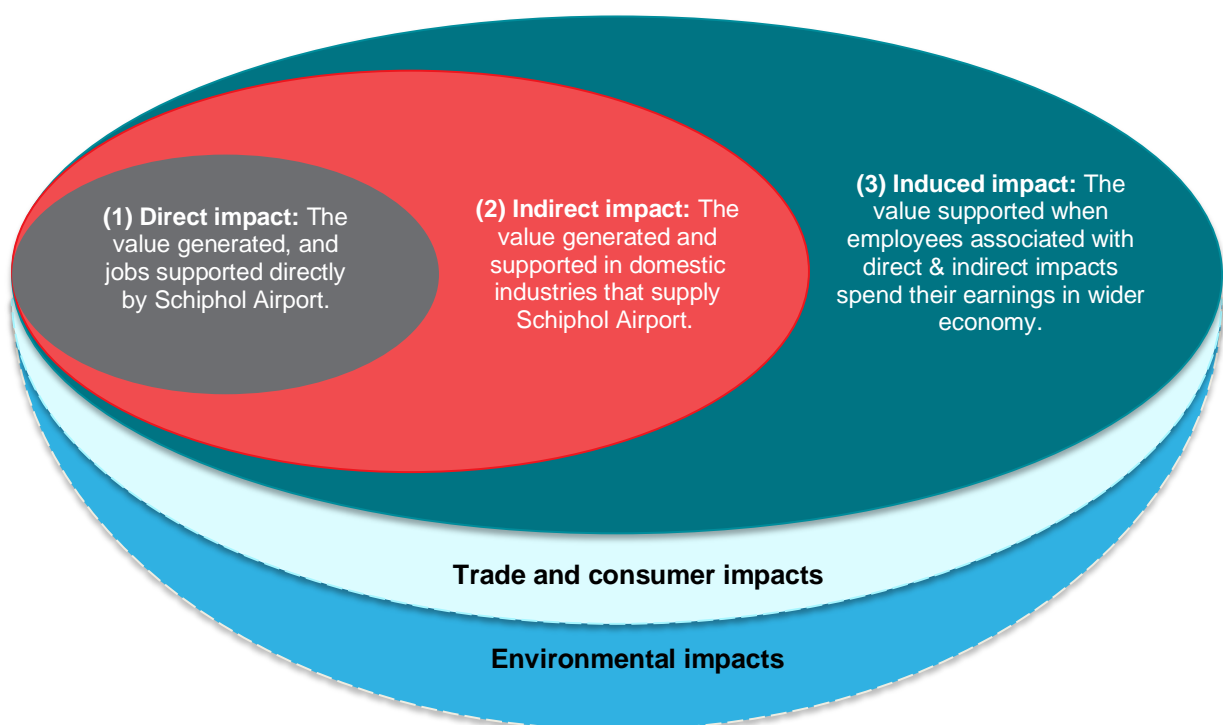
The structure of this report

Schiphol Airport fulfils a range of transport related services to its customers that correspond to different impact layers. The rest of the report follows the following structure. Firstly, we assess the direct economic impact of Schiphol's operations: analysing what it would mean for their operations to be reduced as a result of the limit on flights. Using Input-Output analysis, we then estimate the associated reduction in economic activity supported by the Schiphol Airport's activities, via indirect and induced impacts. We consider the impacts both at the national level and also for the region of Noord-Holland.

Secondly, we go on to analyse trade and passenger data to better understand the impacts of the flight restriction on the businesses and consumers who rely on and use Schiphol Airport. The causality of the flight restriction differs across each of these impact layers, and as such they should be thought of as distinct types of impact. For example, whilst it is simple to infer that the restriction will have a direct impact on Schiphol Airport's turnover, the line of causality is less clear when it comes to a reduction in the value of cargo passing through the airport. Figure 1 below sets out the different types of impact.

Finally, we estimate the monetised impacts of reduced emissions.

Figure 1: Visualisation of economic and environmental impact layers.



2 Module 1: Economic impact modelling

Direct economic impacts

Schiphol Airport directly creates substantial economic activity on and around the site. A reduction in flight capacity at the airport will have a direct impact on the jobs and the economic value generated by Schiphol Airport. In this module we compare the difference between two scenarios: the economic footprint of Schiphol Airport in a scenario without reduced flight activity and one with reduced activity. The difference between the two provides an estimate of the impact of the Dutch government's decision to limit flight movements at Schiphol Airport.

We use 2019 as the baseline scenario throughout this analysis, since the data in the years following is affected by the pandemic. **Based on the information collected from Schiphol's Annual Reports, our analysis suggests that the proposed 11% reduction in flight activity will result in a direct impact on Schiphol Airport's turnover of €164 million per year compared to the baseline.**

Schiphol Airport also directly contributes to national gross value added (GVA) through its operations. **We estimate that the direct impact of the decision to limit its activity will be a reduction in €94.9 million in Schiphol's contributions to GVA, compared to those in 2019.**

More than 2240 full-time equivalent (FTE) jobs were directly supported by Schiphol Airport in the baseline scenario, according to Cebr estimations. This is associated with employee compensation worth €216 million. **An 11% reduction in flight activity would hence imply FTE employment to reduce by 257 at Schiphol Airport, representing a €24.7 million fall in employee compensation.**

Figure 1 – Direct impact of reduced flight activity at Schiphol Airport.

Falls in associated economic activity at Schiphol Airport	
Turnover	€ 164,494,317
GVA	€ 94,869,120
Employee compensation	€ 24,701,134
Employment	257

Aggregate economic impacts

The economic footprint of Schiphol Airport in the Netherlands and Europe is not confined to its direct contributions. It is also important to consider the knock-on effects on the wider economy of the decision to restrict flight movements. These effects can be broken down into different impact layers, namely indirect and induced impacts.

Indirect impacts refer to any activity supported through the supply chains that feed into Schiphol Airport's day-to-day operations – that is, the goods and services purchased by Schiphol Airport from domestic suppliers. In contrast, induced impacts refer to economic activity supported when direct and indirect (supply chain) employees spend their, now reduced, earnings on goods and services in the wider economy, thus facilitating less associated economic activity.

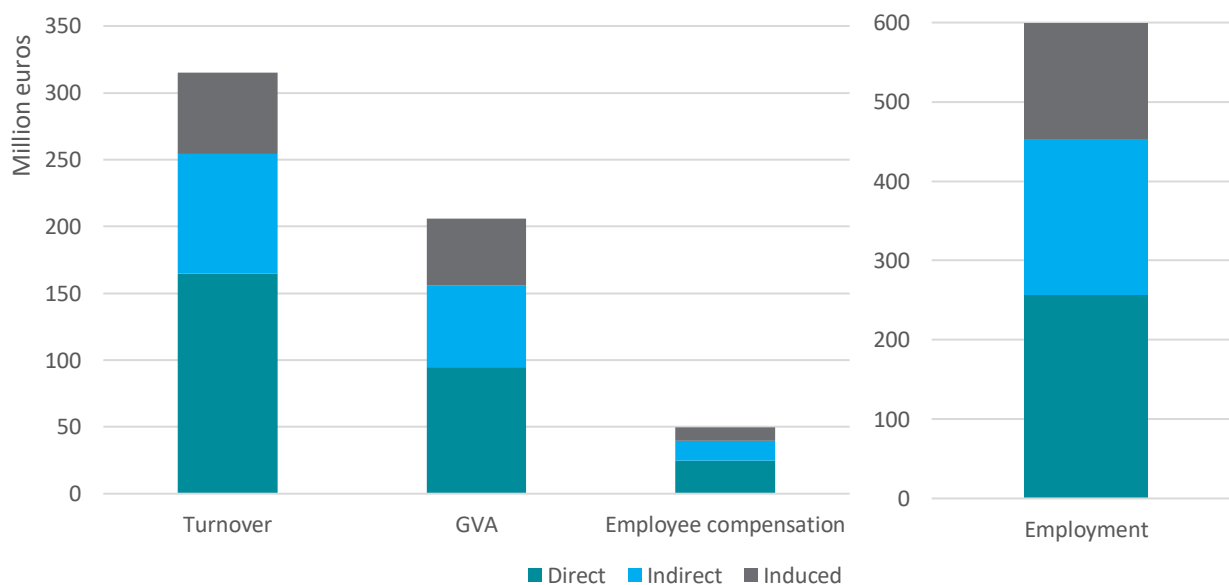
To calculate these impacts, we establish the role of Schiphol Airport within the input-output models before estimating its economic contributions. From here, we calculate economic multipliers, which applied to the direct impacts presented above, provide estimates of the aggregate ongoing economic contributions made by Schiphol.

Our model shows that the 11% reduction in flight activity at Schiphol would reduce the turnover supported through the supply chain and induced wage expenditure in the Netherlands by €150 million, compared to the baseline scenario. Adding this to the direct impact on Schiphol Airport gives a total reduction in turnover facilitated of €315 million.

Moreover, our economic multipliers show that for every €1 that Schiphol Airport contributes to the Netherlands' GVA, it supports an additional €1.17 elsewhere in the economy. **Hence, ceteris paribus, a reduction of €94.9 million in its direct GVA contributions as a result of the flight restriction, would also reduce the national GVA supported by €111 million through indirect and induced impacts. Combined with the direct impacts, this implies a total impact on GVA supported of €205 million, compared to the 2019 baseline.**

Schiphol Airport is estimated to support 1.34 FTE jobs throughout the rest of the Dutch economy, for each job directly created by its own operations. We estimate that the reduction in Schiphol's activities is associated with 343 FTE fewer jobs supported via indirect and induced effects. **In total this means 599 fewer jobs will be supported in the Netherlands.** The employee compensation supported through direct, indirect, and induced impact channels that is associated with this reduction in employment, totals €49.7 million.

Figure 2: Total economic impact in reduction in activity at Schiphol Airport compared to baseline.



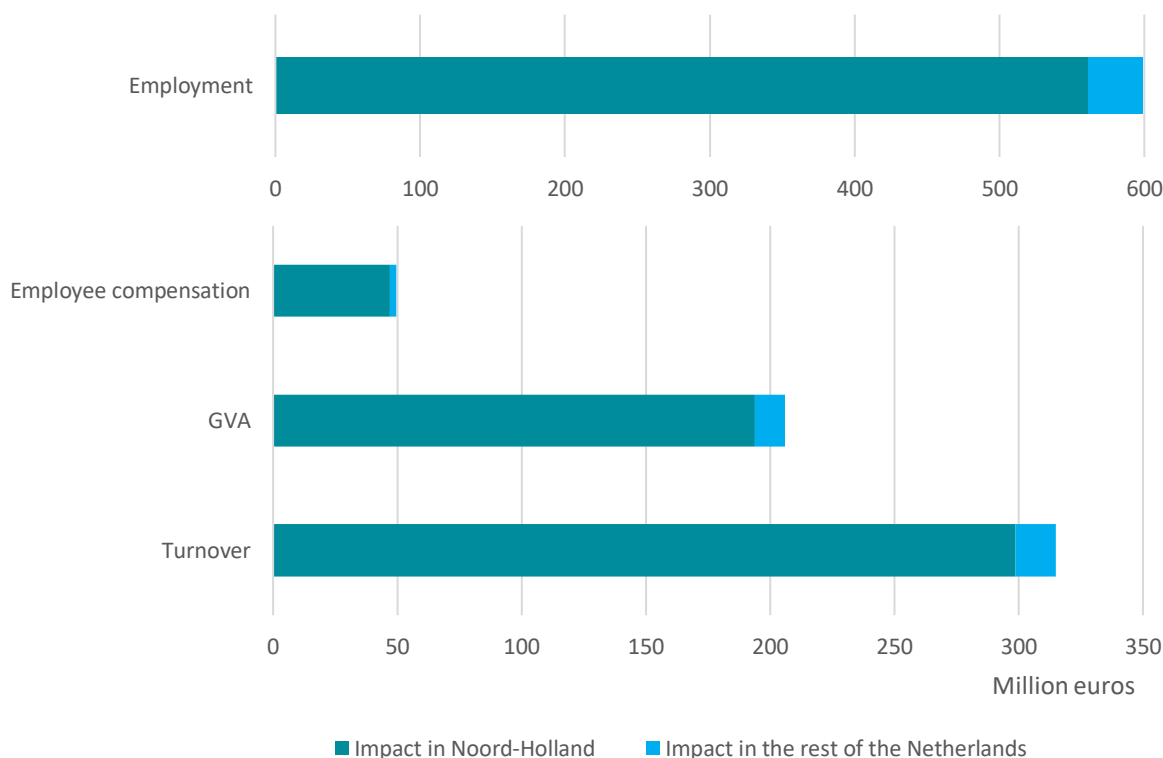
3 Module 2: Regional economic impact modelling

Another important consideration is the geographical distribution of multiplier impacts, in order to estimate the share of activity that remains in the region encompassing Schiphol Airport. This process involves adjusting the national multipliers to account for differences in the structure of the economy in different regions of the Netherlands, hence providing more bespoke estimates.

Cebr have produced bespoke regional multipliers to capture the economy activity supported by Schiphol Airport in the Noord-Holland province. These therefore take into consideration the differences in Noord-Holland's economy compared to the rest of the country.

Given that Noord-Holland receives the direct economic benefit of having Schiphol Airport located within its boundaries, we find that the majority of the national impact presented in the previous section accrues within this region. Figure 3 shows the breakdown of the total impact (direct, indirect, and induced) of the flight restriction between Noord-Holland and the rest of the country. It is clear from the impacts are highly concentrated within the region – particularly in terms of turnover and GVA, whereby Noord-Holland experiences 95% and 94% of the aggregate economic impact respectively.

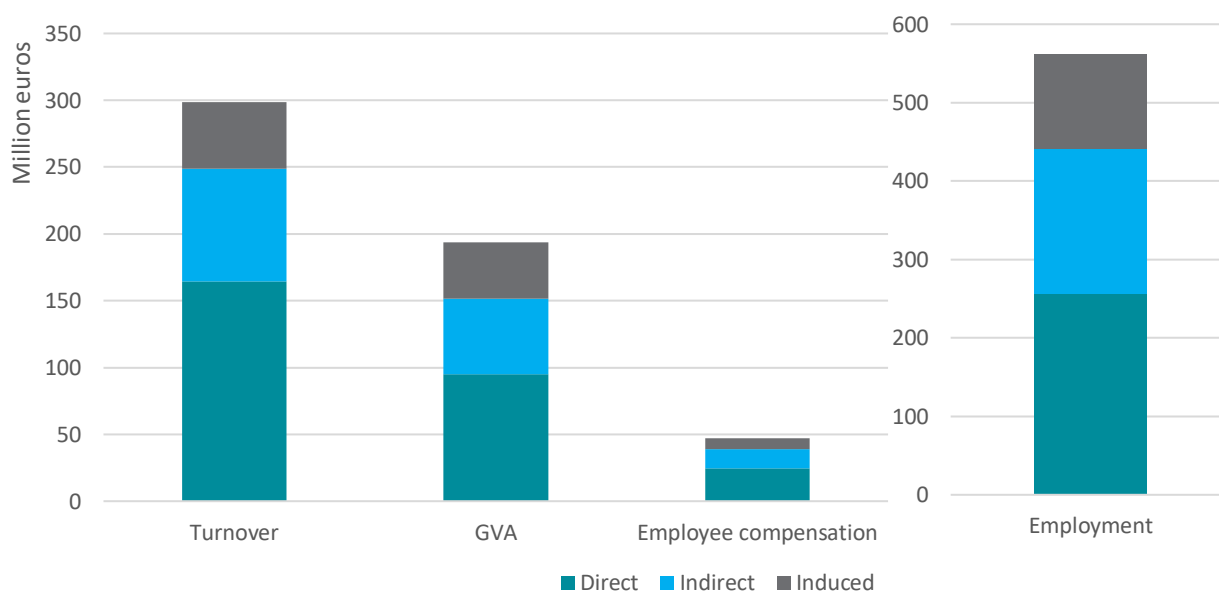
Figure 3: Reduction in aggregate economic activity in Noord-Holland vs rest of the Netherlands.



We find that for every €1 of turnover generated directly by Schiphol Airport's operations, a further €0.82 of turnover is supported in Noord-Holland through the supply chain and induced wage spending. **With this regional multiplier, the flight restriction imposed on Schiphol would reduce turnover supported in Noord-Holland by €134 million per year, compared to 2019.** €84.2 million (62.6%) of this is through indirect supply chain impacts, and the remainder through induced wage spending.

Similarly, our estimates show that Schiphol's activity supports €1.04 worth of GVA in Noord-Holland for every €1 of GVA it generates directly. **Hence the flight restriction is associated with a decrease in regional GVA supported by Schiphol by €99.1 million annually, when compared to that in 2019.**

Figure 4: Reduction of economic activity supported by Schiphol airport in Noord-Holland resulting from flight limit.



The Noord-Holland region also benefits from the jobs supported by Schiphol Airport. Our multipliers show that for every person employed by Schiphol directly, another 1.19 FTE jobs are supported in Noord-Holland through the supply chain and induced wage spending. **Thus, a reduction in Schiphol's activity is associated with 305 FTE jobs supported by their business in the Noord-Holland region, corresponding to employee compensation of €22.2 million.**

4 Module 3: Trade and consumer impacts

Trade impacts

In this module we first provide some background on Dutch trade, before quantifying the impact of the flight limit on air cargo at Schiphol airport, and then consider what this might mean for the country's trade more generally. Reduced activity at Schiphol airport will have adverse impacts on Dutch trade that relies on air transport due to its speed and extensive connectivity. As passenger numbers have declined due to restrictions, there is an associated reduction in cargo transported given the lower number of associated flights.

The Netherlands was the world's fifth-largest exporting country in 2020, behind only China, Germany, the US, and Japan. With an expanding share of global trade in recent years, they have seemingly counteracted the global trend of slowing growth in international trade. One reason for this is its mix of trading partners; Dutch trade is concentrated in markets with above-average growth.

The Netherlands' export markets are fairly concentrated, with their top five export partners together accounting for nearly 53% of total goods exports. Germany is consistently the largest importer of Dutch goods by value, followed by Belgium and France.

A significant proportion of goods that enter the Netherlands leave the country again, since they are either cargo in-transit or destined for re-export.³ The share of inbound cargo that is consumed domestically varies widely across transportation modes: just a third (32.7%) of goods delivered by air remain in the Netherlands. Meanwhile, the majority of goods delivered via pipeline and inland waterway are for domestic consumption.

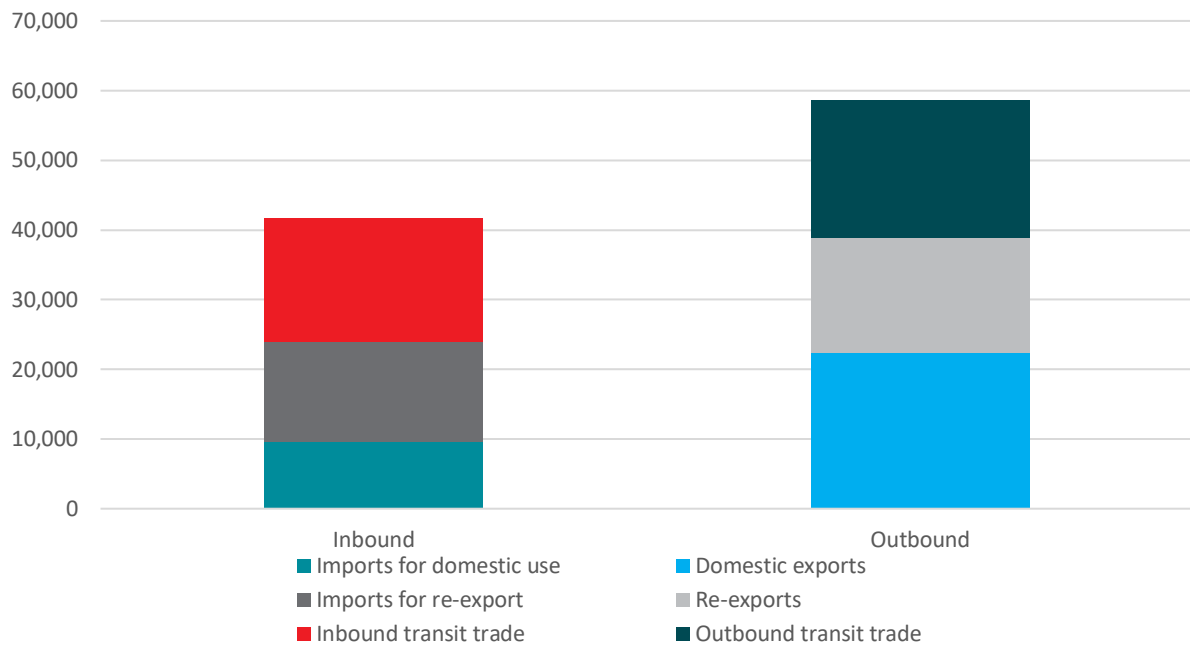
For outbound trade, one third (33.2%) of total cargo volume was domestically produced. For goods transported by air, the proportion produced domestically sits in line with the average, with 33% of produced domestically. In contrast, for goods transported via road or sea, the proportion of Dutch-produced goods was higher (40%). Within this context, a decline in air cargo resulting from the flight restriction will have a more significant impact on transit and re-export markets than on domestically produced trade.

Almost all (93.4%) of the air cargo that was transported into the Netherlands in 2019 went via Schiphol airport, with the remainder transported via Maastricht. **Schiphol airport handled 1.57 million tonnes of cargo in 2019, representing €100 billion in goods.**⁴ Despite an even split between inbound and outbound cargo in terms of volumes (50.4% and 49.6% respectively), the value was concentrated in outbound cargo, representing 58.4% of the total value in 2019.

³ Goods in transit remain in foreign ownership, they are merely transhipped from one transport mode to another or stored temporarily within the Netherlands. Re-exports are goods which are temporarily in Dutch ownership before being exported again. Re-exports form a constituent part of imports and exports, whilst goods in transit do not.

⁴ Monetised values are Cebr estimations based on CBS data on value of inbound and outbound cargo to the Netherlands.

Figure 5: Value of Schiphol's air cargo by trade flow, 2019 (million euros).



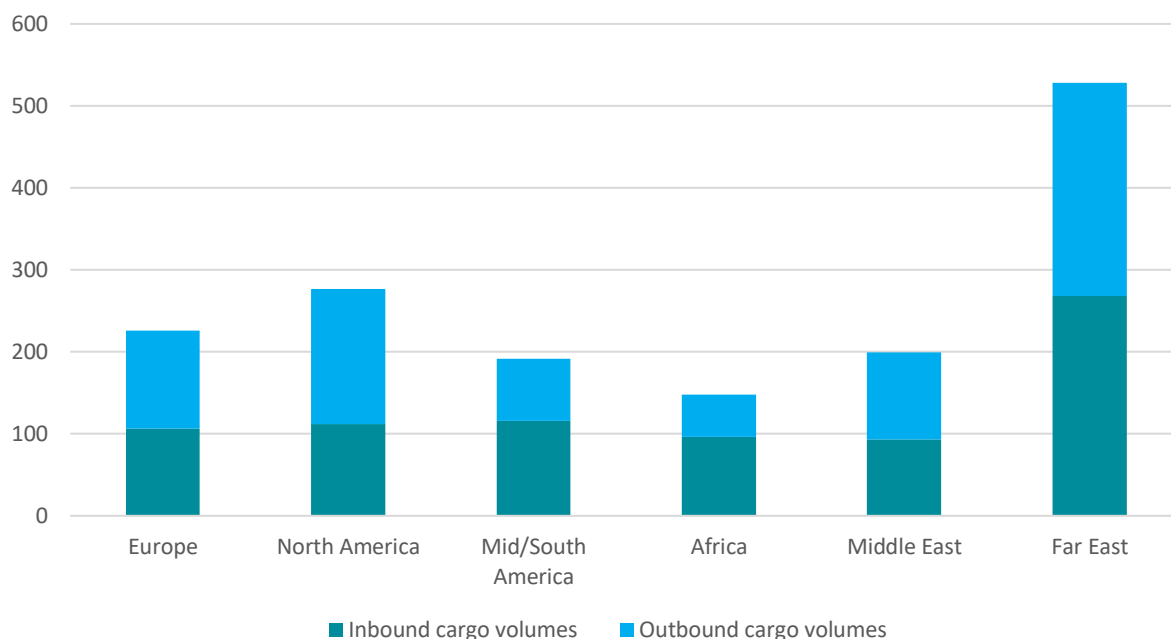
We estimate that cargo handled by Schiphol is worth almost 41 times the country's average cargo, at almost €63,900 per tonne compared to the average €1,600 in 2019. Although Schiphol's cargo represented just 0.13% of total Dutch trade by volume in 2019, by value it was worth 5.34% of the total.⁵

2019	€ per tonne
Air cargo via Schiphol	63,855
Average Dutch cargo, all transport modes	1,569

Both inbound and outbound cargo transported through Schiphol is heavily concentrated within the Far East market, at 528,000 tonnes in 2019. North America and Europe are also important trade routes, driven predominantly by high volumes of outbound cargo from the Netherlands. A sizeable proportion (45.9%) of Schiphol's air cargo was transported as bellyhold on passenger flights in 2019.

⁵ These figures are Cebr estimated based on CBS data and data from Schiphol's annual reports, calculated by dividing the value of cargo per mode of transport by the respective cargo volume measured in tonnes. The portion attributed to Schiphol airport is based on cargo figures from their annual reports, the value of which has then been estimated based on the value of air-transported cargo. All data is from 2019 and all prices are expressed in 2023 terms.

Figure 6: Trade routes of inbound and outbound cargo through Schiphol Airport, 2019 (thousand tonnes).



The upcoming restriction of 440,000 flights per year will lead to **an estimated reduction in cargo through Schiphol of 180,000 tonnes compared to 2019 levels**. Scaling this by the average value per tonne of cargo transported through Schiphol, **we estimate that this represents €11.5 billion worth of goods**.⁶ For context, this approximately equals the total value of Dutch exports of flowers and plants in 2019, which was €11.6 billion.⁷

However, these figures are based on the assumption of a uniform reduction across all passenger and full freight services. If, instead, full freight slots are cut by 30%, as has been indicated as a worst-case scenario by Air Cargo Netherlands, the impact on cargo volumes will be far more pronounced.⁸ Cebr estimates that **this would result in a drop of 333,000 tonnes of cargo transported compared to 2019 levels, representing €21.3 billion worth of goods. This would be a reduction of 21.2% of Schiphol's 2019 cargo volume.**

Consumer impacts

Reduced passenger numbers compared to 2019 mean that there are fewer consumers coming in from abroad who spend money on Dutch output. In this section, we estimate the associated impacts related to reduced tourism spend in the wider economy.

⁶ The estimation assumes that the value per tonne of cargo remains constant from its 2019 level.

⁷ Table 3.3.6: Main product groups, exports. [Link](#).

⁸ The Loadstar report, 26 October 2022: *Dutch air cargo shippers welcome Schiphol tie up with Maastricht Airport*. [Link](#).

Schiphol is the third-busiest airport in Europe in terms of passenger numbers and held the number one position for direct connectivity among European airports in 2022.⁹ Around 88% of all passengers flying into or out of the Netherlands did so through Schiphol between 2019 and 2022.

In 2019, Schiphol airport transported 71.7 million passengers, 70.5% of which were on flights to or from Europe. Of intercontinental flights, North America and Asia comprised the biggest markets, accounting for 10.6% and 6.6% of passengers respectively.

Airport capacity shortages have various negative impacts on the consumer. Supply and demand theory tells us that where there is insufficient supply to meet demand, prices must increase to choke off the excess demand. Capacity shortages are also likely to have other important costs to the consumer, such as delay costs and reduced connectivity due to fewer directly served destinations. There are also likely to be higher ticket prices, which is considered below.

Increased ticket prices

The decision to restrict capacity at Schiphol Airport will create a situation of scarcity for airlines, where passenger demand exceeds the level that they are able to supply. In this situation, supply and demand are likely to be balanced by airlines in the form of higher fare prices. This mark-up on fares due to capacity constraints is referred to as a 'fare premium' or 'scarcity rent'. There is extensive literature showing a significant positive relationship between airport congestion and average air fares.¹⁰ In one study¹¹ of the impact of airport capacity constraints on air fares in Europe, researchers find that a 10% higher airport capacity constraint level is associated with a 1.4%-2.2% higher average air fare. They calculate that capacity shortages at European airports resulted in €2.1 billion in fare premiums for passengers in 2014, representing an average of €5.65 per return passenger at airports with a congestion level higher than the benchmark. By 2035, this is expected to increase to €10.42 per return passenger.

In another study, looking into the fare premium resulting from constrained capacity at London Heathrow, Frontier Economics estimate a premium of around 17% of fares for short haul and 25% of fares for long haul, with this being consistent across various methodological approaches.¹²

Moreover, the existence of a fare premium at constrained airports means that flight seats are allocated to those able to pay the most. There is evidence that the share of premium (business and first class) seats is higher at congested airports compared to non-congested airports, as

9 ACI Airport Industry Connectivity Report 2022. [Link](#). Direct connectivity refers to the direct services available from the airport; measured not just in terms of destinations but also accounting for the frequency of flights to the same destination.

10 See the two studies referenced below, plus [Van Dender \(2007\)](#), [Evans and Kessides \(1993\)](#), among others.

11 SEO Amsterdam Economics: The impact of airport capacity constraints on air fares, 2017. [Link](#).

12 Frontier Economics: Estimating the congestion premium at Heathrow, 2019. [Link](#).

well as a lower presence of low-cost carriers on average.¹³ Not only does this crowd out consumers who are unable to afford premium ticket prices, but it may also have detrimental impacts on the environment. Premium class seats take up a larger footprint compared to economy seats and result in fewer passengers per flight. In 2020, the International Council on Clean Transportation estimated CO2 emissions per passenger kilometre for premium passengers to be 2.6 times those of economy passengers.¹⁴

Reduced Tourist Expenditure

In 2019, the Netherlands welcomed 20.1 million tourists, spending just over €40.0 billion in the Dutch economy during their stay. Most non-resident tourists (79.7%) came from Europe. 30.7% of all international tourists to the Netherlands in 2019 were from Germany, followed by those from Belgium (12.5%) and the UK (11.9%). For those outside of Europe, travellers from the US were the largest group, making up 7.8% of international tourists.

As expected, international tourism in the Netherlands was strongly hit by the pandemic, with visitor numbers down to 7.3 million in 2020, a 64% drop on 2019 levels. Despite this, the Netherlands Board of Tourism and Conventions (NBTC) expects to see a recovery of inbound tourism this year to 90% of 2019 levels.

Data on the proportion of international tourists who travel to the Netherlands through Schiphol airport is limited, and thus the following figures are Cebr estimates based on Statistics Netherlands (CBS) data. In 2019, an estimated 11.0 million international tourists flew into the Netherlands via Schiphol, each with an average spend of €1,725 in the Dutch economy during their stay. **The reduction in passenger volumes as a result of a flight restriction would result in 1.3 million fewer tourists using Schiphol airport each year compared to 2019, representing a drop in total tourist expenditure by €2.2 billion per year.**¹⁵ To contextualise, this is almost the total number of Asian tourists who visited the Netherlands in 2019 was 1.5 million.

13 SEO Amsterdam Economics: The impact of airport capacity constraints on air fares, 2017. [Link](#).

14 ICCT: CO2 emissions from commercial aviation, 2020. [Link](#).

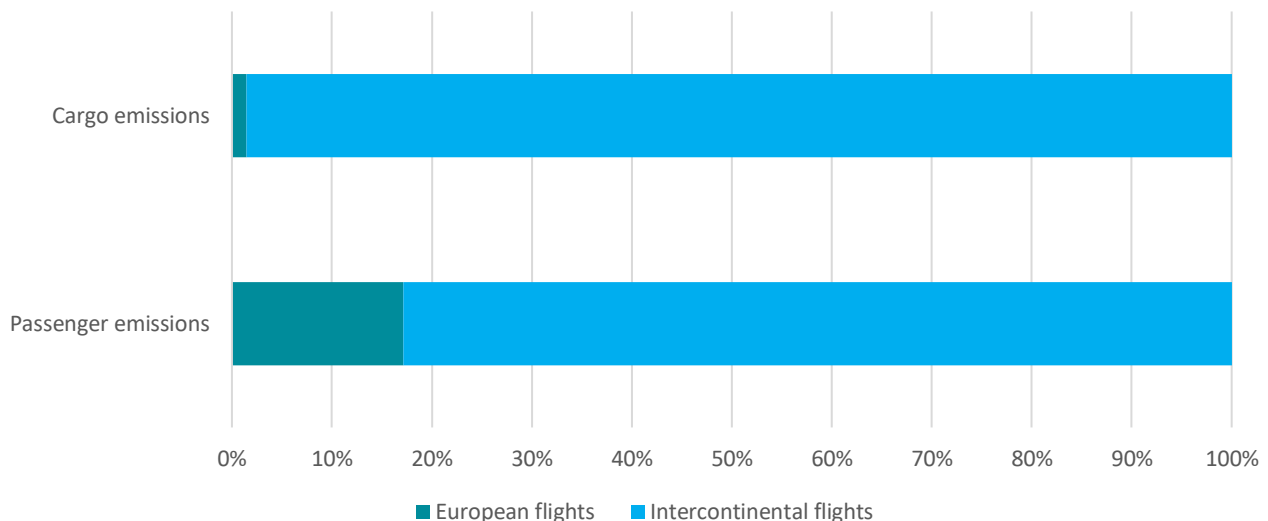
15 This estimation assumes that average passenger spend remains constant from 2019.

5 Module 4: Emissions impacts

This module assesses the extent to which the limit on passenger numbers will serve to reduce CO₂e emissions at Schiphol, taking the 2019 peak in air traffic as the baseline. **Cebr analysis indicates that air transport movements at Schiphol airport in 2019 resulted in 59.9 megatonnes of CO₂e**, of which 60.6% was attributable to passengers and 39.4% attributable to cargo. These are estimates based on 2022 UK government Greenhouse Gas Conversion Factors for air transport and freighting goods.¹⁶

CO₂e emissions come predominantly from intercontinental flights, given their longer distance. Schiphol Airport's intercontinental flights made up 82.9% of total passenger flight emissions in 2019. Similarly, emissions from cargo flights result disproportionately from intercontinental flights.

Figure 7: Proportion of passenger and cargo flight emission from European vs Intercontinental flights, 2019.



We have estimated the reduction in CO₂e emissions resulting from the restriction of flights at Schiphol Airport.¹⁷ Since the limit on the number of flights from Schiphol will likely lead to passengers substituting air travel for other transport modes, we have incorporated the effect of this modal shift into our analysis.

¹⁶ UK government Greenhouse Gas reporting: conversion factors 2022. [Link](#). The same data is not made available by the Dutch government or the EU, but we believe that the UK values will be roughly consistent with those for the Netherlands.

¹⁷ This estimation is based on the assumption that the ratio of passenger services to full freight services remains the same with reduced activity as it was in 2019, and that the origin and destination airports of Schiphol's air traffic remains in line with its 2019 pattern.

The large proportion of Schiphol's passengers travelling to and from Europe lends itself well to the possibility of substituting short-haul flights for high-speed rail. Both Schiphol Group and the Dutch government have recognised the need to develop Schiphol airport into a multimodal hub, in order to reduce its environmental and noise footprint. The air-rail pilot scheme, run last year by Dutch flight carrier KLM and train operator Thalys, demonstrated the potential for replacing short-haul flights with high-speed rail, but also highlighted the need to streamline the passenger experience before it will provide a viable alternative for travellers.¹⁸

Using average diversion factors for air transport, we have calculated the likelihood of passengers substituting a flight from Schiphol to a coach, car, or train journey, based on the distance of their trip.¹⁹ From here we applied the UK government's greenhouse gas conversion factors for each of the modes of land transport, to obtain an estimate for the emissions that would occur in place of Schiphol's usual level of air traffic. Our calculations show that a modal shift by passengers would result in 245 kilotonnes of CO₂e being generated by other forms of travel.

In the same way, it is likely that a proportion of the air cargo usually transported through Schiphol would instead be transported via road, sea, or rail, as a result of the flight limit. After estimating this proportion, we find that the modal shift resulting from reduced air cargo will generate an additional 27 kilotonnes of CO₂e through other modes of transport.

Taken together, the emissions created by the substitution of transport modes by both passengers and cargo are relatively small, accounting for just 273 kilotonnes of CO₂e. This represents less than 0.5% of the 2019 passenger and cargo emissions from Schiphol. This is due both to the fact that the substitutable journeys are those which are the shortest, and hence create the least emissions, and the fact that other modes of transport are significantly less polluting than air travel. For example, transporting cargo on a long-haul flight creates around 22 times the emissions per tonne kilometre as does transporting cargo by road.

After factoring in the emissions created by a substitution effect, we estimate that passenger and cargo emissions will stand at 53.3 megatonnes per year. This represents a decrease of 6.58 megatonnes of CO₂e, compared to the 2019 baseline.

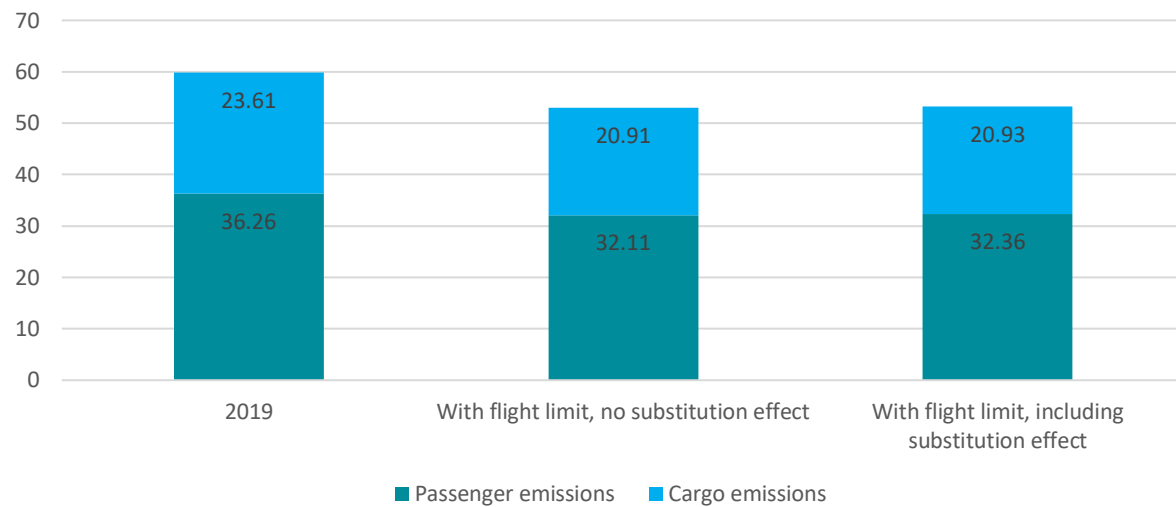
The UK government publishes greenhouse gas emissions values ("carbon values") for appraising the impacts on emissions resulting from policy interventions. They represent a monetary value that society places on one tonnes of carbon dioxide equivalent. **Applying these carbon values to our figures, the value of the above reduction in CO₂e is €1.79 billion.**²⁰

¹⁸ KLM press release, 18 July 2022. [Link](#).

¹⁹ Diversion factors ([link](#)) quantify the impact of changes on one mode of transport on the demand for other modes of transport. In transport appraisal they are used to determine the source and extent of new traffic resulting from an investment.

²⁰ UK Department for Transport TAG data book. [Link](#). Carbon values are not made available by the Dutch government or the EU, so we have used the UK government's values as proxy.

Figure 8: CO₂e emissions associated with Schiphol airport passenger and cargo air transport movements, megatonnes.



However, it is important to note that our estimates do not account for a substitution of air traffic to other international airports. This would perhaps increase the total emissions related to their journey, since it could involve further travel to another airport. For example, direct train lines between Amsterdam and other international airports such as Dusseldorf and Brussels make these viable alternatives for passengers who are unable to fly direct to or from Schiphol.

Moreover, airlines have already shown that they are willing and able to transfer flights to other nearby airports, as was the case in summer 2022, when staff shortages led to severe flight disruptions at Schiphol. Airlines Corendon and Air Malta both moved flights to Rotterdam, due to its proximity to Amsterdam, whilst Transavia moved flights to Brussels, Eindhoven, and Rotterdam. This suggests that a flight restriction at Schiphol Airport may require smaller airports to increase their capacities, thereby dampening the environmental benefits of the decision; and also limiting the associated economic costs.

6 Conclusion

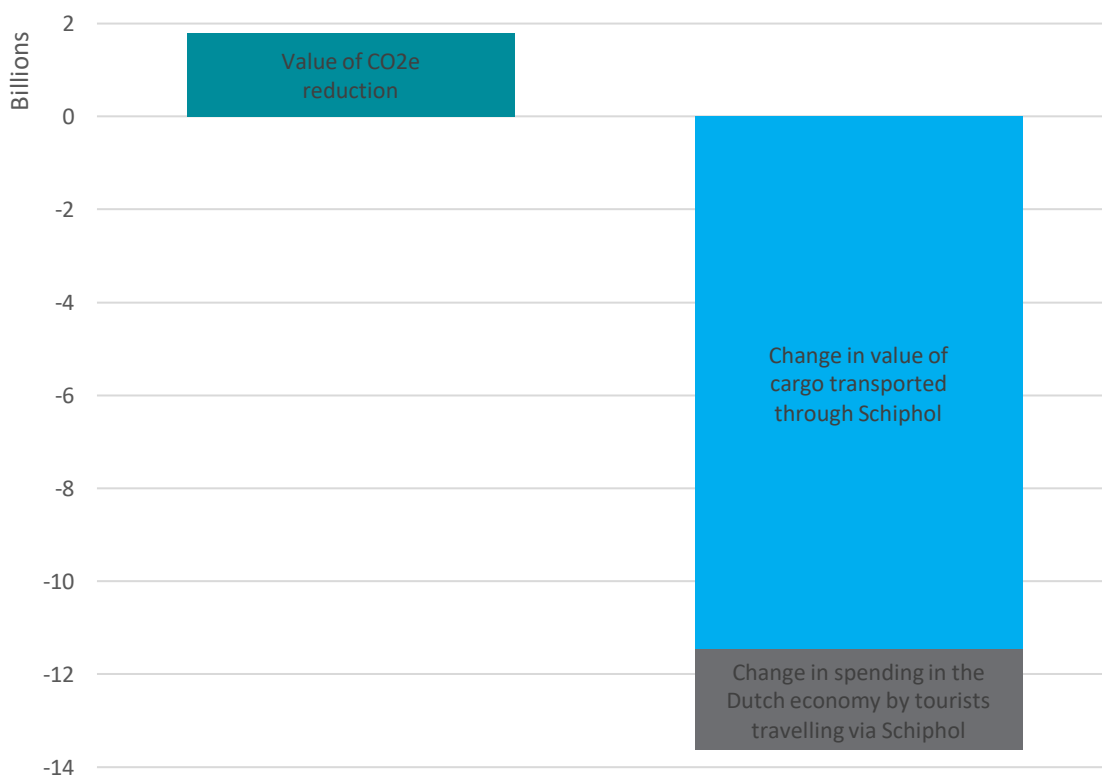
This report has assessed the economic impacts of the government's decision to limit the number of air movements at Schiphol Airport to 440,000 per year. The message deriving from the analysis is that the decision will impact not only Schiphol's direct business operations but also the wider Dutch economy, in terms of trade and consumers. The analysis shows that whilst the monetised value of the reduction in CO₂e emissions is significant, it does not account for the increased CO₂e from flights that are redirected to other large airports, such as London Heathrow and Paris Charles de Gaulle.

The impacts to Schiphol Airport and the wider Dutch economy, through Schiphol's supply chain and induced wage expenditure, represent a reduction of €315 million in supported turnover and €205 million in GVA supported by Schiphol Airport. Moreover, 599 FTE fewer jobs will be supported by Schiphol Airport following the flight limit, representing €49.7 million in employee compensation. These impacts are concentrated in the Noord-Holland region, where Schiphol Airport is situated.

Outside of these impacts, the decision to limit flights at Schiphol Airport will have important implications for the trade and passengers that rely on its connectivity. We estimate that there will be 180,000 tonnes of air freight that will no longer through Schiphol following the flight cut, worth €11.5 billion. Additionally, the airport will transport 1.3 million fewer inbound tourists to the Netherlands compared to 2019 according to our estimates. This is associated with €2.2 billion less in non-resident tourist expenditure. Together, these sum to €13.6 billion in trade and tourism impacts. We also consider the qualitative effects of the flight limit on passenger ticket prices, airport delays, and reduced connectivity.

Figure 9 below summarises the estimated impacts associated with the '440 decision'.

Figure 9: Value of relative estimated impacts on emissions vs on trade and consumers.



We have also assessed the likely extent to which the flight limit will justify the environmental grounds of the decision. Our analysis shows that, compared to peak air transport movements in 2019, the limit will reduce annual CO₂e emissions by 6.58 megatonnes. Using the UK government's values for carbon, the value of this emissions reduction amounts to €1.79 billion. This analysis accounts for a substitution of passenger journeys where other modes of transport are possible, for example for short-haul journeys across Europe where road or rail transport is available. However, since a large proportion of Schiphol Airport's carbon emissions result from long-haul flights, which cannot be easily substituted for other transport modes, it is likely that the environmental benefits will not be fully realised if flights are redirected to other international airports. Likewise, many of the economic costs to the Netherlands would be limited if flights are redirected to other Dutch airports.

