



Ministry of Infrastructure
and Water Management

Non-stop flying

About the preference among air
travellers for direct connections

Netherlands Institute for Transport Policy Analysis | KiM
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Summary

People who travel to and from the Netherlands by air show a clear preference for travelling without transfers. An alternative for such a direct flight is not necessarily an indirect flight, with a transfer, but could also take the form of selecting a different destination, departure from a different region or not flying at all.

The general preference in favour of direct flights does apply less to long travel distances (intercontinental). The greater the travel distance, the more common it is for travellers to make a transfer, even if non-stop connections are available. This is because on longer flights, the transfer results in relatively less loss of journey time than on shorter, continental flights. The lack of alternatives for air travel, fewer departure options and less competition between airlines also play a role in opting for a flight with transfer, rather than a direct flight.

Business travellers transfer during their flight more often than holidaymakers, even if direct flights are available. This is despite the fact that business travellers are often willing to pay more for a direct flight. However, these travellers are less often able to opt for a different travel date, and it is more difficult for them to fly to a different destination than it is for holidaymakers. In addition, for business travellers, the price difference between direct and indirect flights are considerably greater.

Reading guide

In this brochure, we present the most important results from our study into traveller preference for direct flights. We first consider [1] travel behaviour, and [2] the advantages and disadvantages of a flight with transfer, before looking at [3] the differences between business and non-business travellers and [4] the developments over time. We conclude with [5] implications for policy.



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Direct flights dominant

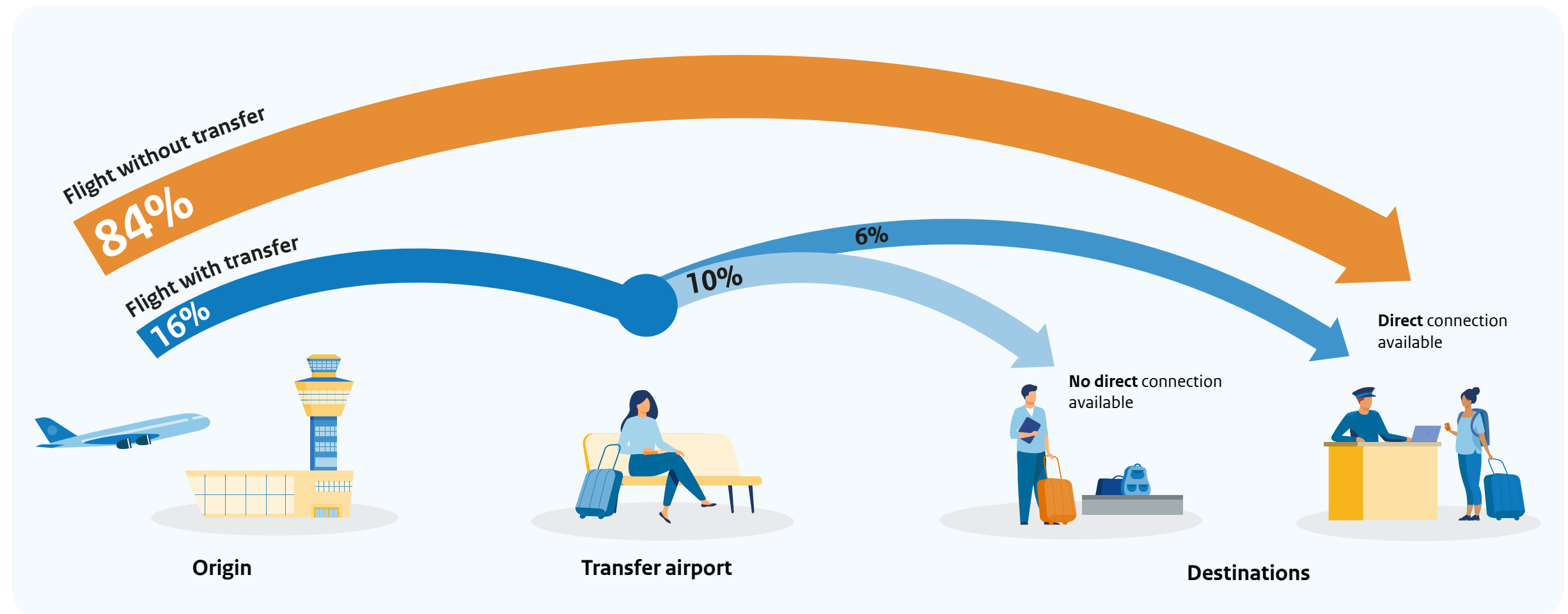
Airline passengers with the Netherlands as their destination or departure location show a clear preference for direct connection to the intended final destination. This is demonstrated by their travel behaviour and their preferences expressed in questionnaires.



6 out of all 7 flights are direct

The majority of flights from or to the Netherlands involve no transfer during the journey. Almost all passengers from regional airports such as Eindhoven Airport, travel directly to their final destination. 84% of passengers at Schiphol Airport, with their destination or point of origin in the Netherlands, do not transfer during the flight; 16% of these OD-passengers do transfer. The number of flights made with more than 1 transfer is very small. We see similar ratios elsewhere in the world.

2 out of 3 flights with a transfer - which amounts to 10% of the total number of flights departing from Schiphol Airport - end at a destination to which there is no direct connection. In the remaining cases - 6% of the total - a direct connection is available.



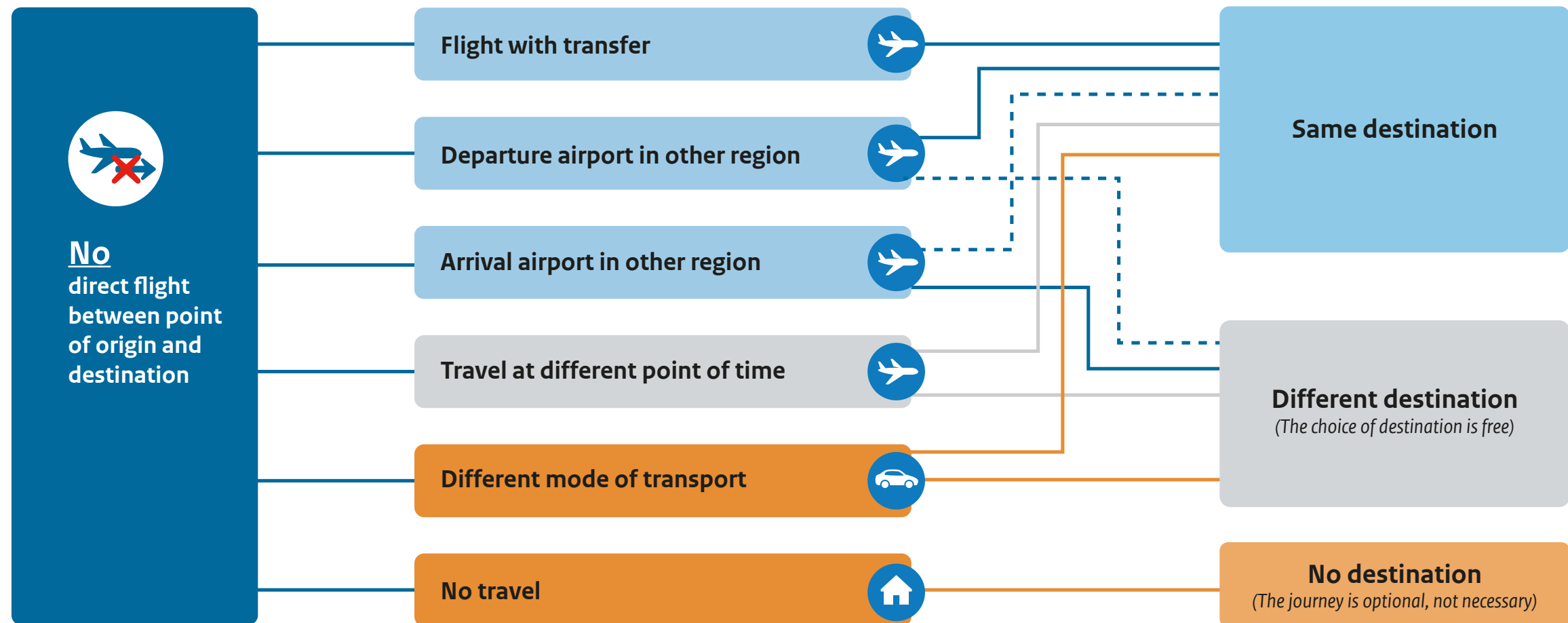


Fall in demand in the absence of direct travel options

The demand for flights depends on the quality of the offer: routes, prices, frequencies, etc. A new direct connection can generate more demand: people suddenly visit a destination they had not considered previously. The counterpart of a direct flight is therefore not necessarily the same flight with a transfer. Travellers can also opt for a different destination, another departure airport, another means of transport or even not travelling at all. It is also sometimes worthwhile to postpone the journey because the direct connection is for example only offered during the summer.

Budget airlines in particular use the mechanism of demand generation by making new destinations (temporarily) available via direct connections.

In many studies, it is incorrectly assumed that travel and the destination are both a given. Certainly for holiday travel this is not necessarily the case. Studies in which such options as not travelling, an alternative journey or a different mode of transport are explicitly investigated reveal that these fallback options are relevant: in such cases a flight with transfer becomes even less attractive.



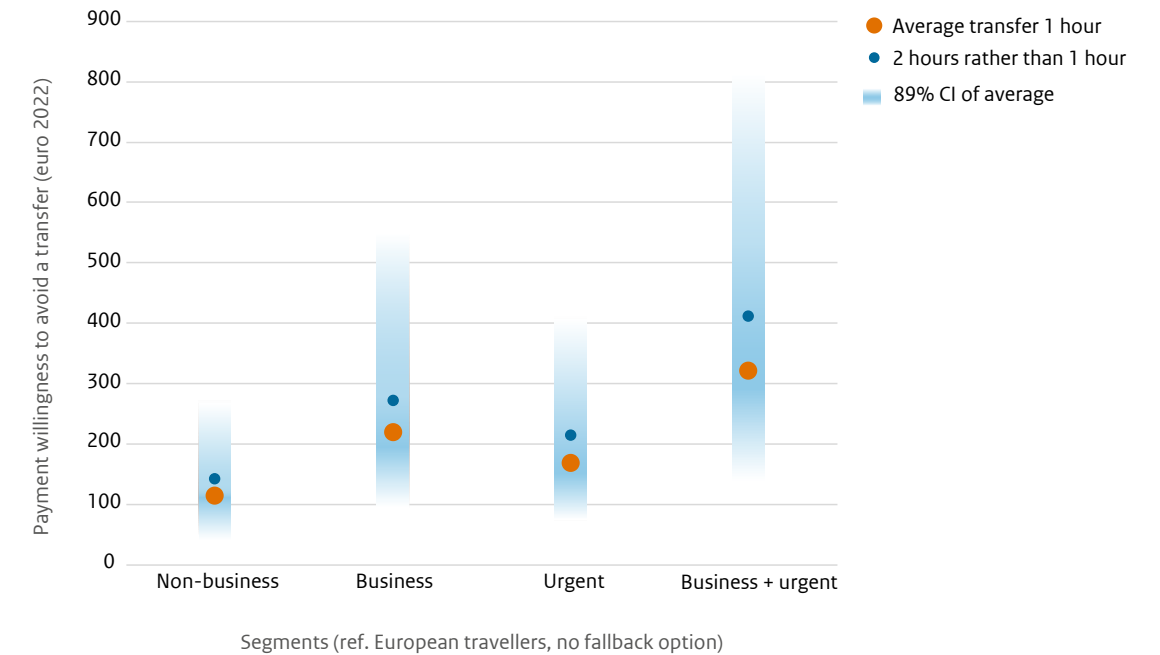


Willingness-to-pay

The aversion to a transfer during the flight is referred to as the transfer resistance. This can be quantified, for example by expressing it in monetary terms. This shows the willingness-to-pay to avoid a transfer. The average willingness-to-pay for avoiding a 1-hour transfer is estimated at 170 euros. To be able to compete, therefore, a flight involving a transfer must be substantially cheaper than the direct flight or other available travel options. Or the flight with transfer must offer other benefits.

There are considerable differences in the willingness-to-pay. This varies depending on the motive for travel, the duration of the transfer (additional waiting time on top of the 1-hour transfer time), or whether a person must travel urgently (booking window <1 week) and the extent to which the traveller has fallback options for the flight.

Willingness to pay for avoiding a transfer





2

Advantages and drawbacks of a transfer



Drawbacks of the transfer

A transfer involves certain risks. The most important risk is that the traveller misses the connecting flight, because the first aircraft is delayed. Baggage can also be delayed in arriving or be lost, and passengers themselves can lose their way at an unfamiliar airport.

Any transfer also involves a longer journey time. Not only the transfer itself takes time, but it is often extended by additional waiting time at the airport, because certainly not all flights tie up seamlessly. Moreover, a traveller with a transfer is faced with an additional landing, takeoff and taxiing. And because transfer airports are often not located on the ideal line between the departure airport and the final destination, the traveller must make a detour, in the air.

In most cases, an indirect flight has more impact on the environment and the climate than a direct flight.

Finally, the type of transfer is a determining factor in the situation regarding responsibilities and rights. If travellers book two separate tickets, they have no right to compensation if they miss their connection.

Advantages of flights with a transfer

The most important reason for accepting a flight with transfer is that there is no direct travel option to the intended final destination (while the destination is fixed). Two-thirds of flights with a transfer fall into this category, as shown in the previous section. Nevertheless, around 1 in 3 flights with a transfer are to a final destination that can also be reached directly.

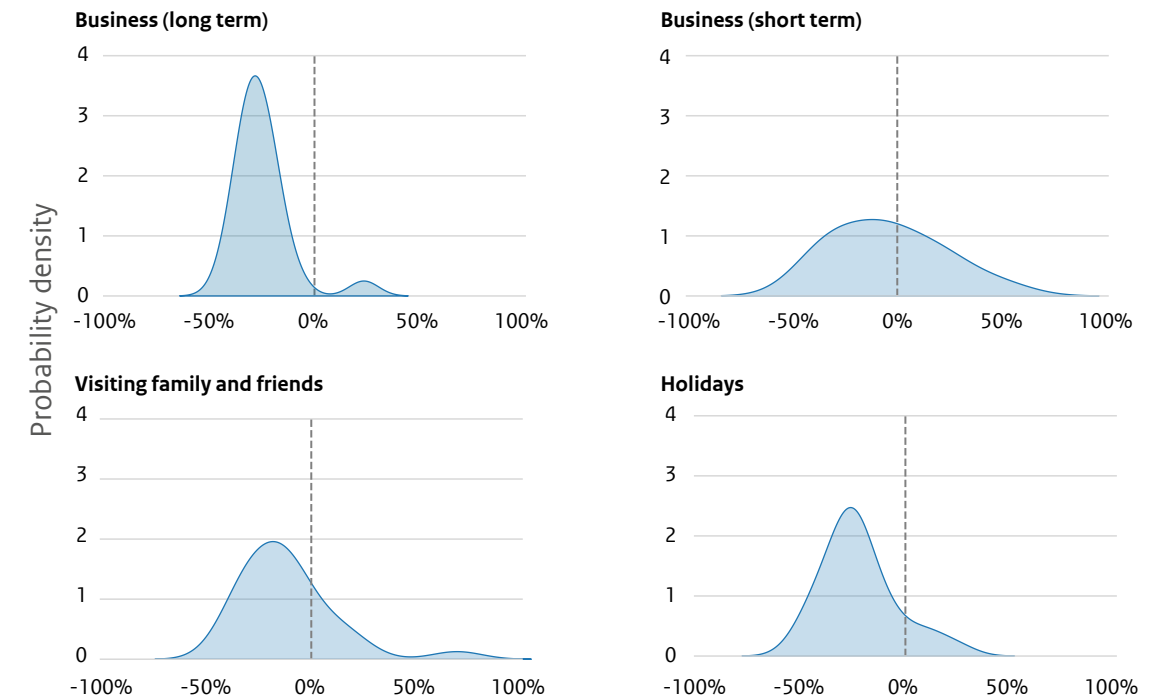
Price differences

By accepting a transfer, travellers can save on the costs of their air tickets. This is revealed in an analysis of the availability of flights to major cities (outside Europe). In this analysis, we employ four travel profiles that are differentiated according to

booking period, length of stay and travel class. We specifically compare direct flights from Schiphol Airport with indirect flights from Düsseldorf or Brussels Airport, with a transfer at Schiphol. On each occasion with the same final destination. The possible average saving amounts to around 20% .

The likelihood of finding a bargain is also greater with indirect travel options, because so many combinations are available. For every direct intercontinental flight, on average there are 3 competitive indirect alternatives (next to a large number of poor or barely competitive indirect travel options).

Price difference between direct and indirect flights





These differences are also reflected in the data about ticket purchases and actually completed journeys. Practice shows the average saving here to also be around 20% as compared with ticket prices for direct flights to the same destination, in the same travel period.

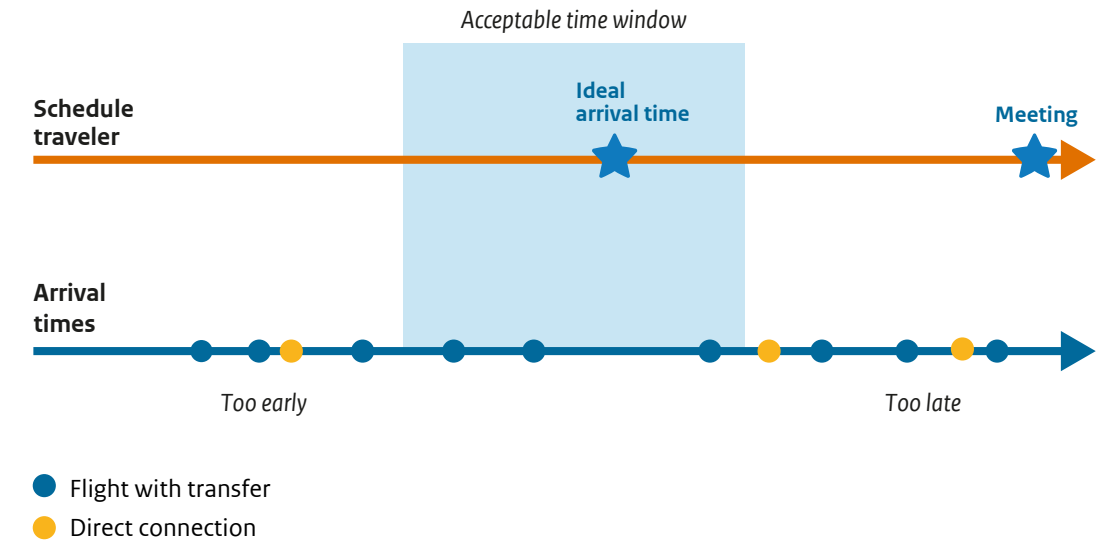
The price difference arises because - wherever possible - airlines charge people more for flights without a transfer. In this way, they make use of the previously mentioned payment willingness to avoid a transfer. In addition, airports facilitate transfers with relatively sharp prices and governments in Europe do not discourage transfer travel, because travellers who transfer at an airport do not pay airport tax at that airport.

Itinerary

Another reason why a traveller may select an indirect travel option above a direct flight is the frequency of flights. Although a journey with transfer always takes longer, it can offer benefits in terms of the moment of departure or arrival. The higher number of flights with a transfer, compared to direct options, also offers more flexibility. In particular this is relevant for people with a tight schedule or other planning restrictions. These are often business travellers.

Other reasons for selecting an indirect travel option above a direct flight relate to loyalty to a particular airline, the accrual of points for the airline loyalty programme and agreements between employers and travel agents or airlines. Finally, a transfer can also offer the traveller an opportunity to stretch their legs, or to pay a brief visit to the surroundings of the transfer airport. In practice, different aspects will play a greater or lesser role in the choices made.

More travel options, less hidden waiting time





Distance: a crucial factor

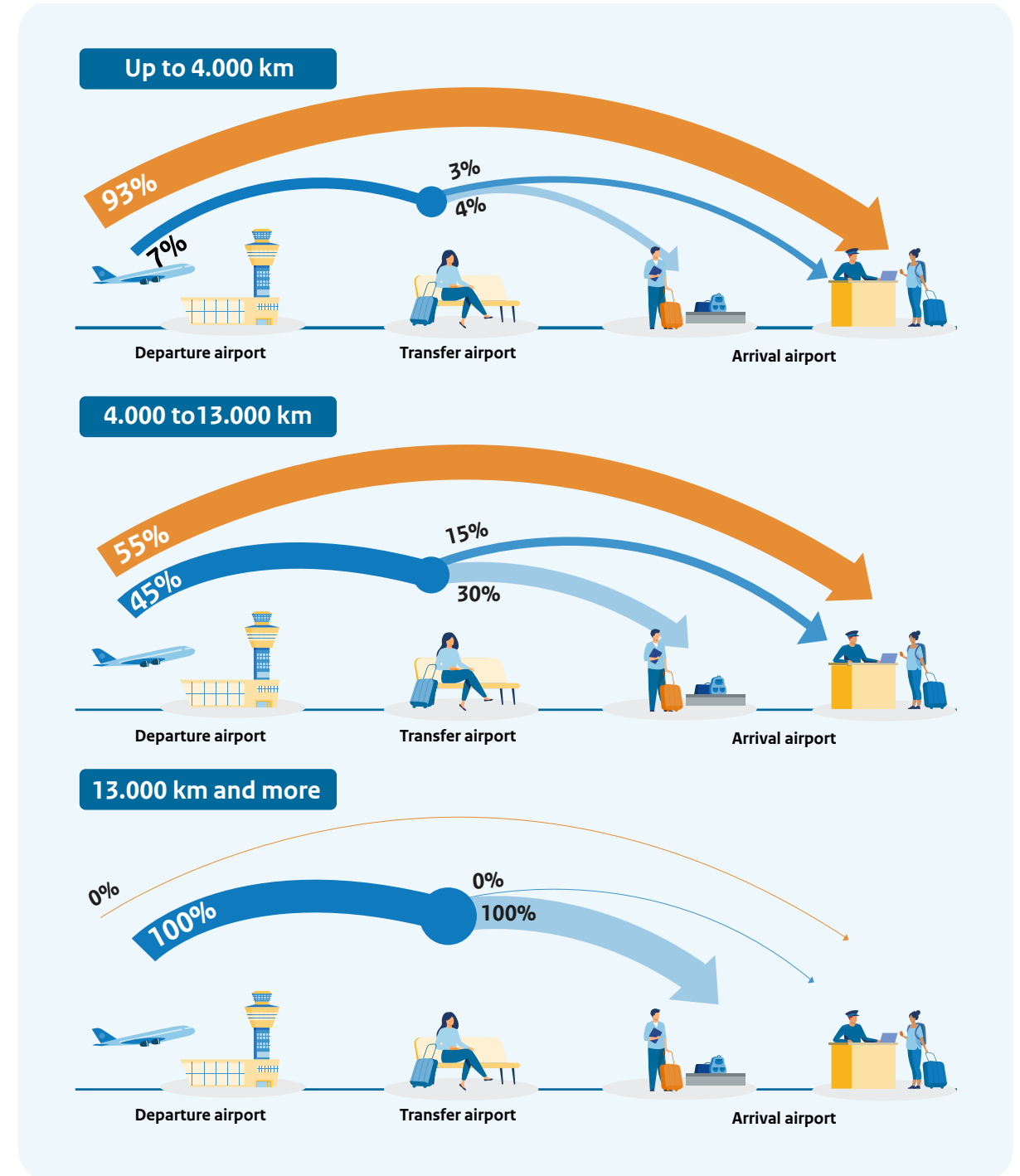
Depending on the journey distance, the relationship between flights with and without transfer varies widely. One clear trend emerges: the greater the travel distance, the greater the likelihood of a transfer during the journey.

Larger journey distances result in longer travel times. After all, to a considerable extent, the duration of the flight is determined by the distance between point of origin and destination.

In the case of a transfer, travellers often spend at least 90 minutes longer en route than with a direct flight; after all they must divert, land, transfer and take off. A transfer of this kind has a major impact on the total journey time for flights over a relatively short distance. Within Europe, for example, it can amount to a doubling of the journey time. For a longer flight, the relative increase in total journey time is more modest.

The willingness-to-pay to avoid a transfer does not increase for longer distances, despite the fact that on longer flights, ticket prices are often higher. In this way, in relative terms, the threshold for making a transfer is reduced, on these longer journey distances.

For extremely long flights (>13,000 km), a transfer is often unavoidable, because there are hardly any ultra-long haul flights. For these long distances, a transfer is therefore the norm.



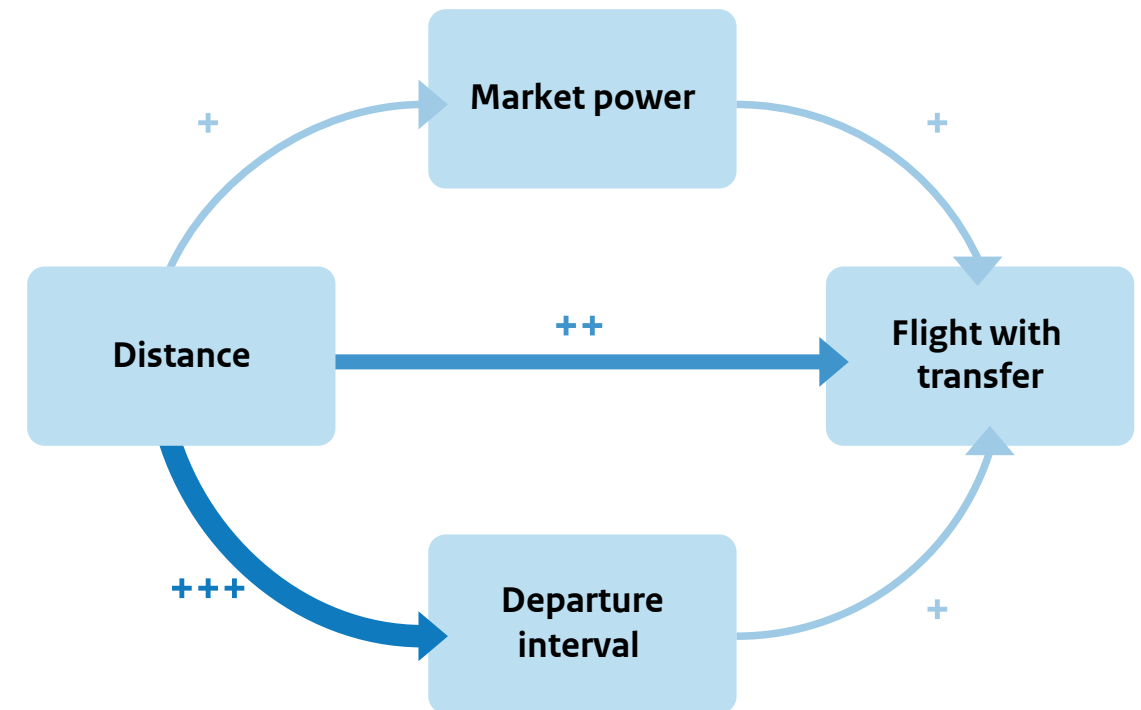


Distance also affects frequency and competition

There are often fewer different airlines active on long-distance flights between a point of origin and a destination. This restricted competition leads to higher ticket prices for direct flights. In the absence of competition, the proportion of passengers that opts for an indirect flight also increases, even for a destination that can be reached directly.

In addition, flight frequency is generally lower, as the distance between the point of departure and the destination grows. For these journeys there are fewer passengers and the airlines fly with larger aircraft. The fact that people are obliged to depart or arrive at specific times can have a decisive impact on their choice of direct or indirect flight. With less frequent flights, the likelihood of a flight with transfer increases.

Direct and indirect effect of distance





3

More transfers for business travellers



Business (in)efficiency

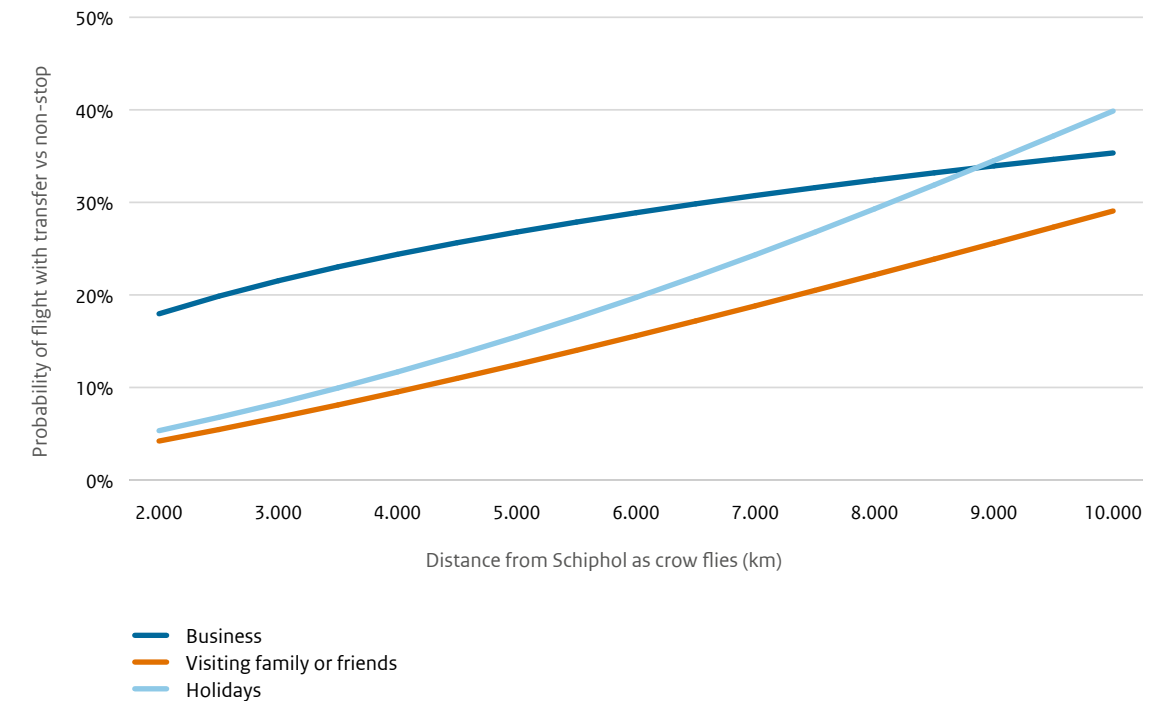
Relevant discrepancies have been observed in the behaviour between groups of travellers with different reasons for travel. For flights covering the same distance, business travellers, for example, tend to transfer relatively more often than holidaymakers.

This can be attributed to the extent to which the traveller is dependent on a specific destination, and the extent to which he or she perceives the journey as necessary. Business travel is more often a necessity than holiday travel, for example due to appointments with clients. In those situations, the destination and moment of travel are often a given. As a rule, holidaymakers have greater freedom in selecting their destination and moment of travel. If obliged to transfer, they often opt out. Business travellers are obliged to transfer in order to reach the intended destination, if no direct connection is available.

Nevertheless, even if direct flight options are available, business travellers also take an indirect flight more often than holidaymakers or people visiting family and friends. By way of illustration, up to distances of around 3,000 km, 22% of business travellers do transfer, as compared with just 8% of non-business travellers. Over longer distances, the differences are smaller. It is however worth mentioning in this connection that the vast majority of flights for a single journey are not longer than 3,000 km, and that the vast majority of passengers, irrespective of their reason for travel, do opt for a direct flight.

Why business travellers more often fly indirectly to a destination that can be reached directly can only be partially explained. One important element appears to be the relatively late moment at which business travellers book their flight. These travellers also attach greater importance to flexibility in terms of arrival and departure times. If there is only 1 direct flight per week, to a destination 3,000 km away, more than half of business travellers will opt for a flight with transfer. In other words, waiting for the direct flight is not often not the most attractive option.

Choice of flight with transfer, while a direct connection is available



Experience with transfers while travelling by plane could also explain the difference between the behaviour of business travellers and holidaymakers. Business airline passengers often have more flying and transfer experience than holidaymakers, which could reduce the barrier represented by the transfer.

Price sensitivity

Business travellers are willing to pay 220 euros to avoid a transfer. This is more than the payment willingness of non-business travellers, which on average amounts to 115 euros. The difference in average travel costs between business and non-business travellers is however considerably higher, because business travellers often book late, with better conditions (cancellation fee, flight schedule changes, etc.) and opt for a more luxury class.



The reason why the willingness-to-pay is higher among business travellers can be attributed entirely to the lower sensitivity to price differences, among this group. The transfer resistance among business travellers is not higher than that among non-business travellers.

This lower sensitivity to price differences among business travellers can be attributed to the special situation involving three parties. In many cases, business travellers do not pay their own bills but charge them on to their employer or client. The client or business owner can subsequently deduct the costs from tax.

At the same time, business travellers are often personally able to gather points for the airline's loyalty programme. Business travellers are fervent points savers. They often put the saved points to private use. The status within the programme can overcome the transfer barriers, for example because business travellers have access to the lounge while waiting for their transfer.

In addition, business travellers often have a high income. This too makes this group less sensitive to higher ticket prices.



4

Developments over time

The preference for direct flights has remained stable over the past few years, although there are indications which suggest a decline in transfer resistance. We draw this conclusion on the basis of four observations.



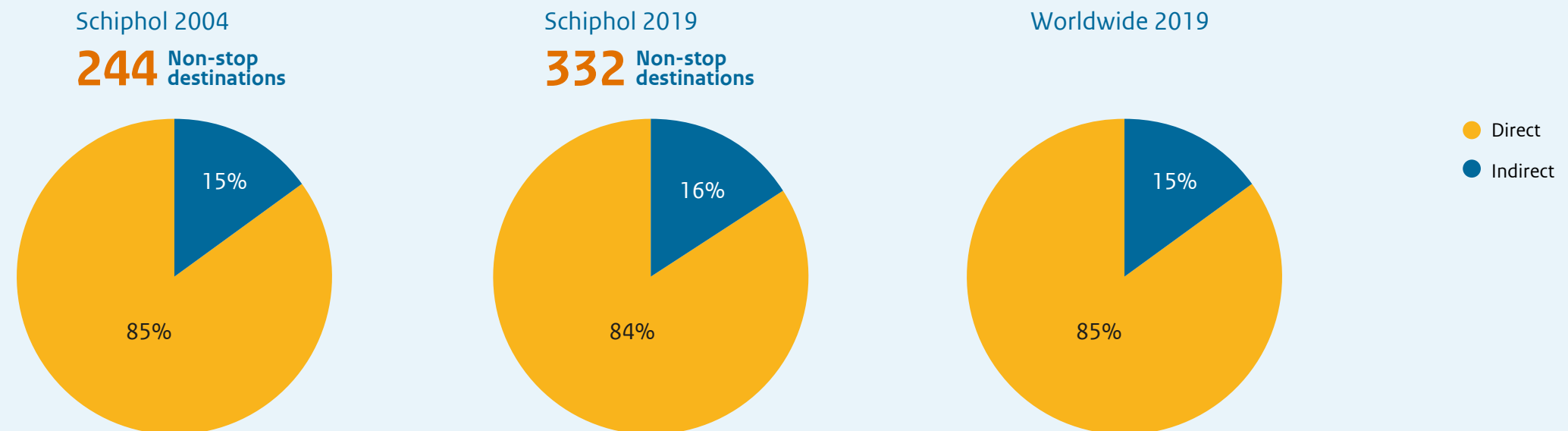
- 1 Observing travel behaviour, we see that the number of flights with transfers has risen slightly over the past 15 years. We limited our study to the situation at Schiphol Airport and flights in which the Netherlands is the country of origin or final destination. This rise coincides with the growth in the number of direct destinations, both continental (+39%) and intercontinental (+31%). However, this has also led to a rise in the number of indirect travel options. Also for specific origin-destination relationships, there is a rise in the number of people who transfer.
- 2 Studies over the past 25 years have shown no rise or fall in the willingness-to-pay for avoiding a transfer. This trend is stable, if corrected for inflation.
- 3 There is no clear observable relationship between willingness-to-pay to avoid a transfer and the travel distance, while there is a trend towards ever longer

flights, with destinations outside Europe. This trend has been boosted among others by price fighters from the Middle East. In relative terms, the barrier for flying with a transfer is further reduced as a consequence.

- 4 Experience of flying and transfers reduces the transfer resistance. Given the popularity of flying in recent decades, a growing group of people satisfy this condition.

The types of passengers in the aircraft also play a role. The proportion of non-business travellers is rising at the expense of the proportion of business travellers. There is a large influx of leisure travellers who are more price-sensitive, while the group of business travellers is growing less quickly.

Share of direct and indirect journeys departing from Schiphol





5 Implications

Thanks to Schiphol Airport, the Netherlands has an extensive network of international destinations. As a result, the residents of the Netherlands have a wide choice of direct connections, and people from abroad can reach our country relatively quickly. Many travellers are also willing to pay for this service. After all, intercontinental flights without transfer are often more expensive than flights to the same destination, with a transfer.



Fewer transfers?

Despite the extensive network of direct destinations, the proportion of flights with the Netherlands as its country of origin or destination remains at the global average. The proportion of flights with a transfer has also not fallen over the past 15 years, despite the considerable improvement in connectivity during that same period.

Climate impact

In most cases, the often expressed idea that flights without a transfer are less harmful for the climate than flights with a transfer is accurate in practice. However, this does not mean that more direct connections are desirable. This could bring about contrary effects, by effectively reducing the obstacle to flying in the first place. Exclusively focusing on as many direct destinations as possible is in and of itself not an appropriate answer to the climate problem.

Network quality

Based on the insights gathered from this study, we can offer a number of considerations for the monitoring of the 'Policy Framework Network Quality' of the Ministry of Infrastructure and Water Management. In that policy framework, network quality is defined as follows: 'the availability of direct connections to preferred destinations'. A connection is direct if there is at least 1 direct flight to the destination, per week.

To start with, this lower limit for frequency could be raised, because for many business travellers, for example, a lower limit of at least 1 direct flight is insufficient.

Secondly, travel options with transfer are not included in the monitoring of the network quality, while this could offer advantages in terms of travel costs, itinerary or in other areas. In particular for long distances, options with a transfer are a welcome addition for the traveller.

Direct and indirect are not interconnected vessels

In any international studies into aviation, it is assumed that the journey including destination are a given. People opt for a flight with transfer if there is no direct connection available.

Based on our study, we have reasons to question this assumption. After all, it takes insufficient account of the possibility of loss of demand. The effect on prosperity is also not correctly estimated. On the one hand, the journey time loss is overestimated if an alternative destination, an alternative journey moment or telemeeting are among the options. On the other hand, flights with a transfer often offer possible savings or other benefits. In a number of recent Dutch studies, this is taken into account.



Acknowledgements

Method

For this study, we made use of existing literature, various datasets and a variety of techniques. The literature was analysed both qualitatively and quantitatively (meta-analysis). The datasets comprised sets with data about the availability and sale of air tickets, passenger flows, air traffic and a broad traveller survey. We also personally approached frequent flyers with a questionnaire.

Background report

For more information on the method used and the results, consult the background report that can be downloaded via the website www.kimnet.nl

Zijlstra, T. & Faber, R. (2024), *Non-stop vliegen. Over de voorkeur van luchtvaartreizigers voor een rechtstreekse verbinding*. Background report. The Hague: Netherlands Institute for Transport Policy Analysis.

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